

EVALUATION OF THE EXTENSION ACTIVITIES OF THE NATIONAL LIVESTOCK PROJECT DIVISION, KONTAGORA, NIGERIA.

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QUINTADA

An evaluation study of five commodity-based livestock extension models of the Kontagora district office of the National Livestock Project Division (NLPD) under Nigeria's Second Livestock Development Plan (SLDP) was carried out between 1992 and 1996. The adoption rates for the models were 27.8% for the Small Holder Cattle Fattening Scheme (SHCFS), 16.3% for the poultry model and 14% for the piggery model. All the adopters of the SHCFS received virtually all their inputs at subsidised rates through the NLPD. In contrast, virtually no extension service or inputs were provided to the poultry and piggery models, hence the lower adoption rates, despite strong evidences of socio-economic relevance. The correction of the extension delivery defects indicated, and a major policy re-orientation towards the development of poultry and pigs hand-in-hand with cattle to alleviate Nigeria's animal protein deficit, are recommended.

INTRODUCTION

Nigeria has never lacked in well articulated plans and strategies for livestock development, but unfortunately these have always resulted in sporadic successes, low growth rate and continuous deficits in animal protein supplies (Ikede, 1989 and Alonge, 1999). This has been attributed to inconsistent government policies, prevalence of diseases, poor extension delivery and consequently poor adoption of improved livestock management practices (ILMP). The First Livestock Development Plan (FLDP) (1976-1983) funded with a loan volume of 21 million US dollars from the world bank, was designed to promote improved methods of beef production by

nomads, semi-nomads and the larger commercial producers which included some government parastatals. The FLDP however recorded limited success because the project targets were reported to be too diverse and nebulous while the selected projects were capital intensive (Ojutiku, 1985).

The Second Livestock Development Plan (SLDP) (1987-1995), which was also funded to the tune of 120 million US dollars was expected to promote simple improvements to traditional mixed farming system and thereby giving the private sector a greater role in livestock production and marketing (Bincan, 1987; NLPD, 1991). At the inception of FLDP, the National Livestock Project Division

NLPD) was created in the Federal Department of Livestock and Pest Control Services (FDL & PCS) to implement the technical aspects of the SLDP and as a livestock extension delivery outfit. The Nigerian Agricultural and Cooperative Bank (NACB) owned by the federal government was charged with implementing the credit component. The NLPD operates nationally through 26 districts including the Kontagora office.

The need to evaluate extension activities to detect failures or successes and design pertinent modifications or continuation has been highlighted (Darcie, 1978 and Ukoh, 1990). This provides the justification for this study as Nigeria's SLDP is already concluded and a new livestock development plan may soon take off. The study's objectives included the evaluation of the extension delivery by the Kontagora NLPD office on five commodity-based livestock extension models, the level of adoption of improved livestock management practices, factors influencing adoption rates and the impacts of extension services on livestock production.

MATERIALS AND METHODS

Synopsis of the extension service

The activities of Kontagora office of the NLPD covers an area of 113,163 sq km with a target population of 4.5 million people in twenty local government areas of Niger and Kebbi states of northern Nigeria. The office promotes such improved livestock management

practices (ILMP) as intensive husbandry system, the uses of improved breeds of livestock, feeding of balanced rations, use of kinders on fodder banks, and the use of veterinary services on five commodity-based extension models. These are: Small holder cattle fattening scheme (SHCF), Dry season supplementary feeding programme (DSSFP), Work oxen, Poultry and Small holder pig fattening (SHPF).

The objectives and the modes of activities of the Kontagora NLPD under the extension models are summarised in Table I. A variety of extension methods which include Training and Visit (T&V) or demonstration and weekly radio programmes in the local languages were used in the target area to recruit and train clientele some of whom were further assisted by the NLPD to secure loans and to manage their credit accounts. Each loan applicant was assessed by the State's officers for technical suitability, credit worthiness and readiness to provide insurance scheme for his or her livestock project. The State Livestock Development Committee (SLDC) comprising the NLPD, NACB and the State's Veterinary department, determined the state lending targets and recommended beneficiaries to the NACB for funding.

Data collection and analysis

Relevant data on each beneficiary were extracted from the records of the NLPD. Visits were paid to observe on-going projects. Formal and informal interviews were held with project operators.

Table 1: The objectives and modes of implementation of the different extension models of the NLPD

Extension models	Objectives	Proposed modes of implementation	Expected contribution from clientele.
Small-holder cattle fattening	To assist small-scale producers to fatten 10 weaners for 4 months.	Education of clientele, provision of long-term loans & veterinary care.	A yard with shade near or adjacent to farmers' house.
Dry season supplementary feeding programme	To assist pastoralists and mixed farmers in overcoming dry season feed shortages.	Education of clientele, provision of long-term loans & assisting them in cultivation & management of drought resistant fodder banks or preparation and utilization of crop residue and cotton seed cake.	Fencing and land clearing of 2 hectare fodder bank.
Work oxen	To assist mixed farmers in fattening 4 bulls as work oxen for farming.	Education of clientele, provision of long term loans and & veterinary care.	Fencing and land clearing of 2 hectare fodder bank.
Poultry (Broiler & Layer)	To assist small-scale poultry producers	Education of clientele, provision of short & medium term loans for broilers and layers respectively & veterinary care	Ownership or control of a poultry house with drinkers.
Small-holder pig fattening	To assist small-scale fattening pigs for 6 months.	Education of clientele, provision of short-term loans & veterinary care.	Fattening yard big enough to hold 10 pigs.

comprising all the extension officers and agents and 122 farmers (a minimum of 25% of farmers in each model) selected through stratified random sampling method from a comprehensive list of the beneficiaries of each extension model.

Measurement of variables and data analysis

Livestock farmers that adopted the ILMP, were regarded as adopters. Based on their ages, the respondents were classified as young (< 40 years), medium (40-49 years) and old (\leq 50 years). Formal education was measured by the number of years of formal schooling. Frequency of contacts between livestock producers and extension officers or agents and listening to extension programmes from radio broadcasts by the clientele were classified as very regular, regular and occasional when these were at least once in two weeks, once in a month and once in two months, respectively. The proportion of the targets of each extension model which adopted it (adoption rate) was also calculated. The existence of relationships between adoption of ILMP and independent variables were determined through the calculation of correlation coefficient (r) using the EPIZOO computer programme (Kouba, 1995).

RESULTS

Efficiency of extension delivery and supplies of incentives to clientele

The clientele regarded the visits of extension agents (under T & V) as

manifestation of the latter's interests in their welfare and are thus very willing to cooperate. The extension officers and agents identified inadequate manpower, poor remuneration, inadequate transport facilities to cover the extensive land area of the Kontagora NLPD district among the factors militating against effective operation.

The NLPD assisted farmers involved in the SHCFS, DSSFP and Work oxen models in the purchase of replacement stock, supplies of feed, mineral supplements, seed, fertilizer as appropriate. No similar extension services were offered to those farmers who were involved in the poultry and piggery models. The latter group often travel to such long distances as Kaduna (300 km away) or Ibadan (500km away) to obtain day-old chicks and feeds. Private veterinary practitioners and quacks whose services were considered very expensive and not regularly available to attend to the farmers.

Between 1992 and 1995, the NACB disbursed 284 loans (including renewals) amounting to ₦510,925 at 15% interest rate to beneficiaries and for varying periods as considered adequate for each model by the SLIC. As much as 53.1% of the total funds were granted as loans to the pastoralists in SHCFS model. This is followed by DSSFP, Work oxen, Poultry and Piggery models (Table II). Renewal of credit facilities favoured clientele in SHCFS, DSSFP and Work oxen models while none in the poultry

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Table II: Adoption of extension models, performance of the clientele and benefits they derived.

Extension	Small holder fattening	Dry season supplementation	Work oxen	Poultry	Piggery	Total
<i>Adoption of model</i>						
Potential target	600	170	500	80	50	1,400
No. of adopters	236	45	127	13	7	428
Adoption rate	39.3	26.5	25.4	16.3	14.0	30.6
As % total	55.1	10.5	29.7	3.0	1.6	100
<i>Loan</i>						
Volume	5,500-10,000	10,000	2,500	2,000 6,000	4,000	-
Period (months)	6	48	48	48	6	-
Beneficiaries	222	34	21	6	1	284
Amount released(N)	274,800	147,000	53,125	32,000	4,000	510,925
As % of total	53.8	28.8	10.4	6.3	0.8	100
<i>Repayment</i>						
Number	5	N.A.	N.A.	5	1	-
As % of beneficiaries	2.3			83.3	100	-
<i>Renewal</i>						
Number	194	24	13	0	0	231
As % of beneficiaries	87.4	70.6	61.9	0	0	81.6

and piggery models benefited though they satisfied the stipulated requirements. There is a significant positive correlation ($r=0.6$, $P<0.05$) between adoption of extension model and the volume of credit facilities granted to clientele.

Adoption of extension models and ILPM

The SHCFS was the most popular model involving 39.3% of the beneficiaries, followed by DSSEP (26.5%), work oxen (25.4%) poultry which comprised of broiler and pullets schemes (16.3%) and piggery (14.0%). The percentages of the 428 beneficiaries for all the models that were involved in each model were 55.1% for SHCFS, 29.7% for Work oxen, 10.5%

for DSSFP, 3.0% for poultry and 1.6% for piggery (Table II). On the overall, 41.8% of the 122 clientele interviewed were older than 50 years, 44.3% were between 40 and 50 years while 13.9% were below 40 years. The clientele on the Work oxen model have the oldest age range, followed by DSSFP, Poultry, Piggery and SHCFS models in descending order. The educational status of clientele was highest for clientele in Poultry model, lower for Piggery, SHCFS, DSSFP and Work oxen in descending order (Table III). There were significant negative correlations ($r=0.6$, $P<0.05$) between adoption of ILMP and old age and also with educational status of clientele.

Table III: The ages and educational status of clientele.

Extension	Small holder fattening	Dry season supplementation	Work oxen	Poultry	Piggery	Total
<i>Ages of clientele</i>						
< 40 years old	10 (17.0)	0	4 (12.9)	8 (61.5)	6 (85.7)	28
41- 50 years old	33 (55.9)	4 (33.3)	6 (19.4)	4 (30.8)	1 (14.3)	48
> 50 years old	16 (27.1)	8 (66.7)	21 (67.7)	1 (7.7)	0	46
Total	59 (100)	12 (100)	31 (100)	13 (100)	7 (100)	122
<i>Educational status of clientele</i>						
No formal education	34 (57.6)	8 (66.7)	21 (67.7)	0	2 (28.6)	65
Primary education	17 (28.8)	4 (33.3)	10 (32.3)	6 (46.2)	5 (42.9)	40
Secondary education	8 (13.6)	0	0	5 (36.5)	2 (28.5)	15
Tertiary education	0	0	0	2 (7.7)	0	2
Total	59 (100)	12 (100)	31 (100)	13 (100)	7 (100)	122

Problems of extension delivery

The problems identified include:

- (i) There were only two extension staff to the 428 farmers involved in the five commodity-based extension models, giving a ratio of 1:214 farmers. There was no trained extension staff for Zuru, Mariga and Kagara zonal offices.
- (ii) The loan volumes were generally regarded as low, interest rates too high and disbursement schedule as inappropriate (Table IV). A minimum of N50,000 had been suggested for any of the models.
- (iii) No extension programmes relevant to the ir model piggery model was carried out by the NLPD.

DISCUSSION

The NLPD's extension objectives, packages and its planned delivery structure via well defined models appear good on paper. The NACB linkage, the

involvement of SLIC, state extension officers on-attachment, well-defined work schedules were in-built provisions to foster effective extension delivery at the grassroots level. However, logistic and implementational defects which included too wide area of coverage coupled with gross understaffing, poorly motivated staff, inadequate infra-structural and transport facilities, have limited the effectiveness of the Kontagora NLPD's livestock extension activities. The division of the Kontagora district office into three in line with the existing states structure and increased staff strength are recommended.

The relatively high popularity and acceptance which the SHCFS, DSSIP and Work oxen models enjoyed may be attributed to the strong institutional support from the NLPD, relatively more frequent contacts with extension staff, high compatibility with existing socio-cultural practices, low level of

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Table IV: Views of respondents on the level of extension delivery by the NLPD, Kontagora.

Extension	No. interviewed	Appropriate	Inappropriate	Do not know
<i>Extension presentation</i>				
Training & Visit	60	68.3	25.0	6.7
Radio programmes	60	63.3	30.0	10.0
Film shows	57	61.4	21.1	17.5
Extension leaflets	58	12.1	29.3	58.6
Agricultural shows	60	20.0	43.3	36.7
<i>Credit</i>				
Conditionalities	70	61.4	28.6	10.0
Loan volume	68	19.1	72.1	8.8
Interest rate	68	27.9	55.9	16.2
Disbursement schedule	68	35.3	44.1	20.9
<i>Input supply</i>				
Veterinary services	65	6.2	90.7	3.1
Feed supplements	64	37.5	46.9	15.6
Improved breeds	56	3.6	71.4	25.0
Seed supply (DSSM)	42	54.8	7.1	38.1

complexity and consequently the ability of the adopters to operate the models with minimum supervision. The SHCFS has been practised in the area for more than 200 years. The SHCFS was similarly very successful under the FLDP because of its similar relative advantages (Criag, 1982 and Ojutiku, 1985). A more effective extension delivery would elicit higher level of success. The intensive poultry and piggery rearing models were less popular among the clientele because they suffered from institutional neglect or even hostility in the case of piggery. There was no credible extension service, poor capital support and non-availability of most inputs which probably discouraged potential poultry and piggery adopters. The emphasis on cattle

production models (SHCFS, DSSFP) while short-term enterprises (poultry and piggery) were ignored is considered a misplaced emphasis. While the socio-economic levels of cattle fatteners were significantly improved through such models, Nigeria's chronic animal protein deficits can only be corrected by the development of stable short-term livestock enterprises such as poultry. (Adenc, 1976; Rincan, 1987).

In conclusion, it is obvious that a high number of indicators of progress towards attaining SLDP objectives were recorded by the five extension models examined under the Kontagora NLPD office. A higher level of success could have been achieved if efforts were made to monitor the scheme periodically and to promptly

tackle the delivery defects. Efforts should be made to shift emphasis towards the production of short-term livestock production enterprises in the TLDP.

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