

The Smallholder Livestock Development Project, Bangladesh

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Abstract

This paper describes the Bangladesh Smallholder Livestock Development Project which was started after 10 years of preparation from 1993–1996, in cooperation with the Government of Bangladesh and some non-government organisations. The model is based on semi-scavenging poultry flocks and is defined as a system with poultry flocks under partly controlled management and where the scavenged food accounts for a significant part of the total food consumption. It is an integrated system which provides supplies, services and production components in order to establish and maintain a semi-scavenging poultry sector.

THE Bangladesh Smallholder Livestock Development Project was initiated after 10 years of preparation in 1993–1996 in cooperation with the Government of Bangladesh and some non-government organisations (NGOs), the most influential being the Bangladesh Rural Advancement Committee (BRAC).

Most women of rural, landless households in Bangladesh live in extreme poverty and therefore the model is targeted solely at these landless women.

The initial model was sponsored jointly by the Danish International Development Agency (DANIDA) and the International Fund for Agricultural Development (IFAD). The following phase was sponsored jointly by DANIDA and the Asian Development Bank (ADB), and finally sponsored by DANIDA alone in the late 1990s, when it became a nationwide operational model.

Initially the target group consisted of 270 000 landless women and the aim was to encourage these very poor women to become involved in poultry income-generating activities.

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The integrated semi-scavenging production model in Bangladesh is three-pronged, consisting of production, supply, and services:

Production Line

Breeders (model rearers)

Small low-cost parent farms are established with 25 parent hens and cocks per unit. The birds are fed balanced feed and kept in confined spaces. Breeds typically consist of White Leghorn, Rhode Island Red and Fayoumi. Males and females are of different breeds.

Mini-hatcheries

Small low-cost hatcheries are operated with nearly 100% solar energy. Black pillows filled with rice husks are heated in the sun, and the eggs are placed in a cylinder (such as an empty oil drum or similar) between two pillows for hatching. Each hatchery has a capacity to hatch 1000 day-old chicks per month.

Chicken rearers

Small rearing farms are established with a capacity of 200–300 chickens. The birds are reared in a low-cost house from 1 day-old to 8 weeks of age. The

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chickens are fed a balanced diet of feed supplied by the local feed seller.

Smallholders (key rearers)

These are small farms with only 10 hens, mainly improved breeds that are supplied by the chicken rearers and a few local (Desi) hens. The birds are kept under semi-scavenging conditions, with a supplementary feed supply of 30–70% of the full ratio. The remaining feed is obtained through scavenging.

Supply Line

Parent stock

The parent stock is supplied by the Directorate of Livestock Services at the market price for day-old chickens. Breeds are Fayoumi, White Leghorn and Rhode Island Red.

Feed

A number of small feed sellers located in the villages, purchase local by-products from the milling industry and mix it with fishmeal, vitamins and minerals. The feed sellers sell approximately 1 ton of feed per month.

Vaccine/medicine

A number of poultry workers are trained to vaccinate the birds. The vaccine is supplied free of charge by the Government, but the poultry worker charges a vaccination fee.

Marketing

The eggs are collected by egg collectors and marketed in the nearby towns and urban areas. Alternatively, the smallholder sells her eggs and chickens in the village.

Service Line

Group formation

The involved NGOs form small village groups with some 30 members. The groups hold weekly meetings to discuss relevant subjects and new members are selected from the groups.

Training

Before a poultry holder is established, she goes through a 3-day training program which is followed later by refresher courses.

Credit

Depending on the activities each member is provided with a small loan ranging from US\$25 to US\$200. The re-payment period is 1 year.

Extension

Extension services are provided as a cooperative effort between the Government and the involved NGOs.

The organisation of the model is well developed and is functioning well, but there is still a big gap with regards certain technical aspects. The scientific resource base for semi-scavenging poultry holdings is rather weak, and therefore a professional Poultry Network was established at the Royal Agriculture and Veterinary University, Copenhagen (Danida funded), in 1997.

Smallholder Structure

Smallholders constitute 95% of the units in the model, and the units are rather complex, as they comprise several activities, such as production of eggs, pullets, spent hens, and cockerels. The flow of activities also includes management, feeding, and marketing. This complexity of activities makes it possible for the individual smallholder to adapt her operation to the prevailing market conditions and demands.

Transfer of Technology

The structure of the model in many ways mirrors an entire poultry sector, with parent stock, hatchery, rearers, broilers and egg producers. The infrastructure is further supported by the supply and service functions as integral parts of the model. The concept of the model is that approximately 10% of the population in the project area are directly involved in any of the activities, either as producers or in the supply and service activities.

The cornerstone in the semi-scavenging system is that scavenged feed constitutes a substantial part of the total feed consumption. As such there are two pre-requisites to the system:

- scavenged feed must be available in sufficient amounts; and
- birds must have safe access to scavenge the available feed.

Conclusions

The Poultry Model developed in Bangladesh is the most structured and the most carefully designed smallholder poultry program in any developing

country. Chicken mortality has been reduced to an acceptable level, and the resource consumption, mainly feed, even seems to be competitive with the intensive poultry production

Impact surveys show that 20%–30% of households have moved above the poverty line within the first year of implementation, and due to increased earnings women have been able to buy more food, send children to school and increase physical assets, including purchase of land. The women's participation in decision-making in the household has increased.

Very few projects have recorded the same level of impact. Employing this particular model has so far been confined to Bangladesh, but it is concluded that the results achieved clearly indicate that the model

could be applied in other countries. There is no doubt that the model is viable and sustainable, but there is, however, a great potential for technical improvements and adaptation to conditions in other developing countries.

Further Reading

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