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## Review article

### Improving livestock production through co-operative societies

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#### ABSTRACT

This paper reviews the positive role livestock Co-operatives can play in enhancing animal production. Livestock Co-operative Societies such as those for Artificial insemination, Dairy, Beef and Poultry production have been discussed. The paper also dwells on the benefits derivable from such organisations. The practice of Co-operative Societies in livestock production has been applied by different countries in different livestock sub-sectors. This paper concludes that establishing such Co-operatives will significantly improve livestock production in Nigeria.

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#### 1. Introduction

The World's human population is currently about 5.8 billion people and the figure grows by more than 80 million people each year. More than 90 percent of the world's population growth is occurring in developing countries, like Nigeria. The capacity of farmers to feed the world's future population is in jeopardy, Engelman, 1997). Hence the need for investigation into novel means of enhancing food production. Adequate nutrition is a basic human need and a pre-requisite for health, Mason *et al.*, 1984).

Food cannot be considered adequate if it is not balanced, containing the entire various nutritional component; vis. the carbohydrate, fat protein, minerals and vitamins. The World Health Organisation (WHO) recommended a minimum of 70gms of protein per caput per day, of which 28 grams must be of animal origin,

FMANR, 1974). Our livestock populations are our reservoirs of protein food. These reservoirs will need to be enhanced, if we are to achieve equilibrium between protein supply and population growth. Nigeria is abundantly blessed with livestock resources of considerable diversity with an estimated population of about 13 million sheep, 25 million goats and 13 million cattle, 240 million chickens, 18,000 cartels, 700,000 donkeys (Kela, 1931). Nigeria has the potential to produce as much livestock products as countries with huge agricultural export like Britain, New Zealand and the Netherlands.

The Nigerian economy has been going through some difficult periods in the last, two decades. Food shortage has reached a crisis stage and has remained so since (Ihimodu, 1989). Food and particularly protein supply in Nigeria has remained inadequate in spite of various Governmental efforts. This may not be unconnected with the main type of agricultural production system which is largely small, subsistent and ineffective. An alternative approach to this problem is now suggested i.e. the adoption of the Co-operative approach.

When applied to livestock production systems, it is envisaged that this will organise small livestock producers into large groups which will make them more effective, have greater influence and stronger bargaining power.

## **2. Co-operative organizations**

A Co-operative Society is an association of persons who have voluntarily grouped together to achieve a common end through the formation of a democratically controlled organisation, making equitable contributions to the capital required and accepting a fair share of the risks and benefits of the undertaking in which members actively participate (Arua, 1980). Ihimodu (1989) identified some elements that determine the structure of a co-operative organisation i.e. the group of persons has at least one economic interest in common. There is the self help motivation, which implies the aim of the group and each individual member is to meet the common need by a joint action. The mechanism to achieve the group objective is to establish a common enterprise. The main objective of the group is to perform services for the promotion of the economic situation of the members of the group. And lastly the members do business from the motive of services rather than profit (Ihimodu, 1933b).

## **3. Objectives of co-operative societies**

Among the common objectives of Co-operative Societies are the procurement and provision of goods and services at cost; that is, the objective is not necessarily to make profit. However, goods and services can not be provided at a loss if the Co-operative Society is to stay alive. Co-operative Societies could circumvent the problem of unnecessary profiteering by Middlemen in trade and Commerce, by directly engaging in distribution and marketing. Co-operative Societies aspire to prevent exploitation of the weaker vulnerable members of the society, it also protect the right of members as producers and as consumers. There is also the promotion of mutual understanding and education among members and in the long run among the people in general, Igben *et al.*, 1986).

## **4. Financing of co-operative societies**

Co-operative societies, like any organisation have a need for funds for their various activities. These funds could be raised in several ways. Funds could come from members or from outside sources. Members could pay registration fees, dues or buy shares. Also funds could be acquired from Government in the form of loans and grants or it may be loans from commercial banks (Adegeye, 1978).

## **5. Principles of co-operative societies**

The principles of Co-operatives were laid down by the founding fathers of modern co-operative societies. These principles are the guidelines the men laid down for managing their co-operative societies. Most of these guidelines are now incorporated into modern co-operative societies. They include:

- a) Open membership i.e. any one who can benefit from the membership and who indicates interest should be accepted. This is to ensure that everybody irrespective of status in society is eligible for membership.
- b) Co-operative societies are democratically controlled on the basis of "one member one vote" irrespective of the number of shares held by a member.

- c) c.) Co-operatives have limited returns on capital, they are expected to provide services to their members at the least cost and they are not expected to generate large returns from the capital. The major benefits should therefore not be seen as resulting from returns to capital but services to members.
- d) Surplus earnings are shared according to the services rendered to the societies or according to how much they patronise the societies. This principle has been slightly modified to include sharing according to share contributions.
- e) In order to ensure, that the Society is democratic and self reliant, all the members are expected to keep politics and religion out of the organisation. That is, politics and religion should neither be discussed in the meetings nor should they be allowed to influence discussions on co-operative matters.
- f) Cash trading - members of the societies are expected to buy or sell produce strictly on cash basis. This eliminates dealing in credit and the attendant problems of such transactions.
- g) Goods are handled at market price: Co-operative goods are traded at market prices. That is, commodities are sold at the prevailing prices at the time the transaction is made. This eliminates the problems that may arise if goods are sold at prices that may prevail later.
- h) Co-operative societies are enjoined to provide for the education of members. These include extension services. A Co-operative society is a continuous source of education for its members (Ijere, 1977)

## 6. Discussion

### 6.1. Co-operative societies in livestock production

Co-operative Societies are organisations consisting of individuals with common interest. These interest groups are formed to ease particular activities to protect and promote these activities. Co-operative societies can also act as lobby groups in their effort to achieve their goals and objectives. Such Co-operative groupings can be applied to almost every- human interest and endeavour. Our main concern in this instance is with the use of co-operative societies to boost livestock production.

In the United States and the United Kingdom, almost every animal breed has an association dedicated to its multiplication, propagation and protection. Dairy farmers in the United Kingdom have such a Union, pigs farmers and especially thorough bred horse breeders of different breeds also have groups so dedicated (Evans *et al.*, 1997 and Briggs and Briggs, 1980).

A typical Co-operative Society may include the highly motivated farmers, the extension workers, technical staff like the animal scientist or the Veterinarian and possibly a Local government Authority representative. Because of the varied nature and interest of Co-operative societies, we will discuss a few types of the advocated Co-operative Societies. These areas include Artificial Insemination (AI), Dairy production, Poultry production etc. All these are important sub-sectors of the livestock Industry. And Co-operatives could be evolved to serve and promote interest and activities in any of these areas.

### 6.2. Problems of co-operative societies

Presently there is a very low level of awareness among peasant farmers in the country who make up the bulk of the livestock producing force. There is also the difficulty in obtaining genuinely motivated farmers who will pioneer, mobilise and fund such organisations (Igben *et al.*, 1986). With the present state of moral decadence in the society there could be difficulty in obtaining dedicated, selfless, just and honest membership and leadership.

Funding is another major problem Co-operative societies do encounter. But a number of policies have been formulated by Government in its effort towards improving Agricultural production, a number of Agricultural financing programmes have been adopted such as, the classification of Agriculture as a "preferred sector" by the central bank of Nigeria.

This is a directive to Commercial and Merchant banks to confer high priority on Agriculture as far as the loans to be committed are concerned. Secondly an Agricultural Credit Guarantee Scheme Fund (ACGSF) was established as far back as 1977, which was aimed at making Commercial and Merchant banks grant loans more readily to farmers by providing guarantee for such loans. The Nigerian Agricultural and Co-operative Bank (NACB) was established in 1973 to grant loans for Agricultural activities including direct crop production, livestock and marketing to Agricultural crops, Ihimodu, 1989).

Much recently Government is persuading people to form Agro-allied Co-operatives as a condition for benefiting from loans to be disbursed by the Family economic advancement programme (FEAP).

Co-operative Societies if earnestly formed and maintained, could be applied to enhance specific livestock activities such as Artificial Insemination, dairy production poultry production etc. All these are important sub-sectors of the livestock Industry. And each of these areas is options that Co-operative Societies could take up in the effort to improve livestock production.

### **6.3. Artificial insemination service co-operatives**

Artificial Insemination is one of the most important techniques devised for the improvement of genetic and reproductive efficiency in animals (Foote, 1975) It could be defined as the deposition of spermatozoa in the female reproductive tract mechanically rather than by natural mating (Hafez, 1974). The semen is also collected artificially; the application of the Artificial Insemination (AI) could not be described as anything but a revolution. By natural service a bull can be bred to an average 50-60 cow per year, on the other hand the New York Artificial Breeders Co-operative Society has sired 10,000 in a year by one bull. It would have taken about 200 years to accomplish this by natural service (Banerjee 1982).

The above mentioned advantage is only one of several.

Among others using A.I. we can control disease spread, improve and up-grade our local breeds using highly improved pedigree bulls, we can employ A.I. to modernise our livestock breeding systems, and also eliminate the problem of having to keep bulls on the farm unless we want to. We said when we are utilising A.I. we are modernising our livestock production system. As such we need to acquire some essential equipment necessary for the effective provision of artificial insemination services, e.g. A mini A.I. Laboratory building. A Nitrogen tank for the storage of semen, Inseminating guns, a microscope, Glass slides, Reagent, for semen analysis, etc. members of an Artificial insemination Co-operative Societies could pool resources and purchase these equipments which cannot be easily purchased by any single farmer. The A.I. Co-operative can also act as dealers or distributors for AI and related husbandry equipments and also make these equipments accessible to poor farmers if the society could set aside some on loan services. The AI Co-operative Societies are a forum for education and enlightenment of members, through workshops, or seminars by livestock, extension on Veterinary officers.

An A.I Co-operative service will make use of improved highly tested pedigree bulls or their semen, this, will mean the dispersal of superior genetic traits amongst our local animal population. There will be improved birth weight, early attainment of puberty as seen in breeds like the Frisians, Breeds such as the Friesians are dairy breeds whose milking ability have been greatly accentuated. This will help in improving milk production among our local breeds with from 100% to 1000%. The carcass weight of animals destined for slaughter will also be greatly enhanced using quality semen to Inseminate animals belonging to members of the Co-operative. This will also increase the availability of quality meat for the consumer. There is also the early attainment of optimum carcass weight.

The application of Artificial Insemination on animals belonging to members of a Co-operative Society will also help in curtailing the spread of a number of venereal diseases acquired through natural service of copulation. Curtailing of venereal diseases will mean a giant stride in our continuing battle against animal diseases.

### **6.4. Poultry co-operative**

Poultry Co-operatives can also be very beneficial.

The poultry industry in the northern part of Nigeria and especially in States like Sokoto, Kebbi and Zamfara is almost non existent. The cost of poultry feed, the absence of hatcheries that will supply day olds are among the problems militating against the off take of a viable poultry industry in this part of the country. It is envisaged that the formation of poultry Co-operative Societies will facilitate and enhance Indigenous protein supply from the poultry subsector. It will also be easier to overcome problems of poultry production arising from poor poultry feed availability poor supply of poultry husbandry equipments and or vaccines.

Poultry farmers need, healthy day old chicks, vaccines, poultry feed, Veterinary Services, and markets for their products. They also need training in the management of intensively kept birds. This is where poultry Co-operative Societies comes to mind. The coming together of individuals as an interest group will empower them to strive and solve common problems like the above mentioned. This will be much more difficult for individuals. If the average poultry farmer can overcome some of these problems, there will definitely be improvement in his poultry activities.

### 6.5. Dairy co-operative societies

Specialised dairy farming is almost non-existent in this country. In the North Western part of Nigeria the only activity related to dairy is done by the cattle Fulani's who rear cattle and depend to a large extent on sour milk and Butter 'fat sales for subsistence. Farmers should be encouraged to venture into dairy farming through the use of modern dairy practices, and acquisition of improved dairy breeds of cattle and goats, Promising local breeds like the white Fulani (Bunaji), The Sokoto gudali and the Sokoto red goat can be cross bred with exotic breeds of cattle and goats to obtain adaptable and highly productive animals. These can be used as foundation stock for the off-take of a dairy industry. The Co-operative will purchase dairy equipments, dairy animals, establish dairy farms, with support staff. The Co-operative can also establish a market and a marketing system for their products. The marketing system can be specially designed to cater for milk and milk products distribution and sales. If the dairy Co-operative society can put in place these structures, there will be a resultant modernisation and improvement of the local dairy establishment. There will be the use of exotic, improved cross breed or highly promising indigenous stock, there could be the use of modern dairy equipments, and there will also be the re-organisation of the marketing system to enhance milk and milk product sales.

This will bring about positive economic change for all involved. If on the other hand the Co-operative society can not establish a modern dairy farm. Individual members maintaining their local production method can come together and form a comprehensive milk marketing system, which will take care of the sale of milk products from individual members through a central pooling system for eventual marketing. Just as is obtained in India.

### 7. Conclusion

Formation of various Co-operative Societies has resulted in a much greater measure of success, since the formation of the first Co-operative at Rochdale last century around 1844., Hanson, 1976). That is why the principle and practice of Co-operative societies is applied variously in almost all kind of enterprises. The wisdom in formation of Co-operative movements lies behind the truism "United we stand divided we fall". That is why it is believed that when livestock farmers come together be they; poultry farmers; Dairy farmers, fish farmers, Rabbit farmers, Beef farmers they will form a formidable front that will facilitate their activities as a group much more than when they are operating as individuals. Such associations could ease their activity, which is why it is strongly believed by these authors that Co-operative organisations can help improve livestock production among livestock farmers.

Success can be achieved in livestock production through the application of the principles and practice of Co-operatives only if some of the possible limitations of Co-operative Societies are taken into consideration. These are among others

- a) A lack of awareness from farmers; this could be a drawback because peasant farmers may not know the possible benefits of setting up of a co-operative society.
- b) There could be a difficulty in obtaining genuinely motivated farmers who will pioneer, mobilise and fund such organisations in their infant stage.
- c) With the present state of moral decadence in the society, there could be difficulty in obtaining a dedicated, selfless just and honest membership and leadership (Ihimodu, 1989).
- d) Business experience amongst many members is often lacking, Hanson, 1976).
- e) There could also be difficulty of preventing or eliminating biases, in the form of religious, political or other differences which could hamper a sense of belonging and promotes favouritisms ultimately generating bad feeling and disunity among members.

The authors will like to recommend the adoption of Co-operative farmers' societies among small scale and large scale farmers as a strategy of improving livestock production in Nigeria. We would also like to charge all relevant government parastatals to set up an effective extension system or a committee to stimulate and sustain interest among farmers to ensure that they become actively involved in such Co-operatives and also these parastatals should as a deliberate policy give them all necessary support.

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