

**INVOLVEMENT OF WOMEN IN POULTRY PRODUCTION: A VERITABLE WAY FOR  
POVERTY REDUCTION IN NIGERIA.**

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**ABSTRACT**

This paper seeks to discuss the involvement of women in poultry production as a veritable way for poverty reduction in Nigeria. It also brings to light the entrepreneurship potentials of the Nigerian women in broiler production. Critical issues such as the past, present and future prospect of poultry production is discussed. Poverty reduction through setting up of group broiler farms owned by women, international women collaboration as well as grass-root women interactions is discussed. The great advantage inherent in massive funding of deserving women in setting up broiler farms by government, stakeholders and international donor agencies is also discussed. The paper also elucidated the importance of adequate knowledge, skills as well as a written sample guide of a small scale broiler production for women. It is concluded that effective national development and poverty reduction can be possible through massive women involvement in sustainable poultry production now and beyond 2015.

**Keywords:** Women, Poverty alleviation, Poultry production, Nigeria

**Introduction**

The population of Nigeria represents 2.46% of the world's total population. Nigeria was estimated to have a population of 178 million as at July 1, 2014 with a current count of up to 182 million and estimated to hit 440 million come 2050 (Worldometer, 2015). Out of these 178 to 182 million about 87 - 90 million are women (Worldometer, 2015). With this statistics, women have the numeric advantage that will certainly create significant impact in nation building if empowered. However these Nigerian women due to some societal issues have been relegated to a level at which their full potential is not fully harnessed. The Nigerian women are worst hit by poverty compared to their male counterparts. Most of these women do not have any meaningful source of livelihood and do not have equal opportunity to get empowered like their male counterparts. This leads most of these young and industrious women into vices like prostitution in order to make ends meet (Deepali, 2015).

In recent times, the interest of government and well-meaning people around the world have been ignited towards empowering women because of their outstanding achievements when given key administrative positions (Deepali, 2015). According to IMF (2005) report, empowering women will lead to massive poverty reduction in Nigeria. There are

various ways of empowering Nigerian women and one of such ways is involving them in profitable broiler production. According to Ike and Ugwumba, 2011, broiler production is in short supply and demand on the other hand is growing by nearly 3.5% per annum (FAO, 2013). With the growing population in Nigeria, the increased demand for poultry meat is inevitable, hence the need for an expanded production (Chukwu *et al.*, 2006). From this statistics, it can be deduced that broiler production is an area of livestock production that its full potentials have not been fully harnessed considering the ever increasing Nigerian population as well as high demand for animal protein. Broiler production comes first to mind as a medium for reducing poverty among women because of its numerous advantages such as quick returns of investment, short maturity period (8-10 weeks), the meat is tender and juicy, it offers employment opportunity to the keeper, it does not have any religious taboos associated with its consumption and it is a source of white meat which has less cholesterol (Ironkwe and Ameafula, 2008). However, most broiler enterprises tend to close down because of poor management practices, inadequate running capital, high cost of feed which accounts for about 65-75% of the total cost of production (Olomu, 2011).

Notwithstanding the setbacks, many broiler farmers have achieved tremendous successes in broiler production through, effective management, adequate funding and the use of un-conventional feed ingredients to feed their broiler. Women can get actively involved in profitable broiler production with the help of government, banks and non-governmental bodies through organizing skill acquisition programs and provision of grants for well deserving Nigerian women that are interested in broiler production. Little has been reported on the involvement of Nigerian women in broiler production.

This paper therefore seeks to bring to light the significant impact that involving women in broiler production will have not only on poverty reduction among Nigerian women but also on nation building.

**Poverty and the Nigerian woman**

Poverty has become a common scene in African societies so much so that it is assumed to be a normal phenomenon. In Nigeria any escape from poverty level is seen as a miracle. Poverty has been looked at

from different perspectives. The absolute approach sees poverty as having less than an objectively defined absolute minimum. The relative approach states that poverty is having less than others in the society while the subjective approach observes that poverty is a feeling that one does not have enough to get along (Phipps, 2003). In other words, poverty is a situation in which a person has insufficient resources to withstand the dictates of his society and life generally. Despite socio-economic and other roles of women; they are considered among the poorest of the world's poor. One time President of the World Bank, Barber Conable noted: "Women do two-thirds of the world's work, yet they earn only one-tenth of the world's income and own less than one percent of the world's property." The above statistics is worth noting considering the fact that the world over, extreme poverty has been implicated in the rising tide of crime and insecurity. This means that in a developing country plagued by poverty, women will have less nutrition, less access to clothing and shelter, less health care and less education. To many scholars, the very word poverty takes on a female connotation leading to such terms as "the feminization of poverty." Former UNICEF ambassador Audrey Hepburn decried the "dreadful apartheid of gender going on in the developing world." Nigeria's population is estimated at 170 -183 million and of this number nearly 80 - 90 million are women, thus representing about 49% of the total population (Wordometer, 2015). According to a 2001 document by Budget and Planning, the Nigerian woman's productive and reproductive functions cut across such activities as performing household chores, income earning activities, community participation and community management roles. With the industrious nature of the Nigerian women, the relationship between the Nigerian women and poverty is just not acceptable. The looming question therefore is "what is the way forward for the Nigerian woman"? Which way Nigerians? Should we wait until this canker worm eats up what remains of the Nigerian fabric? Must this parasite continue to feed on the Nigerian woman with such impunity? What can be done at all levels to stop the spread of this gangrene called poverty? It is worthy to note that poverty reduction is a collective effort, and an on-going exercise.

At the level of government, it seems that poverty alleviation has merely been glorified on the pages of newspapers and news conferences. Past administrations have put forth a long list of suggestions and plans to try to solve the problem. There have been social insurance plans, debt cancellation, talk about improved education, low income housing, removing import barriers, emphasizing a return to the agricultural sector and training in skills acquisition (Nora, 2010). In all fairness, there have been some results albeit feeble. For the most part though, many policies are not

implemented. The mass media should not allow the deafening gong sounds of politics to drown out the cry of the average Nigerian woman. Media persons may set the agenda by carrying stories that emphasize the plight of women. This in turn will raise questions which may provoke discussions, which will in turn lead to gender-sensitive policies and hopefully implementation of these. The Nigerian woman must rise up to the occasion.

### **Numerical Advantage of the Nigerian Women in Considerably Reducing Poverty and Improving their Status Beyond 2015**

By the virtue of the population of Nigeria the potential female labour force is 50% but the actual value is 31% (Titi, 2003). Women are mainly involved in petty trading, selling wares in the market and street hawking in urban areas. According to statistics 78% of women are mostly engaged in the informal sector, which are farming and petty trading. Despite this, their contribution is not commensurate monetarily. The women's unpaid labour is twice that of men, and its economic value is estimated to be up to 30% of the nation's Gross National Product (Titi, 2003).

Women self-advancement has been curtailed by the burden of reproduction, particularly in Nigeria with a very high birth rate as well as the cultural roles associated with women's role in child bearing, child rising and homemaking. Nigerian women like their counterparts, around the world, face a lot of discrimination that limit their opportunities to develop their full potential on the basis of equality with men (Titi, 2003). According to (Adekola, 2014), entrepreneurship in Nigeria used to be male dominated because only men used to own businesses and controlled factors of production which caused gender imbalance in the control and distribution of wealth. This infamous trend is, however, beginning to dwindle especially in the last two decades but not at a satisfactory speed. According to Yavuz (2015), increased participation of Nigerian women in business would contribute immensely to reducing unemployment in the country. According to him, more women in business will be a catalyst for poverty alleviation, economic growth and general welfare of the society.

### **Past, Present and Future Prospects of Poultry Production in Nigeria**

Poultry production is unique in that it offers the highest turnover rate and the quickest returns to investment outlay in the livestock enterprises (Sanni and Ogundipe, 2005). Funds invested in poultry production are recovered faster than in any other livestock enterprise. The rate of growth in production of poultry is the highest when compared with ruminants and other monogastric animals (Braenkaert *et al.*, 2002) and the cheapest, commonest and the best source of animal protein

(Ojo, 2002). Ogundipe and Sanni (2002) affirmed that returns to investment can be improved by turning out batches in a year depending on the length of the production cycle.

The contribution of poultry production to total livestock output increased from 26% in 1995 to 27% in 1999, while increase in the production of table eggs accounted for about 13% during the same period (CBN, 1999). The federal government in a bid to encourage the poultry industry in Nigeria, in 2002 banned the importation of poultry and other animal protein products; therefore, one way of bridging demand and supply in the diets of average Nigerians is through the intensive rearing of poultry and other domestic avians.

Profitable poultry farming mostly depends upon good parent stock, quality chicks and feed (Islam *et al.*, 2002). Nigeria's poultry industry depends entirely on the importation of parent stock from foreign countries (NAPRI, 1998). However, the major constraints in poultry production in Nigeria is the high and rising cost of inputs, feed, day old chicks and medication (Umeh and Udo, 2002). Analysis of cost-returns structure in poultry production would facilitate appropriate knowledge of costs implications in order to obtain optimum economic benefit from investment into the industry (Sanni and Ogundipe, 2005).

#### **Poverty Alleviation through setting up of Group Poultry Farms, International Women Collaboration and Grass-root Women Interactions.**

In most developed countries such as USA and India where a higher percent of women are into broiler production, women in those countries contribute to the GDP of these countries. Their involvement in broiler production has improved their status, reduced poverty and has made most of them employers of labour. The key secret of such success in these developed countries is the ability of government and policy makers of these developed countries to set up and implement policies that will favour and attract well deserving women into businesses such broiler production that yields fast returns to capital (Adekola, 2014). These countries also organize conferences, skill acquisition programs for women that will improve their status through animal agriculture. Women in western countries also form broiler associations and inter country collaborative forum among them in order to exchange ideas and experiences in broiler production. Implementation of these strategies among Nigerian women who have been trained in profitable broiler production will go a long way to improve their status.

#### **The Great Advantage Inherent in Massive Funding of Well Deserving Women in Setting up Poultry Farms by Government, Stakeholders and International Donor Agencies.**

Nigeria is getting hungrier as her population keeps on increasing (Phipps, 2003). The cost of animal protein is on the increase because demand outweighs supply. In Nigeria, animal protein intake is as low as 3.25 grams per person per day. This is lower than the daily protein intake as recommended by FAO (Phipps, 2003). Secondly the unemployment rate among Nigerians is on the increase especially among women and youths. This situation has led most women and youths into vices such as armed robbery, prostitution, women and youth restiveness, pipe line vandalism making the country to lose billions of naira that would have been used to train and fund these women in profitable businesses and improve the GDP of the country as well as the status of these women.

There is also the issue of brain drain where able and intelligent young women seek for greener pasture abroad where they contribute to the growth and development of such countries. Some Nigerian women live in abject poverty; some manage to eat once in a day. A question on the minds of most Nigerian women is: for how long will this situation continue? Nigerian women are industrious. With adequate training, funding and establishment of broiler farms that will generate fast income, the status of Nigerian women will greatly improve, there will be more jobs, less prostitutes, reduced brain drain and overall national growth and development.

#### **Poultry feeding, feed formula samples for broiler starter and finisher**

Table 1, shows a tested feed formula for starter and finisher broilers. One of the factors that affect poultry production is the ability to get quality feed at affordable prices. Feed constitute about 65-75% of total cost of production (Olomu, 2011). The better the quality of feed given to the broiler, the better their performance. A broiler feed must be balanced in nutrients such as protein, vitamins, fats and oil, mineral and carbohydrates (Energy). Formulation of feeds against buying of commercial feeds by a farmer can drop the cost of production. However adequate knowledge of feed formulation is required because wrongly formulated feeds can lead to poor broiler performance and reduced returns on investment. This sample guide can be used by a female broiler producer to formulate her own feed in order to cut down on feed cost and ultimately reduce cost of production.

**Table 1: Feed formula for starter and finisher broilers**

| Ingredient      | Broiler starter (kg) | Broiler finisher (kg) |
|-----------------|----------------------|-----------------------|
| Maize           | 48                   | 60                    |
| Soy bean meal   | 22                   | 20                    |
| Spent grain     | 10                   | 5                     |
| PKC             | 4.5                  | 4                     |
| Wheat offal     | 4                    | 2.5                   |
| Fish meal       | 4                    | 4                     |
| Blood meal      | 3                    | -                     |
| Bone meal       | 2                    | 2.50                  |
| Oyster shell    | 1.5                  | -                     |
| Premix(Vitamin) | 0.25                 | 0.25                  |
| Methionine      | 0.25                 | 0.25                  |
| Lysine          | 0.25                 | 0.25                  |
| Salt            | 0.25                 | 0.25                  |
| <b>Total</b>    | <b>100</b>           | <b>100</b>            |

Adapted from Ahiwe *et al.* 2014

Price of ingredients per kg as at June, 2015. Maize = ₦70, Soy bean meal = ₦ 140, Spent grain = ₦ 35, PKC = ₦ 26, Fish meal = ₦ 170, Wheat offal = ₦ 46, Bone meal = ₦ 15, Oyster shell = ₦ 15, Lysine = ₦ 1200, Methionine = ₦ 2000, Vitamin Premix = ₦ 800, Salt = ₦ 160.

NOTE 1: The cost of producing the above Broiler starter formula is ₦92.53 per kg or ₦ 2300 for 25 kg bag as against ₦ 2500 for 25 kg commercial feed. (Thereby saving ₦ 187 per 25kg bag).

NOTE 2: The cost of producing the above Broiler Finisher formula is ₦ 93.09 for 100 kg bag or ₦

2327 for ₦ 25 kg bag as against ₦ 2400 for 25 kg commercial feed. (Thereby saving ₦73 per 25 kg bag).

A female farmer producing more bags of feed will enjoy lot of profit, save more and is sure of the nutrient value and quality of feed she is offering her broiler birds in other to maximize profit at least cost. Table 2 and 3 shows the minimum floor, feeder, water and weekly feed consumption per broiler in grams. Adequate management of broilers from day old is a major determining the overall performance of broilers.

**Table 2: Recommended minimum floor, feeder and water space for broilers.**

| Age                     | Floor space/bird                  | Feeders space /bird | Water space (birds/cm) |
|-------------------------|-----------------------------------|---------------------|------------------------|
| Day-old to 18 days      | 450cm <sup>2</sup> (0.5sq.ft.)    | 3 cm                | 1.5 cm                 |
| From 19 days to 42 days | 1000 cm <sup>2</sup> (1.1 sq.ft.) | 6-7 cm              | 3 cm                   |

Adapted From Esp, 2010.

**Table 3: Average weekly feed consumption per Broiler bird in grams**

| Weeks | Feed consumption of Broiler (g) | Cumulative Feed Consumption (g) |
|-------|---------------------------------|---------------------------------|
| 1     | 110                             | 110                             |
| 2     | 315                             | 425                             |
| 3     | 415                             | 840                             |
| 4     | 660                             | 1500                            |
| 5     | 710                             | 2210                            |
| 6     | 850                             | 3060                            |
| 7     | 910                             | 3970                            |
| 8     | 970                             | 4980                            |
| 9     | 1020                            | 5020                            |

Adapted from Ironkwe and Ameafula, 2008

#### Broiler bird vaccination/medication guide

Table 4 shows a broiler bird vaccination/medication guide. Vaccines are live, attenuated or dead antigen contained in a medium which when given to birds at the right quantity and time stimulates specific immune responses that protect the broiler birds from the actual disease outbreak for a period of time. Administration of vaccines at the right dose and time protects broiler birds from disease outbreak in the farm. Example of diseases that require vaccines includes Newcastle, Gumboro, Fowl pox etc. Adequate knowledge of vaccine

administration and dosage is required to avoid vaccine failure and high mortality rate. In Broiler production, vaccination is not an option, it is a must.

**Table 4: Medication/Vaccination Programme for Broilers**

| Day                   | Medication/Vaccination   |
|-----------------------|--|
| 1 <sup>st</sup> day   | Antibiotics+ Glucose + multi-vitamine (Antistress) +Newcastle disease vaccine (Lasota) |
| 4-6 <sup>th</sup> day | Coccidiostat   |
| 7 <sup>th</sup> day   | Gumboro  |
| 14 <sup>th</sup> day  | Coccidiostat   |
| 21 <sup>st</sup> day  | Newcastle disease vaccine (Lasota)   |
| 28 <sup>th</sup> day  | Coccidiostat   |
| 4 <sup>th</sup> week  | Newcastle disease vaccine (Lasota)   |
| 5-6 weeks             | Antibiotics  |
| 7 <sup>th</sup> week  | Coccidiostat   |

Adapted from Ironkwe and Ameafula, 2008

**Sample of a feasibility study of broiler production**

Before going into any business, a potential entrepreneur needs to research on a business venture. This is the foundation of a successful business. Table 5 – 9, shows the profitability of a broiler venture. Prices and estimates were gotten from prevailing market prices as at 1<sup>st</sup> June, 2015. The feasibility study shows Three (3) years projection of

expenditure and income potentials of a broiler venture if under taken by a female farmer in Nigeria. However adequate managerial knowledge is required through adequate training in broiler production. This is where the Government, well-meaning people, banks, international donor agencies comes in to play a key facilitating part in achieving in other to mitigate poverty in our beloved country Nigeria.

**Table 5: CAPITAL REQUIREMENT FOR 1 CYCLE START UP**

| FIXED ASSET                             | DETAILS                                   | Rate    | AMOUNT (₦)        |
|---|---|---------|-------------------|
| <b>Poultry house</b>                    | 1   | 400,000 | 400,000           |
| <b>Feeders/drinkers</b>                 | 50  | 750     | 37500             |
| <b>Brooding Equipment</b>               | 1   | 50,000  | 50,000            |
| <b>SUB TOTAL</b>                        |   |         | <b>487500</b>     |
| <b>WORKING CAPITAL</b>                  |   |         |                   |
| <b>Stocking</b>                         | 500                                       | 200     | 100,000           |
| <b>Feeding: Broiler starter (tons)</b>  | 0.7                                       | 100,000 | 70,000            |
| <b>Broiler Finisher (tons)</b>          | 2.625                                     | 80,000  | 210,000           |
| <b>Personnel Cost (months)</b>          | 2   | 15,000  | 30,000            |
| <b>Other Overhead Expenses Estimate</b> | Drugs & Medication, fuel, contingency etc |         | 75,000            |
| <b>TOTAL WORKING CAPITAL</b>            |   |         | <b>447,000</b>    |
| <b>OVERALL TOTAL</b>                    |   |         | <b>934,500.00</b> |

Adapted from Ironkwe and Ameafula, 2008

**Table 6: CAPITAL REQUIREMENT FOR CYCLE 2, 3 AND 4 WITH ASSUMPTION THAT THEY ARE SAME.**

| <b>FIXED ASSET</b>                      | <b>DETAILS</b>                            | <b>Rate</b> | <b>AMOUNT (₦)</b> |
|---|---|-------------|-------------------|
| <b>Depreciation on Poultry house</b>    | 1   | 40,000      | 40,000            |
| <b>Feeders/drinkers</b>                 | 100                                       | 6.25        | 6250              |
| <b>Brooding Equipment</b>               | 1   | 5125        | 5125              |
| <b>SUB TOTAL</b>                        |   |             | <b>51375</b>      |
| <b>WORKING CAPITAL</b>                  |   |             |                   |
| <b>Stocking</b>                         | 500                                       | 200         | 100,000           |
| <b>Feeding: Broiler starter (tons)</b>  | 0.7                                       | 100,000     | 70,000            |
| <b>Broiler Finisher (tons)</b>          | 2.625                                     | 80,000      | 210,000           |
| <b>Personnel Cost (months)</b>          | 2   | 15000       | 90,000            |
| <b>Other Overhead Expenses Estimate</b> | Drugs & Medication, fuel, contingency etc |             | 37500             |
| <b>TOTAL WORKING CAPITAL</b>            |   |             | <b>447500</b>     |
| <b>OVERALL TOTAL</b>                    |   |             | <b>498875.00</b>  |

Adapted from Ironkwe and Ameafula, 2008

**Table 7: Over all working capital for one year**

| <b>Cycle</b> | <b>Amount of over all working capital for 1 year(₦)</b> |
|--------------|---|
| 1            | 934500.00   |
| 2            | 498875.00   |
| 3            | 498875.00   |
| 4            | 498875.00   |
| <b>Total</b> | <b>2,431,125.00</b>                                     |

Adapted from Ironkwe and Ameafula, 2008

**Table 8: 1-YEAR SCHEDULE OF PRODUCTION AND REVENUE ESTIMATES**

| <b>CYCLE</b> | <b>ITEMS</b>    | <b>NO.</b>  | <b>UNIT COST (₦)</b> | <b>STOCK</b> | <b>TOTAL AMOUNT(₦)</b> |
|--------------|-----------------|-------------|----------------------|--------------|------------------------|
| <b>1</b>     | Market Broilers | 475         | 1500                 | 500          | 712500                 |
| <b>2</b>     | Market Broilers | 475         | 1500                 | 500          | 712500                 |
| <b>3</b>     | Market Broilers | 475         | 1500                 | 500          | 712500                 |
| <b>4</b>     | Market Broilers | 475         | 1500                 | 500          | 712500                 |
| <b>TOTAL</b> |                 | <b>1900</b> | <b>6,000</b>         | <b>2,000</b> | <b>2850000</b>         |

**NOTES**

Adapted from Ironkwe and Ameafula, 2008

5% mortality of birds assumed

Net income = Revenue - Expenditure

Net income = 2850000 - 2431125 = ₦418875

A female poultry farmer can make a net income of ₦418875 a year.

For 3 years projection assuming that price remains constant and no building was built again, brooding equipment, feeder and drinker is not changed but depreciation is included.

So for year 2 net income = net income from year1 + fixed asset

Year 2 net Income = 418875.00 + 487500.00 = ₦906375.00

Year 3 net income = 418875.00 + 487500.00 = ₦906375.00

**Table 9: Net income for 3 years**

| Year         | Net income(₦)     |
|--------------|-------------------|
| 1            | 418875.00         |
| 2            | 906375.00         |
| 3            | 906375.00         |
| <b>Total</b> | <b>2231625.00</b> |

So a Nigerian woman can start a 500 broiler business with ₦ 934,500 and make a net profit of ₦ 2,232,625 at the end of 3 years. From the above it can be deduced that broiler production can be a veritable way of reducing poverty among Nigerian women.

### Conclusion

Effective poverty reduction especially among Nigerian women can be achieved through massive involvement of women in profitable and sustainable broiler production now and beyond 2015.

### Recommendation

1. It is recommended that the Nigerian government and policy makers should propose and implement policies that will help women access grants after undergoing skill acquisition programs in broiler production.
2. It is also recommended that broiler skill acquisition centers be established in all the 36 states of the country (Including the FCT).
3. Considering the numeric strength of women, more girl children should be sensitized on the importance of agriculture to encourage more girl child enrolment in agriculture at various Universities in Nigeria.
4. Establishment of association of female broiler producers with branches in various states of the federation is recommended.

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