

# The role and production systems of native chickens in Nigeria

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**ABSTRACT:** There are two main production systems of native chicken in Nigeria which are extensive (free range) and semi-intensive system. The intensive system of production is at rudimentary stage of adoption by the rural farmers due to high cost of housing, feeding, medication, veterinary services and other facilities. The extensive system of production as practiced in Nigeria, is characterized by scavenging, lack of planned housing system, feeding regimes, medication and care for the chickens. The owners provide little or no input for the survival of the birds. The birds are exposed to vagaries of weather, hazards of predators, pests and diseases, and human thieves. The semi-intensive system is a little bit better since the birds are given more attention than in the extensive system. The birds are given supplements and feed in form of grains and household waste. Occasionally, medication are administered. They are provided with houses to roost at night unlike in the extensive system. More attention to be paid to the two systems of management because of the contribution of the native chickens to the economy of the rural populace, contribution to the Gross Domestic Product of the nation, and contribution to the protein intake of the rural community.

**Keywords:** Role, Production systems, Native chickens, Nigeria

## Introduction

There are many husbandry systems employed in the poultry industry with each representing a particular economic method of poultry production under a given situation. The type or class of chicken and farm location plays a major role with respect to which rearing system is adopted. The systems which are most suited to small scale poultry husbandry are: (1) free range, in which the birds can roam at will over an extensive area; (2) intensive, in which the birds are wholly confined, such as the deep-litter system; and (3) semi-intensive, in which the birds are partially confined, but have at least occasional access to an outside run or scratching shed or straw yard. Among them, the extensive systems or the traditional systems are not only favoured by a small minority of farmers, but already have a place in many developing countries

(Bailey *et al.*, 2010). Nigeria is now the sixth most populated nation the world after China, India, USA, Indonesia and Brazil with over 167 million population (NPC, 2014). Poultry outnumbers all other forms of livestock in Nigeria, and, not surprisingly, is found throughout the country wherever there is human settlement. Although pigeons, ducks, guinea fowl and some turkeys are also widely kept, chickens are by far the most common. Typically they are maintained under traditional, low input, free-range management systems, but substantial numbers are also reared intensively on commercial basis, particularly in the southern states of Nigeria. Commercial holdings account for some 10 million chickens, or 11 percent of the total estimated population of 82.4 million (Fayayola *et al.*, 2013). This paper reviews literature which identifies the role and production systems of native chickens in Nigeria.

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### **The role and characteristics of keeping native chickens in Nigeria**

The local chicken constitutes 61% of the 114,300,000 poultry birds found in Nigeria. They contribute substantially to annual egg and meat production (up to 90%) for family consumption and for sale (Fayeye *et al.*, 2005; Farayola *et al.*, 2013). They are self-reliant and hardy birds with the capacity to withstand harsh weather conditions and adapt to adverse environments. They are known to possess qualities such as the ability to hatch on their own, brood and scavenge for major parts of their food and possess appreciated immunity from endemic diseases. Their products are preferred by the majority of Nigerians because of the pigmentation, taste, leanness and suitability for special dishes. Their outputs (egg and meat) are readily available to villagers and people in urban semi-urban areas thus serving as a good source of protein in their diet. In the same vein, they serve as a good source of income. Native chickens play a significant role in the poultry industry in Nigeria. There is scarcely any household within the rural setup where domestic chicken is not raised (Orajaka, 2005). The native or village chicken accounts for the majority of poultry products in Nigeria. They usually comprise between 5-20 birds kept by one family (Ikani and Annatte, 2000) while the family that have between 100-200 birds/annum are few. The birds are usually exposed to the vagaries of weather and they are vulnerable to predators such as hawks, rats, snakes, dogs, cats which prey on the young chicks under the free range and semi-intensive system. The sources of poultry stock reared by rural dwellers or farmers are rural market purchase (81.80%), gift from friends or relations (13.60%) and from agro/veterinary

sources (4.60%). More women and children are involved in rural poultry production than men. They are mostly uneducated though with reasonable long years of experience in rural poultry rearing (Abalaka *et al.*, 2013). The village chicken production system deserves to be considered on its own merit (Ikani and Annatte, 2000) because it is a small investment that produces good returns and because it is a system that is viable and sustainable. It has a serious positive impact on rural household nutritional status and this should be well recognized and given adequate attention. The predominance of native chickens in the Nigerian poultry industry is a good indication that the production system deserves more attention than it has been given before now. The Nigerian native chickens contribute substantially to the protein intake, rural economies and Gross Domestic Product. They also play a key role within the context of many social events (special banquet for distinguished guests, cocks act as alarm clocks) and religious ceremonies (cocks as offerings to the deities) (Ige *et al.*, 2012; Farayola *et al.*, 2013). These native fowls are adapted to the native climate and prevailing harsh ecological conditions. Their products (meat and eggs) are sources of high quality animal protein for households. Unlike the case with pork and beef, there's hardly any restriction or taboos against the eating of chickens in Nigeria. No wonder chickens are used for celebration in all ceremonial situations and festivals. The native chickens are potable and of low fat. They make better use of garbage and household waste than imported chickens. Native chickens are omnivorous, living on seeds, insects, worms, leaves, green grasses and kitchen scrap. The native chicken's meat is preferred to that of commercial broilers because it has better texture

and stronger flavour which is reflected in the price of the native chicken which is twice that of the imported broilers (Ikani and Annatte, 2000). The birds are conveniently size, 925-1258g (cocks) and hens, 768-948g, easily transported alive, and are not zoonotic (Adedokun and Sonaiya, 2001).

### **Production systems of native chickens in Nigeria**

**Extensive system** – In Nigeria, the major rearing conditions among the rural dwellers are the extensive (free range or scavenging) and semi-intensive system. Intensive system is hardly practiced by the rural people. Just like in many other African countries, poultry production in many rural areas of Nigeria is predominantly based on free range system using native types of fowl (Ige *et al.*, 2012). The system is characterized with family ownership of birds (Abalaka *et al.*, 2013). The birds are often left to scavenge to meet their nutritional need. Their feed resources vary depending on native condition and the farming system. Housing may or may not be provided (Atunbi and Sonaiya, 1994). Where housing is provided, native materials are used in the construction. The system is characterized by low productivity, poor disease control programme and poor feeding. The health of the animal is not guaranteed and no disease control programmes such as vaccination of the birds at various stages and ages. The birds are exposed to many disease conditions at various seasons of the year (Abalaka *et al.*, 2013). Chickens raised in this way mostly stay at the vicinity of the houses. There is no special attention, shelter, food or disease control. The birds in-lay make their own nest for egg production, incubation, hatching and brooding. Mortality is usually very high from predators, diseases and

even human thieves. Labour input for maintenance is very minimal (Ugwu *et al.*, 2009).

**Semi-intensive system** – The chickens kept under this system of husbandry, scavenge for most of their feed resources such as crop residues and kitchen waste with little or no grain supplement; they are kept partially housed in their owner's compound and usually released in the morning (Ige *et al.*, 2012). The work involved is carried out by the women while children may help and occasionally men. Most native chicken keepers provide some form of shelter for their birds at night under this system of management. The housing system and facilities vary from the use of spare rooms which are usually kitchens, stores, wire cages, to the building of a "companion house" which usually is a small mud structure of about 1 m high attached to the main building. Although some form of light usually bush lantern could be provided, it is mainly to scare away thieves and predators and not as a source of heat. The chickens are allowed freedom outside the houses which are usually opened in the morning (6-6:30am), and closed in the evening (5:30-6:30pm) when the chickens are back to roost for the night (Ikani and Annatte, 2000).

**Intensive system** – There was a boom in intensive chicken production in Nigeria in the early 1980s, when the government subsidized the prices of day old chicks and feed ingredients (Farayola *et al.*, 2013). This system of management is not easily affordable or practiced by peasant farmers. In addition, this system is not practiced using native chickens in Nigeria due to high cost of housing, feeding, medication and other veterinary services and facilities. The intensive system of managing native chickens can only be found on the research

farms whose results have not been properly documented (Ikani and Annatte, 2000).

### Conclusion

The systems of native chicken production in Nigeria are mainly extensive and semi-intensive system. The intensive system of native chicken production is still at the rudimentary stage only found in research farms. The systems are less rigorous and the birds are usually tended by women and children. The practice enhances family income and nutrition of the family. The systems are quite sustainable but need more attention for improvement.

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