#### AN ASSESSMENT OF GROWTH RESPONSE OF THE LIVESTOCK SUB-SECTOR TO THE AGRICULTURAL POLICIES AND CREDIT FACILITIES IN NIGERIA

# Tropical and Subtropical Agroecosystems

# [EVALUACION DEL CRECIMIENTO DEL SECTOR PECUARIO DE NIGERIA EN RESPUESTA A POLÍTICAS AGROPECUARIAS Y CREDITICIAS]

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#### **SUMMARY**

#### RESUMEN

This paper examines the growth of the livestock subsector in response to the agricultural policies and credit facilities at the disposal of livestock farmers in The policy objective was to increase Nigeria. livestock production efficiently, while the policy instrument was aimed at facilitating the flow of credit to livestock holders in order to adopt improved husbandry practices at minimal cost. The formal sources of credit include commercial and merchant banks, development banks, Better Life Programme (BLP) and annual government budgetary allocations. Additionally, government sourced funds from international bodies for specific livestock projects. The Agricultural Credit Guarantee Scheme Fund (ACGSF) was established to encourage banks in lending to the sector by providing guarantee against such risks to the tune of 75%. The livestock sub-sector enjoyed favourable credit facilities until 1986 before poultry industry collapsed. Since then, percentage credit from financial institutions substantially declined. This was reaffirmed by the 44% reduction in livestock loans guaranteed by the ACGSF since 1986 to 1995. Similarly, the sub-sector had continually received less percentage of agricultural allocations while that of crop sub-sector increased considerably. Consequent to the dwindling funding, modest aggregate growth of 0.6% per annum in livestock products had been recorded between 1980 and 1995. In relative term, index of livestock production grew marginally by 5.3% (1984 = 100) at the end of 1995. At macroeconomic level, the sub-sectoral contribution to the gross domestic product (GDP) was about ¥5.0 billion with annual growth rate of 2.17%. Overall, credit policies have been ineffective in stimulating the sub sectoral growth. Therefore, modification of some agricultural policies may be required to enhance real growth of the sub sector.

**Key words:** Agricultural policies, credit facilities, livestock output.

Se analizó el crecimiento del sub sector pecuario en respuesta a políticas agropecuarias y crediticias puestas a disposición de los ganaderos en Nigeria. El objetivo de esta política fue incrementar la producción pecuaria eficientemente, mediante el establecimiento de instrumentos que facilitaran el flujo de crédito a los ganaderos para estimular la adopción de nuevas prácticas zootécnicas a un costo mínimo. Las fuentes formales de crédito incluveron banca comercial v de desarrollo, el "Programa Vida Mejor" y las asignaciones presupuéstales. Adicionalmente, se contaba con fondos gubernamentales aportado por organismos internacionales, destinado a proyectos específicos. El Fondo de Garantía al Crédito Agropecuario (ACGSF) se estableció para motivar a los bancos a dar préstamos al sector proveyendo garantías de hasta un 75%. El sub sector pecuario tuvo condiciones crediticias favorables hasta antes del colapso de la industria avícola en 1986. A partir de esa fecha el crédito otorgado por instituciones financieras disminuyó substancialmente. Esto se confirma con la reducción del 44% de las garantías crediticias del ACGSF entre 1986 y 1995. Similarmente, el sub sector ha recibido una menor participación en la distribución del presupuesto del sector agropecuario, mientras que aquel del sub sector agrícola ha sido incrementado considerablemente. En correspondencia con la reducción de fondos, los productos pecuarios, en el período 1980 a 1995, sólo han registrado un crecimiento modesto (0.6%) por año. En términos relativos, considerando 1984 como línea base, la producción pecuaria registro un crecimiento marginal del 5.3%. A nivel macro económico, la contribución del sub sector al PIB fue de \$\frac{\text{\text{\text{\text{\text{\text{PIB}}}}}}{1000} millones con una tasa anual de crecimiento del 2.17%. En resumen, la políticas crediticias no han sido efectivas para estimular el crecimiento del sub sector, por lo que se sugiere que algunas políticas agropecuarias deverían ser implantadas para estimular un crecimiento en términos reales del sector.

Palabras clave: políticas agropecuarias, crédito, producción pecuaria.

#### INTRODUCTION

Sustainable agriculture is a necessity for the improvement of quality of life in a nation. Therefore, most policies in the agricultural sector in Nigeria were formulated with the hope of meeting food requirements of the country, supplying enough agricultural raw materials needed by the relevant industries, and to earn substantial foreign exchange. The livestock sub-sector is supposed to make Nigeria self-sufficient in animal protein needs and to significantly contribute to the national wealth. The latest livestock population census showed that there are about 14m cattle; 22m sheep; 34m goats, 3m pigs and 150m chicken in Nigeria (FLD & PCS, 1992). The monetary value was estimated at \$\frac{\text{\text{\text{W}}}}{2}\$ billion (FLD) & PCS, 1992). The sub-sector therefore contributes about 5% to the gross domestic product (GDP) and over 20% of the agricultural component of the GDP (Lamorde, 1996). However, Nigerian animal protein supply is still far below the minimum recommended level of 35g per caput per day (FAO, 1980). To achieve this target, an average sub-sectoral growth rate of 45.3% between 1981 and 1990 was recommended (FLD & PCS, 1992). In order to attain the growth rate, policies such as low interest rate on loans from financial institutions for livestock production, establishment of specialized institutions (eg. Nigerian Agricultural and Cooperative Bank (NACB) to lend solely to the sector, and National Veterinary Research Institute (NVRI) and National Animal Production Research Institute (NAPRI) to provide biologicals for livestock and to improve genetic and nutritional quality of farm animals, respectively, were formulated. Similarly, a unified system of livestock extension services was adopted to hasten the dissemination of improved animal husbandry practices and research findings to the farmers. Despite these efforts by the government, the Nigerian livestock industry has not supplied enough quantity of animal proteins to Nigerians. It is against this background that this paper attempts to examine:

- (a) Some policy issues towards the enhancement of the sub-sectoral growth.
- (b) Quantification of credit facilities to livestock producers.
- (c) Some recommended strategies that might accelerate growth of the sub-sector.

In this treatise, relevant data were obtained from secondary sources between 1980 and 1995 which were reprocessed or analyzed to reveal the trend of financial allocations, credit flow and growth of the sub-sector.

#### Agricultural policies

The agricultural policies in Nigeria have undergone many changes, which are reflections of changes in government philosophy on the best approach to economic development. There was widespread intervention of government in livestock production, input-supply and extension services. In addition, government also adopted credit controls and other allocation policies in favour of agriculture. By mid 1980s, due to dwindling oil revenues, the Structural Adjustment Programme (SAP) was introduced. This involved minimal administrative control of economic activities, wider scope for private sector initiatives and greater emphasis on economic self-sufficiency. Emphasis shifted to market determination of agricultural prices. An additional measure adopted in 1994 was the direct allocation of foreign exchange to the agricultural sector (CBN, 1995). Therefore, the government put in place some measures to enhance growth of the livestock sub-sector by formulating policy objectives and instruments, respectively.

#### **Policy objectives**

These defined the need for policy adoption of which the objectives were:

- (a) Increased livestock production;
- (b) Improved techniques of livestock production;
- (c) Adequate provision of credit for livestock sub-sector;
- (d) Increased volumes of credit to all categories of producers; and
- (e) Adequate support to ancillary facilities for the livestock production.

#### **Policy instruments**

These were clearly the means of achieving the objectives of livestock credit policies, and were grouped into 4.

- 1. Those instruments that aimed at reducing the dominance of non-institutional lenders in the livestock credit systems. They included:
  - [a] Increased institutionalization of agricultural credits to minimize stiff borrowing conditions.
  - [b] Concessionary interest rate policy (regulated interest rate), and
  - [c] Less rigid conditions of borrowing (moratorium policy)
- 2. Those designed to induce lending institutions to expand credit facilities; viz
  - [d] Incentives to banks (partial loan guarantee under ACGSF, rural banking being part of CBN withholding capital).
- Those intended to ensure effective flow and utilization of credit:
  - [e] Improved credit delivery system (project monitoring by lenders, provision of technical advice to

farmers, giving of credit in kind), and

- [f] Greater reliability in supply of credit (NACB, NLPD for animal fattening).
- 4. Those targeted at compelling banks to comply with government directives:
  - [g] Punitive action against defaulting lending institutions. E.g. defaulting banks are required to deposit shortfall with CNB, deposits neither counts as part of liquid assets nor attract interests; shortfalls are giving to NACB for lending to agricultural sector. These were some of the efforts of the government to boost livestock production in the country.

## Establishment of Specialized Schemes and Financial Institutions

Nigerian Agricultural and Cooperative Bank (NACB)

The NACB was established in 1972 to provide loans specifically to agricultural and livestock enterprises. The Federal Government and CBN are the largest sources of funds to the NACB. The CBN funds are derived as credit shortfalls from banks to the agricultural sector. For instance, between 1982 and 1984, a total shortfall of \(\frac{1}{2}\)302.2 million in agricultural loans was requisitioned from Commercial banks and passed to the NACB (Adebiyi, 1989). Some loans secured by the Federal Government for purpose of agriculture were administered by the NACB.

Agricultural Credit Guarantee Scheme Fund (ACGSF)

It was established in 1977 by decree No. 20. The decree stipulated a take-off grant of ¥100 million, which was funded by the Federal Government (60%) and Central Bank of Nigeria (CBN) (40%). The ACGSF was to stimulate the flow of credit to farmers and to protect banks against risks inherent in livestock production. The Fund guarantees a refund of 75% of defaulted loans net of the amount recovered by lending banks. Maximum cover against loan to individual farmers was ₹50,000, but decree No.18 of 1988 amended it to \$\frac{1}{8}100,000; for cooperative society or corporate body it was pegged at N1million. Ventures for which loans could be guaranteed by the Fund include crop production, livestock, fisheries, agroallied industries and agricultural plant line. Operating of the Fund commenced in April, 1978.

Nigerian Agricultural Insurance Company (NAIC)

The Federal government set up NAIC in 1987 to provide insurance cover to farmers against natural

disasters and other risks associated with agricultural activities. One of the guidelines stipulated by the CBN to assist in operations of NAIC is the mandatory insurance cover on loans granted by banks to the agricultural sector under the ACGSF.

The Small and Medium-Scale Enterprises Aplex Unit Loan Scheme (SMEAULS)

The CBN established the SMEAULS in the Bank in 1990 to administer credit component and other related activities of the World Bank loan to facilitate project implementation. This was done to minimize the problem of limited credit to Small and Medium-Scale Enterprise (SME). The CBN and the Federal Ministry of Finance negotiated for and obtained a World Bank loan for the SMEs. The total project was reported to have cost \$451.8 million, of which the World Bank provided \$270 million (64%) (Ukeje et al. 1993). Entrepreneurs were expected to provide \$79.7 million. The National Livestock Project Department (NLPD) executed the livestock project implementation. Much of the funds from the World Bank was disbursed to individuals for animal fattening on short-term basis. In the Southern Nigeria, poultry projects were also funded.

## Allocations, Loans and Advances to the Livestock-related Activities

Government budgetary allocations

Table 1 shows government capital allocation between 1980 and 1995. The share of agriculture increased from 4.9% in 1980 to 17.9% in 1981, then fluctuated downward to 2.4% in 1992, and least in 1993 and 1994 (1.9 and 1.8% respectively) before it marginally rose to 2.0% in 1995. The trend reflected government thinking on where emphasis should be placed in a particular fiscal year in addressing economic problems of the nation. In general, most allocations were done at sectoral level with no details on breakdown to the sub-sectors. However, the livestock sub-sector usually receives fair proportion of the sectoral allocations through the Federal Livestock Department and Pest Control Services (FLDP&CS) which were used in the production and procurement of biologicals to control outbreak of economic diseases of livestock, establishment of grazing reserves, funding of research institutes, etc. For instance in 1993, 1994 and 1995, the Federal government gave special grants to the NVRI to pioneer quail production. The institute increased the population of the birds from 100 in 1993 to about 20,000 a year later. It also developed two new drugs: Lamstreptocide and Demacur from local materials for treatment of skin diseases in animals and humans. Similarly, the NAPRI developed a strain of domestic fowl (Shika-Brown) through the process of genetic engineering. In the 1993 and 1994 fiscal

years, allocations to the economic services were bloated up for special priority projects (construction sector).

Loan facilities and advances by commercial and merchant banks

Table 2 presents sectoral distribution of loans and advances from commercial and merchant banks. The Banks provide credit to agriculture and other sectors in line with credit policy prescriptions. Total commercial banks' credit to agriculture rose from №590.6 million in 1981 to №7,888.8 million in 1994. Similarly, total credit to the sector by merchant banks increased from №28.6 million in 1981 to №3,135.9 million in 1994. When pooled together, there was consistent rise in volume of credit to the sector, given mean annual growth rate of 31.8% between 1981 and 1994. The production sectors received loan and advances from the Banks at an annual incremental rate of 19.7% (Table 2). Several reasons accounted for the receipt of

high volume of credit by the sector. Many banks complied with the regulatory guidelines to avoid penalty associated with default. There had been steady rise in number of commercial and merchant banks during the period under study (1981-1994). instance, the number of operating commercial and merchant banks were 20 and 6 in 1981 but increased to 65 and 51, respectively, in 1994 (CBN, 1995). The existence of the ACGSF created more confidence in banks to grant loans for agriculture-related ventures. Also, the establishment of NIC encouraged more entrepreneurs to go into crop and livestock farming. The number of insured farmers was reported to have grown from 1 in 1988 to 97,189 in 1992 with a total premium of \text{\tin}\text{\texi}\text{\text{\texi}\text{\text{\text{\texi}\text{\text{\text{\texi}\text{\texi{\text{\text{\text{\tetx{\texi}\titt{\texi}\titt{\text{\texi{\text{\texi}\text{\text{\t ₩1,696,083,853.00 (Ukeje *et al.*, 1993). Cumulative claims settled from inception to 1992 amounted to N69,668,350.00. However, receipts for livestock activities suffered a set back from 1986 because of collapsed of poultry industry.

Table 1. Federal Government Capital Expenditure (N' million) between 1980-1995

	Activities									
_	Admin.	Econ. S	Services	Social Services	Transfers					
Year		(Agric. &	: Water)*							
1980	1,288.5	5,448.7	(4.9%)	1,324.0	334.4					
1981	720.1	3,548.4	(17.9%)	1,380.0	48.4					
1982	763.2	3,036.4	(7.7%)	1,399.7	2,751.0					
1985	459.6	892.7	(4.0%)	1,154.0	5,107.0					
1987	1,816.2	2,159.7	(6.9%)	619.1	1,777.5					
1990	2,919.9	3,485.7	(6.6%)	2,096.0	15,547.0					
1993	8,081.7	60.922.3	(1.9%)	3,575.3	24,500.1					
1994	8,735.1	68,722.6	(1.8%)	4,994.4	37,960.8					
1995	13,337.8	43,149.2	(2.0%)	9,215.6	55,435.7					

<sup>\*</sup> Allocations to agric. and Water resources were expressed as % of total ann. expenditure. Sources: Fed. Min. Finance 1996, CBN 1995.

Table 2. Distribution of commercial and merchant banks loan (N1 million)

	Production sectors											
Year	Agric.	/Fishery (%)*	Manufacturing	Mining	Construction	Total						
1981	619.2	(6.7; -)	2,964.0	97.0	1,847.2	9,294.9						
1982	826.7	(7.3; 33.5)	3,465.2	107.1	2,181.7	11,302.1						
1985	1,430.4	(10.2; 26.4)	3.809.0	283.5	2,790.9	13,973.1						
1987	2,754.8	(12.7; 34.9)	6,531.6	281.4	3,204.2	21,697.7						
1989	4,285.6	(15.5; 17.6)	9,192.2	321.0	3,639.6	27,676.2						
1990	5,275.0	(15.8; 23.1)	10,975.1	4.4.1	3,738.4	33,366.9						
1991	6,354.5	(15.5; 20.5)	15,454.4	634.4	4,262.2	40,953.5						
1992	8,574.5	(16.1; 34.9)	21,181.3	871.1	4,802.2	53,197.0						
1993	13,643.4	(18.6; 59.1)	31.974.2	939.6	6,567.2	73,322.7						
1994	21,024.7	(22.7; 54.1)	49,391.1	1.541.4	11,559.9	92,752.5						

<sup>\*</sup> The two sets of figures in parenthesis represent % share agric. of loans/advances and ann. % rise in the loans, respectively. Source: CBN ann. reports 1995.

NACB distribution of loans and advances to agricultural sub-sectors

The sub-sectoral distribution of credit facilities by the NACB is indicated in Table 3. Total loans disbursed in 1993 alone by the Bank amounted to \$\frac{\text{N4}}{715.5}\$ million in respect of 436,526 agricultural projects. livestock sub-sector accounted for 28.3% of the total amount (Table 3). Credit disbursed for on-lending purpose took about a third of the total. Similarly, the dominance of direct credit was sustained in 1992 and The small-holder scheme is credit scheme designed by the Bank for animal fattening by people that hold only small number of animals. While the amount of credit to this sub-group increased from N423.2 million in 1992 to N602.2 million in 1993, its relative share of aggregate credit decline marginally from 13.1% in the proceeding year to 12.8% in 1993. Direct lending for poultry production consistently declined over some years because of low activity in this industry. This was because of low returns since cost of production had been very high due to restriction of importation of feeds and day-old chicks in 1986. The second livestock programme was loan granted by the World Bank to the NLPD but which was re-routed through the Bank for animal fattening It also aimed at settling 60 pastoralist families in grazing reserves, developing earth dams and construction of rural roads. At the end of 1991, 41 families (68.3%) were settled, 9 earth dams dug and

110 km roads constructed (NACB, unpublished). Under the First Project, N41,440 million had been disbursed to 8,043 small-holder livestock farmers to support their productive activities. The Table 3 could not cover several years because of paucity of information.

#### Better Life Programme (BLP)

Contribution of BLP to agriculture and livestock subsector is depicted in Table 4. The BLP was introduced to improve the quality of life of the rural woman. Its contribution to livestock industry increased rapidly. From 13 livestock projects that cost N120,000 in 1990, the number increased to 801 projects with corresponding increase in total sum of \$\frac{\text{N4}}{538,700}\$ in 1993. Similarly, the share of livestock sub-sector from BLP increased from 2.1% in 1990 to an outstanding contribution of 24.5% in 1993. Of the livestock projects, goat and poultry farming seemed to be preferred (Table 4). A survey by the CBN revealed that number of women cooperative bodies under the BLP increased to 11,873 in 1993 from 9044, 5790 and 3150 in 1992, 1991 and 1990, respectively. The improvement resulted from expanded market outlet and extension services. The programme was renamed as Family Support Programme (FSP) following a change in government in November 1993. Since then it had not been clear how these projects are performing.

Table 3: NACB sub-sectoral distribution of loans and investments.

Activities	No. of projects	1992 loans	% of total	No. of	1993 loans	% of total
		(₩ 1 M)		projects	$(\mathbb{H}^{1}m)$	
Direct lending						_
Arabic crops	792	193.5	6.0	1,300	257.6	5.5
Poultry	472	83.5	2.6	680	112.4	2.4
Other livestock	307	270.2	8.3	450	417.8	8.9
Small holders scheme	182,782	423.2	13.1	405,895	602.2	12.8
Second livestock	14,591	89.1	2.8	21,468	147.4	3.1
Development project						
Agro-allied	46	152.3	4.7	85	152.3	3.2
Cattle	291	36.0	1.1	350	52.4	1.1
Fishery	129	108.7	3.4	140	280.3	5.9
Oil palm	21	177.0	5.5	30	332.1	7.0
Mixed farming	101	38.4	1.2	180	49.8	1.1
Total	203,036	3,234.2	100	436,526	4,715.5	100

\* Source: NACB 1994.

Table 4. Better Life Programme (BLP) on agricultural production and extension services

				Y	ear				
		1990		1991		1992	1993		
	No. of	Amt.(N'000)							
Activities	projects	(%)	projects	(%)	projects	(%)	projects	(%)	
A Livestock	13	120.0	194	502.8	276	667.9	801	4,538.7	
		(2.1)		(7.1)		(7.4)		(24.5)	
Goat farm	10	35.0	49	176.5	80	205.5	443	775.0	
Cattle ranch	NA	NA	104	120.0	56	64.6	7	303.0	
Poultry farms	NA	NA	3	25.0	12	73.1	121	2403.7	
Piggery farms	1	5.0	19	60.0	98	56.7	165	497.0	
Rabbitry farms	NA	NA	9	15.3	12	18.0	30	560.0	
Fish pond	2	80.0	10	105.0	18	250.0	35	-	
B Extension	30,209	3,203.7	38,221	3,326.5	92,368	4.085.1	58,921	4,979.8	
Services		(56.0)		(47.0)		(45.5)		(26.6)	
C Development	785	845.7	314	411.6	293	1,069.5	2,734	3,660.5	
support services		(14.8)		(5.8)		(11.9)		(19.3)	
D Market support	272	1,551.0	632	2,843.5	524	3,159.0	403	5,538.0	
Services		(27.1)		(40.1)		(35.2)		(29.6)	
Grand total	31,279	5,720.4	39,361	7,083.4	93,461	8,981.5	62,859	18,717.0	

NA - Not Available. Figures in parenthesis represent % annual livestock share of BLP. Source: CBN 1994 Nation-wide annual survey of BLP activities

Number and Value of Loans Guaranteed by ACGSF

Between 1980 and 1995, the number and value of loans guaranteed by the ACGSF was 215, 433 and №1,242.8 million, respectively (Table 5). The cumulative claims settled since inception to 1993 total 440 and valued at \(\frac{14}{2}\),943,700 (Uko, 1997). A total of 14,255 loans and valued at ¥52.3 million were granted to small-scale farmers during 1993. This represented 91.9 and 64.7% of the total number and value, respectively. The food crops sub-sector while livestock and fishery accounted for 11.0% of the value dominated the loans guaranteed during 1995. But prior to this, the livestock sub-sector dominated loan portfolio under the scheme between 1980 and 1985, accounting for an average of about 58% of the total loans per annum. Poultry industry was particularly responsible for the lion share enjoyed by the subsector. This was because the industry had a boom during this period; hence financial bodies opened credit lines to the poultry investors. However, following restriction on the importation of chicks, animal feeds and other inputs by the Federal government in 1986, there was massive dis-investment from poultry industry with resultant collapse of the industry. This adversely affected the fortune of the livestock sub-sector. The dominant position of food crops in loan acquisition in the later period reflected the Federal government drive towards self-sufficiency in food production. It may also be due to the introduction of SAP which favoured expansion of enterprises that fully sourced their production inputs locally.

#### **Growth Response of Livestock to Credit Facilities**

*Index of livestock production (1984 = 100)* 

Table 6 presents the index of agricultural production by type of activity. The output of livestock sub-sector declined by 11.3 and 4.2% in 1980 and 1983, respectively. Thereafter, respective growth of 8.8 and 4.3% were achieved in 1984 and 1985. The average modest growth of about 5.3% in 1980 through 1995 in livestock production was explained by sustained drive to minimize effect of epizootic diseases and pests by the FLD&PCS. Inadequate feed and vaccines, which became very expensive to import given the reduced value of naira, adversely affected poultry segment of livestock sub-sector and, in turn, the overall performance of the sub-sector. It is expected that the fair improvement on crop production should boost livestock growth since the latter heavily depends on the former. However, that was not observed because of immense human population pressure on the food crops.

Table 5. The number and value (N<sup>1</sup>000) of loans guaranteed by purpose by the agric, guaranteed scheme fund.

Year			Livestock					Total fo	Total food crops		Total cash crops		Grand total	
	F	oultry	(	Cattle	Sl	пеер	Total	livestock	=	(%)		(%)		
	No.	N	No.	N	No.	N	No.	N (%)						
1980	234	19,536.3	13	346.9	-	-	263	21,064.8 (68.1)	472	5,176.3 (16.7)	-	_	945	30,945.0
1981	246	20,802.9	17	3,297.4	-	-	275	25,147.5 (70.6)	702	7,444.7 (20.9)	107	1,032.7 (2.9)	1,295	35,642.4
1982	269	20,345.1	47	446.8	-	-	320	21,835.9 (68.7)	658	5,706.4 (17.9)	22	580.5 (1.8)	1,076	31,763.9
1983	254	20,167.4	94	587.7	-	-	359	21.789.7 (60.0)	736	8.202.6 (22.6)	50	334.0 (0.9)	1,333	36,307.5
1984	207	10,702.1	314	919.6	-	-	536	11,816.5 (47.9)	808	3,606.4 (14.6)	30	280.0 (1.1)	1,642	24,654.9
1985	181	11,365.1	512	1,516.7	-	-	756	14,158.5 (32.0)	1,909	12,498.0 (28.2)	36	2,081.2 (4.7)	3,337	44,234.8
1986	338	20,535.8	331	3,102.9	-	-	715	25,804.4 (37.7)	4,204	33,405.3 (48.8)	190	2,112.3 (3.1)	5,203	68,417.4
1987	578	21,078.7	285	4,368.1	-	-	1,005	29,387.9 (28.8)	13,674	56,906.6 (55.7)	1,027	7,162.0 (7.0)	16,209	102,152.5
1988	331	10,848.5	342	3,622.5	38	446.0	866	18,480.0 (15.6)	21,426	77,949.9 (65.7)	1,306	12,150.2(10.2)	24,538	118,611.0
1989	179	5,675.7	195	2,230.8	68	239.9	540	7,874.6 (6.1)	29,669	00,013.1 (77.3)	2,473	10,772.8 (8.3)	34,518	129,300.3
1990	148	3,127.1	147	1,334.4	61	193.8	427	4,967.2 (5.0)	27,196	79,869.6 (81.1)	1,020	4,085.6 (4.1)	30,704	98,494.4
1991	102	1,559.7	332	2,532.5	26	79.0	509	7,446.9 (9.1)	19,320	64,944.8 (79.1)	977	4,708.0 (5.7)	22,014	82,107.4
1992	76	4,022.7	100	801.5	216	806.4	432	6,056.1 (6.6)	20,067	76,260.7 (70.6)	148	4,984.5 (5.4)	22,454	91,953.1
1993	56	3,314.3	331	2,081.5	1	5.0	390	55,505.8 (6.8)	14,103	70,252.0 (86.9)	389	1,756.9 (2.2)	15,514	80,845.8
1994	69	4,007.4	525	5,362.5	53	618.0	669	10,550.9 (10.2)	14,295	81,972.4 (79.4)	765	5,656.4 (5.5)	16,572	103,186.0
1995	162	10,287.5	540	6,564.0	29	351.0	753	18,047.5 (11.0)	15,252	21.067.6 (73.7)	867	11,017.3 (6.7)	18,079	164,172.1

- Not available.

Source: CBN 1996 annual reports.

#### Estimated output of livestock products

The livestock sub-sector grew at a slow rate of 0.6% per annum by 1995 (Table7). The slow growth was due largely to the poor performance of the poultry unit which output had been constrained by high cost of feeds, reduced feed quality, high cost of drugs and scarcity of chicks. Hence production of poultry meat declined by 3.2% while egg production dropped by 4.8% annually. The output of beef, mutton and pork, however, increased by 3.3, 3.6 and 10.4%, respectively (Table 7), owing to the success in the control of major livestock diseases like rinderpest, contagious bovine pleuro-pneumonia (CBPP) etc. The FLD&PCS distributed over 9 million doses of both rinderpest and CBPP vaccines to the States and Federal Capital Territory, Abuja during the 1992/93 vaccination season (Uko, 1997). The federal government further supported a three-year CBPP eradication programme by releasing N25 million towards the end of 1992 (Uko, 1997). Fish production fell sharply by about 48.4% in 1993 below production of the preceding year

in spite of efforts made during 1993 by increased supply of fingerlings and finishing equipment. The observed decline in both the industrial and artisanal sub-sectors was attributed to water pollution, oil spillage and escalating cost of fishing inputs.

Contribution of the livestock to the gross domestic product

The gross domestic product (GDP) at 1984 constant factor cost was \$\frac{1}{2}103.21\$ billion in 1995 with annual growth rate of 4.6%. All the agricultural sub-sectors except fishery, which showed a decline of 1.95%, contributed to the moderate annual increase up to 1995 (Table 8). The agricultural sector accounted for \$\frac{1}{2}39.7\$ billion or 38.4% of the GDP while the livestock subsector ranked second after crops both in quantum and annual % growth (Table 8). However, the apparent success of livestock sub-sectoral contribution was due to increase in price of livestock products and not its size.

Table 6: Index of agricultural production by type of activity (1984=100)

Year	Commodity									
_	Crops	Livestock	Fish	Forestry	Aggregate					
1980	92.0 (2.3)	75.1 (-11.3)	153.4 (5.2)	106.5 (1.3)	92.5 (0.1)					
1981	93.6 (1.7)	88.4 (17.3)	132.7 (-13.5)	106.5 (0)	95.2 (2.9)					
1982	95.7 (2.2)	96.1 (8.7)	136.8 (3.1)	105.7 (-0.8)	98.3 (3.3)					
1983	90.5 (-5.4)	91.9 (-4.2)	146.9 (7.4)	99.0 (-6.3)	93.9 (-4.5)					
1984	100.0 (10.5)	100.0 (8.8)	100.0 (-31.9)	100.0 (1.0)	100.0 (6.5)					
1985	103.5 (3.5)	104.3 (4.3)	62.3 (-37.7)	102.9 (2.9)	104.6 (4.6)					
1986	111.2 (7.4)	108.1 (3.6)	69.5 (11.6)	106.1 (3.1)	108.3 (3.5)					
1987	123.4 (11.0)	103.9 (-3.9)	66.8 (-3.9)	106.3 (0.2)	116.1 (7.2)					
1988	151.7 (22.9)	110.4 (6.3)	85.7 (28.3)	109.1 (2.6)	138.5 (19.3)					
1989	169.6 (11.8)	117.8 (6.7)	89.2 (4.1)	112.7 (3.3)	153.0 (10.5)					
1990	180.0 (6.1)	157.1 (23.2)	77.4 (-13.2)	117.1 (3.9)	167.5 (9.5)					
1991	212.5 (18.1)	160.7 (2.3)	84.3 (8.9)	119.5 (2.0)	191.7 (14.4)					
1992	233.3 (9.8)	159.3 (-0.9)	84.3 (0.0)	122.2 (2.3)	206.4 (7.7)					
1993	241.1 (3.3)	161.6 (1.4)	62.9 (-25.4)	124.7 (2.0)	211.4 (2.4)					
1994	249.4 (3.4)	164.1 (1.5)	67.1 (6.7)	128.0 (2.6)	218.1 (3.2)					
1995	257.9 (3.4)	171.0 (4.2)	74.0 (10.3)	130.8 (2.2)	226.0 (3.6)					
Av. growth rate (%)	7.06	5.29	-2.49	1.44	6.27					

Sources: Federal Office of Statistics (FOS) 1996. FAO 1988 Production Yearbook (Forestry only), CBN 1994 annual agric. Surveys, Federal Ministry of Agriculture 1994, Figures in parenthesis represent % annual growth.

Table 7: Estimated output of the national livestock products ('000 tonnes)

				Yea	r				
Products	1986	1987	1988	1989	1990	1991	1992	1993	Annual
									growth rate
									(%)
Livestock	1,162	1,117	1,091	1,114	1,204	1,192	1,204	1,212	0.6
Poultry	67	56	54	58	57	53	56	54	-3.2
Goat meat	192	206	209	190	179	182	185	188	-0.3
Mutton	68	75	81	62	84	85	87	88	3.6
Beef	223	232	260	279	279	280	281	283	3.3
Pork	33	34	39	39	25	37	49	62	10.4
Milk	180	182	188	243	243	244	245	243	4.3
Eggs	399	332	260	343	337	311	301	291	-4.8
Fish Products	362.6	481.7	357.2	363	315	343	343	177	-2.4

Sources: FOS, FAO 1988 Production Year Book, CBN Annual Agric Surveys, Reports from Federal & States Ministry of Agric & Water Resources.

#### DISCUSSION

Several reasons accounted for the poor growth of the livestock sub-sector in response to credit facilities. High proportion of the loans were mainly used for animal fattening. Precisely, loans obtained from the World Bank through NLPD and those received by livestock farmers from the NACB in 1992 through 1996 to the tune of \$\frac{14}{2}0.74m\$, \$\frac{14}{2}1.20m\$, \$\frac{14}{2}0.87m\$, \$\frac{14}{2}1.34m\$ and \$\frac{14}{2}0.62m\$, respectively, were used essentially for animal fattening programme. In other words, there had been persistent depletion of animal resources with no deliberate effort to multiply and increase the resources. The subsectoral growth can be initiated and sustained

in real terms by rapid multiplication. However, it is known that economic and genetic traits of the indigenous livestock are low. Hence, it has once been suggested that the first step in the development of Nigeria livestock industry should be a thorough evaluation of all available local breeds with parallel studies on cross-breeds to justify the use of exotic breeds (Uko and Alaja, 1996). Once this is done, extensive breeding programme could be done to develop improved Nigerian breeds of livestock. Earlier attempts to upgrade the local animals genetically were abandoned for lack of adequate funding.

There is general dearth of information on agricultural polices in many countries of the world. However, it has recently been shown that the agricultural sector in Nigeria typifies the situation in African continent. For instance, over the past 40 years, aggregate agricultural output in Africa increased by 2.5 % per annum compared to 2.9 % in Latin America and 3.5 % in developing Asia (Haggblade *et al.*, 2004). Similarly, Africa's share of world agricultural exports for the same period fell from 8 % to 2 %. Consequently, Africa has become a net importer instead of its earlier position as food exporter. Some reasons have been advanced for the agricultural growth discrepancies between African and developing Asia. Whereas in Asia, regime survival is dependent on agricultural

development and food security, in Africa it is more a question of nation building. With no external threats, African leaderships have opted for control rather than development (Holmen, 2004). In addition, African states do not put much faith in the ability of small holders to improve productivity. Instead, imports have often been deemed a more practical way to satisfy basic food requirements of their citizenry. Importantly, peasant farmers in African pay the highest prices in the world for chemical fertilizer. Likewise, with high interest rates of 46 % in Ghana and 48 % in Malawi (Holmen, 2004), agricultural credit is unavailable for most peasants. Hence many peasants in Africa find it difficult to modern agriculture and improve on productivity of crop and livestock.

Table 8. Contribution of livestock sub-sector and other sub-sectors to the Nigeria gross domestic product (GDP) at 1984 constant factor cost (₩ million).

	Sectors or sub-sectors									
Year	Crops	Livestock	Forestry	Fishing	Crude Petroleum	Mining	Manufacturing			
1981	17,840.0	3,822.3	1,283.8	1,514.6	9,866.5	882.5	6,964.2			
1982	18,247.0	4,042.9	1,218.1	1,574.3	8,741.0	893.4	7,860.7			
1983	17,724.0	4,401.3	1,240.7	1,643.2	8,465.5	681.6	5,549.4			
1984	16,920.0	4,474.7	1,264.0	1,140.8	9,569.4	585.8	4,926.2			
1985	20,977.0	4,793.0	1,286.8	737.5	10,379.1	264.1	5,903.5			
1986	23,345.0	4,720.4	1,427.1	864.0	9,834.7	194.4	5,673.9			
1987	22,411.0	4,852.5	1,444.6	681.8	8,871.8	215.7	5,963.2			
1988	24,831.0	4,973.9	1,465.3	1,003.0	9,590.9	237.4	6,729.5			
1989	26,076.6	5,073.9	1,109.3	1,590.3	11,034.2	254.6	6,840.2			
1990	27,206.7	5,174.8	1,196.7	1,699.0	11,645.8	265.4	7,361.4			
1991	28,431.0	5,092.0	1,232.6	1,767.0	12,717.2	274.7	8,046.0			
1992	29,283.9	5,137.8	1,260.9	1,590.3	13,060.5	283.1	7,657.2			
1993	30,133.2	5,168.7	1,286.2	1,192.7	13,086.6	296.6	7,341.0			
1994	31,037.2	5,220.4	1,319.6	1,115.2	12,746.4	305.5	6,974.0			
1995	32,030.4	5,283.0	1,336.8	1,126.4	12,848.5	313.5	7,113.4			
Ann										
growth(%)	4.15	2.17	0.29	-1.95	1.97	-10.1	0.05			
Mean	24,432.9	4,815.4	1,291.5	1,282.6	10,830	403.2	6,726.9			

Sources: FOS 1988, Lagos, National Planning Commission 1995 (Currency exchange rates: 1980-1986  $\frac{1}{1}$  = \$2; 1987-1989  $\frac{1}{1}$  = \$0.200; 1990-1992 =  $\frac{1}{1}$  - \$0.067; 1993-1997  $\frac{1}{1}$  = \$0.020.

#### SUGGESTED POLICIES AND STRATEGIES

To attain annual livestock growth rate of 45.3% in Nigeria, emphasis must be placed on piggery and poultry production in the Middle and Southern Nigeria in the short-run because of their considerable potentials for rapid reproduction and production. Government should review the policy of outright ban on importation of chicks and feeds and adopt a gradual withdrawal approach until such a time that the country can produce these inputs in sufficient quantity. For the long-run strategy, government has to adequately fund extensive studies in genetic engineering towards

development of the Nigerian improved breeds of livestock. Mix farming should be encouraged especially among the rural dwellers for ruminant production to optimize efficiency of resource utilization. Government is encouraged to subsidize cost of veterinary drugs and biologicals as it does for crop inputs in order to reduce cost of livestock production. To minimize loan repayment default, farmers should be sensitized to form co-operative groups for easy access to loan, lower the transaction cost, reduce the rate of loan diversion and enhance spread of credit to many of livestock farmers. As part of corporate policy, lending institutions should adopt

financial innovation such as provision of mobile banking services at times and hours convenient to farmers in rural areas to effectively reach the target group. At farm level, credit to the farmers should be based on incremental investment to guarantee repayment ability. To reduce financial risks in livestock production ventures, policies should stress the role of formal insurance firms in minimizing the risks instead of over reliance on the ACGSF alone as cover for lending institutions and NAIC for farmers. In a related problem, an upward review of loan size from \(\frac{1}{2}\)1 million under ACGSF to cooperative bodies is necessary to make formation of the societies A programme like River Basin attractive. Development Authority is rather all embracing and too large in scope to be efficiently implemented. A better approach may be for such project to be undertaken in smaller scale before replication if benefits are found to outweigh cost. More grazing reserves should be established to reduce high population pressure on the existing ones, minimize environmental degradation and social conflicts. Establishment cost should be born by the three tiers of government. In order to maintain the infrastructure, agreed rents should be collected from pastoralists that settle in a particular reserve to offset cost of establishment and its running. In establishing the reserves, socio-economic needs of the pastoralists must be considered because they have to interact with other groups in a society to meet their needs. The Unified Extension System which incorporates ADP staff, selected staff from ministry of agriculture, research institutes, universities should be adopted. The rural populace should be the area of concentration of extension activities as it is the major sustainer of the livestock sub-sector.

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