

Making poultry great again!

One typical African phenomenon is an aging farmer's population. But not in Nigeria, where Young Chicken Farmers' Clubs are being set up to revitalise the interest of young people in poultry keeping.

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For a long time, agriculture was the backbone of Nigeria's economy. Around 1958, the discovery of crude oil brought about the gradual decrease of agricultural entrepreneurship. Consequently, the oil business became a new bride to the Nigerian populace, including the youth. Nowadays, crude oil accounts for about 95 per cent of Nigeria's foreign exchange receipts. But recently, because the price of crude oil has been falling steadily on the international market, there has been an economic meltdown. Hence the reality of a possible crippling budget shortfall is evident. The cries from the past and present government administration for economy diversification in order to relieve the oil sector from its overbearing role cannot be overemphasised.

The current traditional farming system

Nigeria's traditional livestock farming is characterised by an aging population of farmers that do not have enough agricultural inputs and

revenues to support their farming livelihood. Moreover, little output, a lacking marketing system, and poor linkage and supporting systems have brought about low returns on investment for rural farm families. The traditional farming population has shrunk because of the menace of rural-urban migration coupled with the fact that older farmers are dying in great numbers. This phenomenon has created a vacuum in the national effort to increase agricultural productivity over the years. Hence, the need to transform the traditional agricultural sector has become imperative. Recent intervention programmes of the Federal Government of Nigeria, such as the Agricultural Transformation Agenda and the Agriculture Promotion Policy, are designed to incentivise small-scale farming and shall encourage especially the youth to return to agriculture. The concepts are based on value addition to local agricultural produce as well as rural infrastructure and agribusiness development. Special emphasise should be given to agricultural entrepreneurship development.

However, the interventions have not yet delivered on their mandate. Studies have shown that the majority of agrarian populations are not finding farming attractive due to low returns on investment. In order to tackle food security and to contribute to national income generation, farming practices have to be rejuvenated from the base. Consequently, domestic food and nutrition security will be improved and a sustainable income and job growth supported.

Creating the Young Chicken Farmers' Club

Against this background and the challenges of traditional livestock farming, the Nigerian NGO Bdelium Consult Ltd. (BCL) developed a sustainable traditional livestock business model by facilitating the setting-up of the "Young Chicken Farmers' Clubs" (YCFC) to rekindle interest in the smallholder poultry system as well as raising a new generation of



chicken farmers who see poultry as a business. Financed by the Global Alliance for Veterinary Medicines (GALVmed) and implemented by BCL from July to October 2017, the YCFC is a subproject of the overall “Smallholders Poultry Business Development Project” also run by BCL.

The beneficiaries of the programme were pupils between nine and twelve years, taking part with their parents’ consent. They were at the centre of the YCFC and were trained to rear chicken and thus revitalise poultry production, albeit at small-scale level. In addition, the number of chickens within the project area was sought to increase, and the engagement and interest of the farmers in vaccination and deworming practices was to be improved.

After training sessions conducted by BCL, each of the pupils was given 15 day-old cockerels (DOCs). Since the extension service in the region is constantly understaffed, Community Poultry Agents (CPAs) were appointed in the communities to support the pupils throughout the process. The selection criteria for the CPAs were having a certain standing to adequately communicate with the community and being literate. Since the CPAs will gain access to vaccines, BCL trained them in vaccinating the chicks. Additionally, CPAs act as aggregators and form the base of the support system – they visit the young farmers every few days to observe the chicks’ development and educate these pupils on brooding systems, feeding as well as preventive healthcare and sanitary measures. The CPAs also arrange access to the market to sell the chicken.

Setting up the club step by step

A multi-stage sampling procedure was used to select the locations and a total of 240 participants. Ogun, Osun and Oyo states in south-west Nigeria were chosen, based on the proximity of their communities. This facilitated the project logistics and exchange between the different stakeholders. The second stage involved the purposive selection of two communities of each state that were prominent in the business of the overall Smallholders Poultry Business Development Project. The third stage was the systemic selection of two primary schools from each community. In consultation with the school’s management board and the parent teacher association facilitated by the CPAs, the schools were selected. In the fourth stage, three best female and male pupils respectively in agricultural science from class four to six were chosen, making 18 pupils in each of

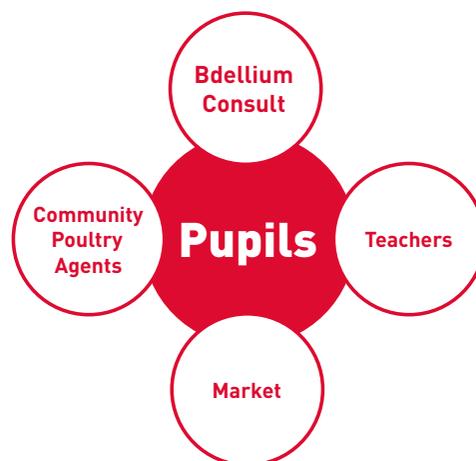
Climate and agriculture in Ogun, Osun and Oyo states

The YCFC programme was carried out in Ogun, Osun and Oyo states in south-western Nigeria. In all three states, the climate is humid and tropical with an average temperature of between 24°C and 25°C. Rainfall patterns vary from an average of 120 cm per year in the southern part to an average range of 80 cm to 150 cm in the northern part. There are two distinct agro-ecological zones – humid forest and derived savannah. The major crops cultivated there are yam, cassava, maize, rice, vegetables and cash crops such as rubber, cocoa, kolanuts and citrus. Rural households in the intervention area rear sheep, goats, village chickens and pigs. Village chickens are genetically diverse and not highly bred, and are thus robust, with a stable immune system. They are mostly reared for the higher quality lean meat. In turn, the nutrition of the rural communities is improved by a higher protein intake. Moreover, every household has two to three village chickens which are fed organically. These chickens are also seen as part of the community. In addition, intensive rearing of cockerel, layers and broilers has become popular.

twelve schools. An agricultural science teacher and one CPA were attached to each school to provide required support on how to run a sustainable business.

inputs required in rearing the chicks to market weight were supplied to the pupils. And the teachers provided the technical know-how of poultry farming and preventive sanitary measures to sustainably strengthening the chicks’ immune system. These principal stakeholders were interlinked to ensure that chicken are delivered to the market at the right weight, price and time.

YCFC Operational Actors



The operation shown in the Figure above indicates training sessions for the pupils along with CPAs and teachers providing both the psychological and social support for primary inputs, for example the handing out of the DOCs. In order to take care of the chicken during the meat production phase, the parents of the pupils were involved in the training to serve as a guide and source of supplementary funding for the sustainability of the innovation. The operation was cyclical; it ran from BCL to the market interchangeably. Every actor had a role to perform in ensuring the operations and achieving its set objectives. BCL’s role was to provide inputs and organise the training for the CPAs and other technical support that ensured the chain was not cut at any point. On the one hand, the CPAs and teachers assisted the pupils, where the CPAs saw to it that all the

Tri-partite training for young farmers

The training of the pupils followed specific targets. The number of chicken surviving per flock per household after eight weeks compared to the number of natural brooding systems should increase. To reduce the high rate of chicks’ mortality depending on predators, thefts and adverse weather conditions that favour diseases, the pupils were trained by BCL supported by CPAs, and the teachers in artificial brooding systems. The brooding standards were developed accordingly. These comprised the use of cardboard brooders, taking a small container as a coal pot to supply heat for the chicks, and bottled water containers as improvised feeders and drinkers. Practices of vaccination against Newcastle disease (see Box next page) using an intra-ocular medium (a drop in the eye) and Gumboro vaccines applied by trained CPAs, mixing glucose in drinking water to enhance the energy ratio in the chicken’s nutrition, as well as the application of ethno-veterinary medication (e.g. mixing ginger and garlic paste in the chicks’ drinking water) were introduced to improve the immunity of chicks against bacteria and protozoans.

Lessons learnt and what next?

Working with locals such as agricultural science teachers and CPAs who understand the



Selected pupils receiving 15 day-old cockerels in school.



Training for pupils on poultry farming and disease prevention and control.

Photos: Bdelium Consult Limited

terrain of the communities has promoted a harmonic relationship aiming towards achieving grassroots agricultural development in the communities. Interaction among the stakeholders has given a reasonable level of success in which all the stakeholders, including the parents, have acquired knowledge of artificial brooding using locally available materials to raise chicks from DOCs to post-brooder age. By and large, agricultural development efforts should follow bottom-up approaches in order to achieve the desired impact.

Looking at the achievements and results of this pilot programme, there are three recommendations when scaling up the approach to a higher level.

First, the YCFC approach should be integrated into the primary education system, which was selected to catch the young entrepreneur from the beginning of their learning career and imbibe the culture of animal husbandry into the children. This culture might stimulate their interest in agricultural ventures. During the YCFC training, we observed that households were interested in the business of small-scale chicken production using simple, available and affordable production systems but were challenged with incidences of diseases, theft and a high rate of chick mortality. Second, village chicken farmers should be sensitised on the use of simple artificial brooding systems for their chicks' productivity. In order to sell post-brooder chicks for growing to other households, a sustainable marketing platform has been established. Furthermore, market opportunities for sales of feeds and medication in smaller units to farmers or households has been created. And third, the use of ethno-veterinary products should be promoted among smallholder farmers to strengthen the chicks' immune system.

The brooding period lasts for eight weeks. After this period, about 33 per cent of the young farmers raised between 11 and 13 post-brooder chicks from the 15 DOCs in their flocks. Between 300–350 Naira (0.75–0.85 euros) was offered for the post-brooder chicks at local markets.

Thanks to the interaction of BCL consultants, CPAs, teachers and pupils in setting up a network and support system, the households benefited in terms of alternative income to their basic expenditure and enriched their meals with protein.

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A Community Poultry Agent vaccinating a chick against ND by putting a drop in its eye.

Newcastle disease

Newcastle disease (ND) is a highly contagious and often severe disease found world-wide that affects birds, including domestic poultry. It is caused by a virus in the family of paramyxoviruses. It usually presents itself as a respiratory disease, but depression, nervous manifestations, or diarrhoea may be the predominant clinical form. ND is transmitted most often by direct contact with diseased or carrier birds. Infected birds may shed the virus in their faeces, contaminating the environment. Transmission can then occur by direct contact with faeces and respiratory discharges or by contaminated food, water, equipment and human clothing. The disease is very contagious. When the virus is introduced into a susceptible flock, virtually all the birds will be infected within two to six days.

Source: World Organisation for Animal Health (OIE), 2019.