

Poultry production in Zambia: Current Status and Future prospects

By

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1.0 INTRODUCTION

It has been observed time and again that in underdeveloped world, people suffer more from under-nutrition or malnutrition of protein than of carbohydrate. Kwashiorkor is a serious problem of protein deficiency in malnourished children who as a result are stunted in growth, shows lower immunity to fight disease and is highly prone to parasitic worms' infection. In Zambia we had been living 'in a mono-metal (copper) mono-grain (maize) economy' so long. Lately we have also begun to show some recognition for other crops and metals as well to advance Zambian economy to a higher level. Time has come for us to look more seriously to make available for our people the much needed protein. The major animal proteins such as eggs and poultry meat which are comparatively affordable have to be part of essential dietary requirements of all our people.

Therefore, national and regional demand for poultry products is increasing significantly and there are strong opportunities for growth in the sector and for poultry production to provide a pathway out of poverty for hundreds of thousands of Zambian smallholders.

Yet at the same time, poultry farmers at the lower end of the market have limited access to productivity enhancing inputs and services and, critically, the technical services back up is essential and required to maximize production and income from poultry farming systems.

It is common knowledge that most of the initiatives in poultry sector in Zambia have been taken by private sector in the last two decades.

1.1 Poultry rearing in Zambia: Major merits

Some of the merits of taking poultry rearing in Zambia are discussed below:

- Poultry rearing requires low investment, and is highly profitable enterprise.
- Zambia's agro-climatic conditions are best suited for poultry farming. Even in the face of a drought where agricultural crops fail due to lack of water, chicken growing is still a practically viable activity and a winner that help bring home much needed proteins and income.
- The shortest production cycles in poultry farming make it more dynamic and quick income generating agro business. Broilers get ready for sale within 6 weeks while layers are perennial income generators, giving eggs throughout the year.
- As mentioned earlier, poultry meat and eggs are two of the cheapest but most nutritious animal proteins available to us.
- Zambia still possesses a large area of unutilized land within urban and peri-urban areas. Poultry rearing can well be adapted here as the most viable and appropriate way to utilize this land.
- Many people who stay in towns and townships keep poultry at their backyards to help supplement their income and improve their nutrition.

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- Poultry Association of Zambia (PAZ) finds ways to impart technical information of how to keep the birds without creating any unpleasant smell or noise in the neighbourhood. In this regard, PAZ is more than willing to work with the Government machinery or council authorities.
- The required labour for rearing chicken is readily available; it does not require any highly technical knowledge.
- Even as self-help project, poultry rearing can create self-employment opportunities for school leavers, retirees, and also for the people who intend to settle down in rural areas. The retired miners and other professionals including teachers can find chicken growing as most rewarding enterprise.

The fact is that a good number of Zambian households are managed by women especially in rural areas. They have also taken the brunt of taking care of their homes almost single handedly as HIV/AIDS pandemic has devastated many families in Zambia. Chicken rearing is the easiest, less manual, (and less masculine) vocation most suited for women folks.

Chicken remains an affordable protein source relative to other meat-protein sources in Zambia hence the thriving local market for the poultry meat.

2.0 PROFILE OF ZAMBIA'S POULTRY SECTOR

A growth of well above 100 percent in the production of broilers, eggs and feeds achieved during the last one decade speaks volumes of how the industry has taken on its strides the progress it has made in all departments, hatchery, breeder, layer and broiler rearing, feeds and veterinary technical support services. It has been one of the most vibrant decades of poultry industry that made good of the opportunities presented before it most efficiently and enduringly.

It has also brought a healthy competitive spirit among breeders, broiler and layer farmers, broiler and pullet out-growers and feed producers in whatever they excel in, be quality, efficiency or volumes. One another major factor to be emphasized here which has stimulated this phenomenal growth is the import ban on poultry products introduced by the veterinary department since 1994.

Other reasons for the current exponential growth (and still growing) of poultry sector are:

- There is an increase in the in- take of eggs, poultry and pork.
- Recent entry of more supermarket outlets.
- Low prices for the poultry products relative to other livestock products.
- Higher consumption of products with added value, such as cut-up parts, deboned breast and cold poultry meats.
- Increased availability of the inputs such as chicks, drugs and vaccines.
- Improved access to veterinary services by farmers through private diagnostic and disease testing facilities like VETLAB and Farm Care Division of Hybrid Poultry Farm. This has very well complimented the efforts of the Government.

Despite phenomenal growth the industry has achieved in the recent past, the fact remains that Zambia's per capita consumption of chicken meat and eggs is still one of the lowest in the world! This very disturbing fact unfolds itself a great challenge to the industry in making eggs and chicken meat affordably available. First and foremost consideration to attain a reasonable per capita consumption of poultry products for our people is to embark on everything possible to reduce the cost of producing them. And this is possible only if the cost of production and finance comes down. Apart from this, our poultry production systems should become more efficient and cost effective, even though the industry seems to be moving rather slowly in the right direction. We need to replace old outdated production

systems and equipment with more cost effective and technologically acceptable ones with the single aim of increasing productivity and efficiency. We also need to concentrate in employing stringent measures to prevent and control diseases and strengthen bio-security of the whole poultry production process.

2.1 Geographical distribution

Lusaka (50%), Copper belt (25%), Southern (15%) and Eastern (5%) provinces have higher concentrations of poultry. Rest of the provinces has in total about 5 percent of both layers and broilers. These per cent ages are estimates. Though, chicken rearing is taken by farmers especially in peri-urban areas in all provinces of Zambia due to the convenience in accessing inputs and in transporting chicken and eggs to consumers.

2.2 Production

The growth in sector is evidenced by the increase in national capacity of eggs set to 1.7 million per week which could make Zambia the second largest poultry production system in the SADC region after South Africa. This expanded capacity is a result of efforts being applied by the Breeding subsector to meet the ever increasing demand for day old chicks. Currently the country has mainly six active hatcheries which include:

- Hybrid Poultry Farm (Z) Ltd
- Ross breeder Zambia
- Bokomo Zambia (Premier Foods)
- Progressive Poultry (Tiger Chicks)
- Zambian Poultry Breeders
- Panda Hatchery.

Among these hatcheries, Hybrid Poultry farm (Z) produces Cobb 500 broiler chicks and ISA brown pullet chicks. Bokomo Zambia markets Cobb Avian broiler chicks and Lohmann pullet chicks. Ross breeders have Ross broiler chicks and Tiger chicks have Indian River broiler chicks. These four hatcheries produce the bulk of day old chicks in Zambia.

The estimated total hatching capacity currently available is about 2.8 million Eggs per week. Currently some hatching eggs for both egg production and broiler production are exported to countries such as Tanzania and Kenya. The hatching capacity is expected to increase since the major hatcheries will be putting up more machines this year and in the years to come.

There are a number of farms who grow pullets to point of lay and sell to layer farmers. In a year about 400,000 point of lay pullets are sold here. Among them the major one is Yielding Tree Pullet growers.

They do complete the vaccination programme, debeaking etc so that the layer farmers who buy them need not do them.

Poultry production, broiler and layers, in fact, has recorded a substantial growth, about 20 % per annum every year in the last 7 years except in 2008/9 period when the cost of inputs such as maize and soy beans has pulled the growth backwards It is estimated that about 10 per cent of production on an average goes to D. R. Congo. However, egg production stands at about 2.15 million eggs per day or 64 million eggs per month.

After considering the number of eggs going to D R Congo, per capita consumption stands presently at about 50 eggs per annum.

This is based on commercially produced eggs and it needs to be noted that the eggs from indigenous birds is not estimated and included here.

Per capita consumption of chicken however, is about 5.5Kg per annum, about 4 chicken, way below most of the developing countries. It is quite obvious that animal protein consumption in Zambia is one of the lowest among developing countries.

2.2.1 The small-scale-medium and large scale commercial production

The broiler industry has continued to be dominated by small scale producers. The sector consists of commercial farmers (25 percent of broiler chicks grown), and medium, small-scale and marginal farmers (75 per cent of broiler chicks grown)

In the year 2013 the broiler production with a record increase has reached more than 67 million per annum and layer population from about 2.1 million layers in 2012 to about 2.9 million in 2013.

The day-old pullet chicks are supplied mainly by Hybrid Poultry Farms Limited and Bokomo Limited (Premier Foods). In addition; approximately 10 per cent of the chicks are imported by the largest layer operations in Zambia to date, Golden Lay Farm.

Pullet chicks are usually imported if the single requirement is larger than that of the local hatcheries' capacity to produce. The sector has also recorded an increase in the production of pullet chicks to the tune of 2.9 million in 2013.

However, the layer industry continues to be threatened by high input costs though there has been an improvement in the price of eggs for a short period in 2013. The frequent fluctuations in the prices of eggs occurring many times in a year are another challenge of egg industry.

Quite a number of eggs produced in Zambia are finding their way to D. R. Congo. It is estimated that about 15 per cent of eggs produced in Zambia goes to DR Congo.

If there is any problem at the border, or unrest in D.R. Congo the flow of eggs out of the country is disturbed and back flow of eggs into Zambian market will ensue disturbing the price stability locally.

2.2.2 Village chicken production

There are no records available to estimate the number of indigenous chicken. Main classes are: dwarf, medium and the heavy. Some of the indigenous strains include spotted, naked neck, and frizzle feathered chickens. Plumage colour of the indigenous chickens varies from pure black, white, silver white, grey, gold and other colour combinations. However, in all provinces of Zambia they are grown, mainly in rural and peri-urban areas. Village chicken rearing is considered to be a harbinger of development to rural Zambia. As it requires low investment, growing chicken can be one of the most sustainable means of income generation and much needed protein production in rural areas. There is no reliable data on the production of indigenous (local) poultry. Golden Valley Agricultural Research Trust (GART) is already encouraging and supporting village chicken production systems.

The proposed introduction of heat stable Newcastle Disease vaccine being made at Veterinary Research Institute, Balmoral, Lusaka is the best thing to happen to sustain and develop village poultry in Zambia, thanks to Kyeema Foundation and Rural poultry Research Institute, Australia.

2.2.3 Poultry Rearing Systems

Major two commercial entities produce about 1.2 million per cycle (producing 600,000 broilers in a cycle each by them) by their own farms and by a number of farms contracted by them (out grower scheme).

If there are 7 cycles of birds reared in a year the total number of birds from these two organizations alone process about 8 million birds per annum. Another 4 million birds are processed by the rest of commercial processing facilities in Zambia.

Major processing facilities are:

- Verino Agro-industries belonging to Hybrid Poultry Farm (brands: Country choice and Eureka)
- Zambeef -Zamchick (brand: Zamchick)
- Galaunia farms-Crest (Brand: Crest).

Other small scale processing facilities available especially in the farms, process about 3 million birds per annum. Therefore, the estimated processed chicken meat is estimated to be 20,000 MT per annum (from 15 million broilers processed with an average dressed yield of 1.35Kg per bird). This forms about 25 per cent of total broiler meat produced in Zambia that is in the organized commercial sector. (Total broiler meat produced is estimated to be 78,000 MT per annum). This shows that 75 per cent of broilers grown in Zambia are by medium, small scale and marginal farmers and most of these birds are sold live.

The medium, small scale and marginal farmers sell a small per cent of their broilers as dressed birds in the local markets or the rest is sold live at the farms or in live chicken markets.

Almost all the broilers are reared, commercially or otherwise, in deep litter system, in open sided houses. One or two farms in Zambia are an exception wherein broilers are reared in cages. Some major commercial production systems are completely automated, environmentally controlled, or semi-automated with open houses. Common litter materials used are wood shavings, cotton seed hulls, cut dry straw / grass or maize (corn) bran etc.

In layer operations, most of the birds are reared in battery cages, and a small per cent is still in deep litter. A few numbers of major commercial layer farms have completely automated, environmentally controlled with tunnel ventilation, and some are semi- automated with automated egg collection, feeding and manure disposal systems but in open houses.

2.2.4 Poultry diseases, Biosecurity and Hygiene

Common poultry diseases in Zambia are mainly Gumboro disease (Infectious Bursal Disease-IBD), *Mycoplasma gallinarum* (Chronic Respiratory Disease-CRD), Infectious Bronchitis –IB, Coccidiosis and *E. Coli* infections.

Large and small scale farmers are aware of bio-security, proper vaccination programme and hygienic and sanitary aspects of chicken rearing do their best to avoid infections. There are numerous broiler and layer farmers having multi-aged birds reared in their farms which is a great threat to bio-security.

The cold chain in vaccine procurement, storage, transport etc is some times a suspect and the vaccination procedure done at the farms is often questionable. The industry players, mainly poultry breeders and stock feed producers educate the farmers on this regularly by farm visits and conducting short workshops and seminars for them.

The industry needs to promote service teams to go and help farmers in vaccinating and de-beaking. Poultry breeders who produce pullet chicks in particular need to have efficient, well informed service teams for the effective conduct of vaccination and de-beaking in their customer farms. They also need to consider getting their customer farms the most efficient and relevant vaccines for diseases of importance.

Point of lay pullets need to be checked for their immunity status especially for Infectious Bronchitis (IB), Newcastle Disease (ND), *Mycoplasma gallinarum* (MG) etc. before they are housed in layer houses.

2.2.5 Stockfeed production

The stockfeed industry has been well placed and geared for taking challenges of producing quality feeds to meet livestock industry's requirements. A number of new feed mills have also come to fill in for ever increasing demand for animal feeds. The potential for compounded livestock feed production capacity is estimated at 250,000 tonnes per year. Major stockfeed producers in Zambia are National Milling

Corporation, Tiger Animal Feeds, Olympic Feeds, Novatek, Nutri-Feeds and Pempe Feeds situated in and around Lusaka. There is one plant in the Copper belt called EFE Animal feeds of Emman Farming Enterprises Ltd. In addition, a few commercial farmers mix their own feeds.

3.0 MARKETING EGGS AND CHICKENS

Marketing is the greatest challenge of today's poultry industry. When we hear that the demand goes down in certain months for chicken and eggs, we tend to forget one very important fact that majority of our people do not have the means to access them.

3.1 Cost and prices:

Cost of broiler day old chick is about USD cents 82 and pullet chick is USD 1.00.16-17 week old pullet goes for about USD 8.7.

The prices of dressed chicken vary between USD 3.0 to USD 3.5 per Kg and the farmers selling live chicken get between USD 3.6 and USD 4.2 per bird.

Egg production has gone up and is still going up with existing and new farmers placing more pullets.

Currently one tray of 30 eggs sells at USD 3.5 (K19-20) in Lusaka. The cost in Lusaka of producing a tray of eggs varies between USD 2.4-2.6 (K13-K14). The margin is therefore about USD 1.3-1.4. per tray of 30 eggs or 0.04-0.045 US cents (K 0.22- K 0.24) per egg. The price for one 30 egg tray is sold at the farm gate at about USD 3.3 and USD 4.2 at the outlets in supermarkets.

In collaboration with poultry producers, Poultry Association of Zambia (PAZ), Nutrition groups, NGOs who are all working for uplifting the nutritional standards of the masses and the Government machinery itself, need to help mount a campaign for increased consumption of eggs and poultry meat. Promotion through generic advertising, hand outs and brochures on nutritional qualities of eggs and chicken meat, radio and TV clips/shows/ competitions on recipes and cooking with eggs and chicken meat should go hand in hand along with individual marketing efforts from poultry producers.

4.0 CHALLENGES OF THE POULTRY SUB-SECTOR

Compared to other poultry industries in the region, the Zambian industry is disadvantaged by many factors which include:

- The 5-15 per cent duty on imports of certain essential feed ingredients;
- The VAT exempt status instead of zero rating is affecting the poultry industry badly;
- Insufficient private quality assurance facilities;
- Lack or shortage of veterinary advisory services available to the small scale producers;
- High cost of financing (high interest rates on both short and medium term borrowing);
- Marketing of poultry products still remains a big challenge particularly for small scale farms;
- Absence of appropriate legislation frame to guide the growing industry's conduct and development;
- Fluctuations in exchange rate;
- High input costs of fuel, energy and the major stock feed ingredients such as maize and soy beans;
- High taxation, disease control and testing charges and local government poultry levies;
- COMESA and SADC protocols that may open the flood gates for poultry products to come into Zambia is a greater threat to the local poultry production, if implemented in full. Cost of finance is high and there is no efficient credit or microfinance available; and
- Brooding and growing of pullets for about 20 weeks with out getting any returns on investment is a deterrent for many to go into egg production.

Major constraints are:

- Lack or short supply of breeding stock/hatching eggs/day old pullets/point of lay pullets;
- Lack or shortage of quality feeds;
- Accessibility of inputs especially feeds and birds (absence or nonexistence of road and rail infrastructure in the region);
- Connectivity among countries in the region also suffers due to this;
- Less adaptability among the farmers to seasonal changes in temperature and air flow and to the basic needs of chicken while building chicken houses is a major factor in getting reduced performance;
- Absence of modern systems of production reduces egg production efficiency of hens bred for a higher performance;
- Less awareness on the importance of weight monitoring from early age, vaccinations, proper de-beaking/beak trimming, de-worming can cause enormous cost in terms of under performance;
- In efficient peak management including drinking water and light management;
- Want of demonstrative and interactive training in poultry husbandry and management;
- Seasonal fluctuations in demand for eggs;
- Erratic Egg exports/imports destabilizing local market;
- Ambient temperatures influencing egg quality;
- Fluctuations in quantities exported/imported;
- Increase in cost of production with reduced margins;
- No way out for surplus eggs, no further processing facility;
- Lack of unity in egg producers to demand for better prices- no networking;
- 'My egg, my price': the verve is missing;
- No organized marketing, no proper branding;
- Lack of knowledge in the nutritional value of eggs and in producing clean wholesome eggs; and
- Producers unaware of techniques in proper storage of eggs.

4.1 Economic fluctuations affecting poultry industry

Zambia has over a decade and more has built a stable macroeconomic frame work which is helping in mitigating some of the potential economic risks. Even though the risk of policy reversal and economic decline is low some of the key areas such as public sector and other structural reforms that take a slow pace, external developments such as food and oil crisis that has happened in 2008, making Zambia a vulnerable economy.

More than 60 per cent of Zambians live and work in rural areas largely depend on agriculture sector which is largely weather dependent. Therefore severe climatic changes lead to increased food insecurity and worsening rural poverty.

One major impact on poultry industry's development and health is from constantly fluctuating exchange rate of local currency, Kwacha. It invariably reflects on the cost of farm inputs and feed raw materials very often. Since maize and soy beans are integral part of feeding poultry their cost and availability make a huge difference in poultry production dynamics in the country. Government policies on import and export do have a direct bearing on the industry. Besides agriculture and livestock development, health of mining industry is cardinal to Zambia's prosperity.

Fluctuations in copper prices in the international market influence country's economic growth generally.

One of the most important policy matters the Government has to attend, in defense of poultry production, is to view more sympathetically the VAT (to be zero rated preferably, as before) and tariff

structure on imported micro nutrients (the feed industry is grateful to the Government for having reduced the customs tariff this year to 5 per cent for vitamin and trace element premixes), Mono and Di calcium phosphates, animal proteins etc for feed production and on imported small scale and commercial poultry keeping equipment, such as drinkers and feeders and automatic feeding/ drinking lines and environmentally controlled systems. Zambia Revenue Authority and Ministry of Finance need to start looking at this request realistically by identifying the items under the tariff code which indicates duty free status for importing poultry keeping equipment instead of referring these items under plastics which attracts tariff of 25 per cent!

4.2 Poultry extension and training

Most of the districts along the line of rail receive training in best practices offered by poultry breeders, stockfeed producers and Poultry Association.

The major potential for growth in the industry's sub sectors lies in efficient utilization of available inputs, cheap but quality inputs and a vibrant market for the products.

We also need an effective legal framework and efficient extension services to help and guide the poultry industry's development agenda.

The Poultry Association has been planning to have its own Resource Center with technical services cell, conference and seminar facilities, and display hall, library and office space in order to serve the industry effectively.

Training modules prepared and handouts and manuals brought out depend on the targeted groups. However, the following areas are mainly focused:

- History and Evolution of modern poultry breeds
- Poultry keeping as a business enterprise
- Development of rural small scale production enterprises.
- Environmental and facility management (housing etc.)
- Basics on genetics and selection methods.
- Poultry rearing management (Poultry, village chicken, etc.)
- Hybridization of poultry-merits and demerits
- Understanding physiology of chicken
- Manage essential systems – Digestive, Reproduction and Respiratory systems etc.
- Poultry nutrition
- Feed ingredients commonly used
- Formulating and compounding feeds for poultry
- Feed analysis and quality assurance
- Disease identification and management
- Health care products and requirements
- Profitability studies.
- Poultry keeping appreciation programmes for agri-business personnel from financial sector

With right attitude and support by all involved in poultry production and development Zambia can achieve self-sufficiency in the production of much needed animal proteins. One way to achieve is to focus on production, productivity and profitability of poultry rearing systems by means of right approach and methods of poultry extension and training.

5.0 FUTURE PROSPECTS

- More investments and new layer farms and expansion of existing farms, all happening now.
- There are two breeders producing pullet chicks. They need to jack up the production to meet the growing demand.
- Modernizing the production systems, better layer houses, battery cages, feeding and drinking facilities are put in place.
- Want of better technical and veterinary services credit and microfinance support etc.

Let us read the writings on the wall, now! In catching up with projected and potential increase in consumption of poultry products the industry needs to get geared for expansion. Breeders and Hatcheries, existing and emerging, need to work with both hindsight and foresight.

Commercial, small and medium scale and emerging poultry producers have to start seeing the writings on the wall in time to avoid 'missing the bus!'

Let us ponder on this for a moment: Just to reach a per capita consumption of more than 100 eggs and 8 chickens per annum in Zambia the industry needs to have an additional 54 million day old broiler chicks and an additional 3 million hens to be brought into production per annum. To feed the extra number of broilers and layers we need to produce about 30,000 MT of feeds more per month!

Historically Zambia had a few more hatcheries in some major towns such as Chipata, Mansa, Kasama, Monze etc in the past. We also had Caledonian Hatcheries (Late Gibson remembered here), Golden Hatcheries (now Bokomo-Premier Foods) in Lusaka and F & G Sykes Hatcheries in Ndola. Most of them have become history! Now the time has come to look again at having satellite hatcheries in major towns in Zambia. Livestock Development Trust is reported to have started operating Kasama Hatchery. Since some of the remaining hatcheries have not operated for a while and the hatching equipment might have become beyond repair or obsolete we need to reorganize ourselves and see where and when we should put up these hatcheries. Major hatcheries such as Hybrid Poultry, Ross Breeders, Bokomo, and Panda Hatchery can take the lead and help reviving them.

In return, they can supply hatching eggs to these satellite hatcheries so that the chicks are produced locally. This will invariably help reduce the cost of chicks and avoid the long stressful journeys the day old chicks are subjected to.

The next sequence is to develop most effective commercial production systems both for broilers and layers in addition to expanding hatchery and breeder production facility.

The private sector needs to wake up to the reality and take the challenge to investment in new projects and in expanding the existing systems with tremendous efforts to market/promote their produce. The future belongs to them!

Major poultry breeders and stock feed producers have plans or in the midst of increasing the production of broiler and pullet day old chicks and feeds respectively in the days to come, in order to meet the ever increasing demand locally. There are already a few silver linings on the horizon!

Zambeef in collaboration with Rainbow Chicken in South Africa is in the process of implementing very prestigious plans on hatchery, breeding farms, stock feed production, processing facility etc. The information will be updated when they start production.

Another prominent commercial broiler farmer is in the process of establishing his own brand of broilers, investing heavily on new grow out farms and processing facilities.

I believe that some of the NGOs operating in Zambia can help revive the production units if approached them with a workable proposal. Talking about NGOs; they and other organizations involved in livestock

development in this country are requested to look at the option of promoting poultry keeping in securing house hold food (protein) security at the shortest time possible. The fact that is clear and lies bare before us is that a good number of Zambian households are managed by women especially in rural areas. They have also taken the brunt of taking care of their homes almost single handedly as HIV/AIDS pandemic has devastated many families in Zambia. Chicken rearing is the easiest, less manual, (and less masculine) vocation most suited for women folks.

Fueled with a very noble slogan of 'one egg a day for every Zambian' (thanks to our former President, Dr. Kenneth David Kaunda, who coined this slogan and who believed in it) great initiatives were taken during the first one decade of our Nation's independence.

Zambia National Service (ZNS) production units and school production units, among other initiatives, sprang up in readiness to realize this dream.

Unfortunately, over the years the productivity in these units had declined; and most of these units were under-utilized or run down.

To realize the much talked and worked out Millennium Development Goals (MDGs) poultry production should be an undisputable vehicle as far as improving the protein nutrition of the common masses is concerned. Agriculture Sector Programme (ASP), Livestock Development Trust (LDT), ZATAC, Heifer International, Oxfam, USAID, and other international development agencies of countries such as Britain, Netherlands, Belgium, Japan, Germany, Sweden, Norway, Denmark, Finland, Ireland, Canada and other cooperating and friendly countries should look more closely at poultry development as a possible and more attainable part of their development and food security aspirations for Zambia.

Zambia was not spared unfortunately when HIV/AIDS pandemic hit our continent about two decades ago. This scourge has affected agricultural sector in a big way and skilled and non-skilled human capital being used in poultry farming is not at all an exception either. A large number of organizations have been coming to work in Zambia to help prevent HIV infection in our people, treat the infected with ARVs supported with home based care and nutritional support programmes. For a second, reflect on the inclusion of eggs and chicken meat as part of the nutrition support efforts, and then see definitely possible positive change in the health of the People Living with HIV/AIDS (PLWHA).

There are number of income generating initiatives taken by a few NGOs in assisting HIV/AIDS support groups in poultry rearing projects. However, the need for such programmes is so enormous; more efforts in this direction are urgently required. Such initiatives will not only provide direct nutrition support but will also sustain the livelihood of PLWHA and their families.

The egg, the preserve of all the essential life supporting proteins which are easily digestible can also form the most important protein source for people suffering from other emaciating health conditions, and for children, expecting mothers and the old. Just a thought on behalf of our women folks: poultry keeping by women is one of the best means of economically empowering them. Women and women groups should get utmost encouragement in initiating poultry projects. Is it not glaringly true that many a Zambian house hold is run by women lately?

The consoling thing is that the middle income segment in the population of Zambia is swelling day by day and the demand for animal proteins is on an increase lately. But on the other hand, in the case of eggs, the major constraint experienced very often is the lack of knowledge of the nutritional quality of eggs and the absence of the 'mindset for going the eggs way!' An EGG a Day for every Zambian-is this dream achievable or it will forever be a utopia of past and present day regimes?

Remember some of the ideas branded as utopian or not achievable have become realities in the history of mankind. As a start, consider our school going children. The government and the private schools in Zambia can introduce a scheme of providing each child with a boiled egg at lunch. Yes, administration of

this programme may not be easy but the benefits and positive changes in the life of our children are manifold.

It will be a great idea to form Poultry Awareness and Promotion Clubs amongst students who will carry the goodwill message of Eggs and Chicken from generation to generation! This will help us build a healthy and vibrant Nation that respects and appreciates the goodness of poultry products and their importance in our diet. Let us not forget the potential in Zambia for developing other poultry- quails, guinea fowls, ducks, geese and turkeys. They should find their own niche place in our midst. This group generally comes under exotic birds and we need to develop them for an exclusive market.

The time has come for the industry to build up training facilities for farmers, veterinarians, farm managers and others and set up experimental rearing and production/processing sections.

The veterinarians who come out of the university should be well equipped through special 'hands on training' in poultry production management and disease control, to take up challenges of managing poultry production systems both in private and public sector. At the University of Zambia there are chicken rearing facilities as part of the training under the department of Animal production and another one coming up as part of the School of Veterinary medicine. These and others which already exist in places like Natural Resources Development College (NRDC), College of Agriculture, Monze and LDT's various production sites are all waiting for revival, proper funding and management. Poultry Association and the industry as a whole should take up responsibility to set up training programmes in poultry. Poultry Association has been planning to have its own Resource Center with conference /seminar/ display hall, library and office facility in order to serve the industry effectively. This project needs support from the industry itself, the Government and the NGOs.

The industry needs to consider the following ideas/thoughts for sustaining the development of poultry sector in Zambia:

- Establish or help establish new markets for small scale poultry farmers, even at district levels.
- Establish a poultry school for farmers and extension personnel.
- Put up a Poultry Resource Centre that will have poultry library, exhibition hall, PAZ offices, meeting/workshop facilities and technical services unit.

Stimulating egg production by:

- Creating access to microfinance.
- Providing the small scale farmers with training in basic poultry management, entrepreneurship and basic business knowledge.
- Making them aware of advantages including margins in egg production.
- Converting public to the habit of consuming more eggs.
- Establishing network for farmers with input suppliers and marketing outfits.
- Running poultry appreciation programmes for staff from finance and insurance institutions.
- Networking among egg producers for stability and sustainability in egg prices.
- Accessing most reliable inputs mainly pullets/pullet chicks and feeds.
- Reinforcing the industry with service team/s for vaccination and de-beaking/beak trimming in pullets.
- Strengthening Government's efforts with the help of industry players and poultry associations in providing training and extension in poultry production (Public Private Partnerships).
- Training of trainers to be introduced to multiple/replicate the benefits.
- Establishing hands- on, demonstrative, interactive training and extension programmes, focusing on a 'field to plate' approach.
- Training built on the recipients' own instincts, past experience and expertise.

- Make it as interactive as possible, as demonstrative as possible, as performance based as possible
- Make it as simple as possible
- Some of the programmes to be undertaken by the industry in this respect are:
- Conduct Short term hands-on training programmes (Tailor-made hands-on & demonstrative training (problem solving approach).
- Establish mobile extension and training models (an out reach approach).
- Run Farmers' field school (Learn- by- doing).
- Do farm visitations (interactive).
- Establish farmers' poultry clubs (interactive).
- Put up one stop poultry services units.
- Establish information dissemination and net working (SMS, E mails, Radio, TV.)
- Distribute handouts/brochures/booklets, as extension & training materials.
- Run cooperative clubs at village and district levels.
- Establish poultry appreciation clubs in schools and other learning institutions.
- Involve the community in training and extension programmes through representatives of traditional leaders, chiefs and headmen, churches' Women groups at provincial and district levels.

Concluding, a request: the esteemed readers kindly recognize the importance of poultry in your lives, be production, promotion or consumption of poultry products. The people directly involved in poultry industry and its well wishers should work in unison to reach our goal. This should take the shape of a National movement, a movement to ensure protein food security in our country.

Kindly allow the author to end this write-up with a few words borrowed from Albert Einstein, 'Nothing changes until something moves'.

NOW IS THE TIME FOR US TO MOVE!