

Gender aspects in family poultry management systems in developing countries

E.F. GUÈYE

Senegalese Institute of Agricultural Research (ISRA), B.P. 2057, Dakar RP, Senegal
Corresponding author: efgueye@refer.sn

Despite efforts to develop intensive poultry production, family poultry (FP) are still very important in developing countries. In most developing countries, the keeping of poultry by local communities has been practised for many generations. FP keeping is a widely practised activity. More than 90% of rural families in most developing countries keep one or more poultry species (*i.e.* chickens, ducks, guinea fowls, geese, pigeons, etc.), and all ethnic groups tend to be involved in FP production. Although generally requiring low levels of inputs, FP is an appropriate system for supplying the fast-growing human population with high-quality protein, while providing additional income to the generally resource-poor small farmers, especially women. FP is also a source of employment for underprivileged groups and less-favoured areas in developing countries. However, constraints facing FP production systems are related to high mortality (mainly due to Newcastle disease), housing, feeding, breeding, marketing, credit, education/training, extension and information dissemination. Organizers of FP development programmes must be sufficiently sensitive to socio-cultural and economic circumstances of potential beneficiaries. Developing schemes that aim to promote and improve the FP sub-sector in a way that is sustainable must not underestimate the specific roles and contributions of relevant members of local communities, as well as their different gender groups *i.e.* women, men, boys, girls, young and old persons. Therefore, getting new information and other various interventions to the front line of production requires well-designed gender research. This work, which must be done by multi- and trans-disciplinary teams to ensure that the production environment in which FP-keeping farmers work is fully understood, helps to identify the target groups of FP producers for development programmes such as in training, extension, information dissemination, provision of inputs and credit, marketing of poultry and their products. Ways to improve the productivity of FP management systems by taking into account socio-cultural, especially gender, aspects in the design, implementation, monitoring and evaluation stages of FP development programmes at community level are also explored.

Keywords: family poultry; gender; management; nutrition; poverty alleviation

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Introduction

According to Branckaert and Guèye (2000) and Guèye (2002a), most of the conditions required by the industrial poultry sub-sector are not met in most developing countries (*i.e.* the availability of hard currencies to purchase most inputs, the availability of a highly skilled manpower, the presence of a strict disease control and the existence of national domestic markets able to absorb poultry products at attractive prices by consumers with adequate purchasing power). Family poultry (FP) are still very important in developing countries. While making one of the best uses of available natural resources, FP constitute an important component of the agricultural and household economy in developing countries, a contribution that goes beyond direct food production for the fast-growing human population. As well as providing employment and income for resource-poor small farmers, especially women (Fattah, 2000; Guèye, 2002b), FP also serve as a means of capital accumulation and as a barter product in societies where there is no or limited circulation of currency. Furthermore, FP are closely linked to the religious and socio-cultural lives of several million resource-poor farmers. Poultry ownership ensures varying degrees of sustainable farming and economic stability for these farmers by minimizing risks and strengthening the cohesion within local communities.

FP keeping is usually the responsibility of women. Unfortunately, there is a lack of awareness of women's and men's specific roles in FP production, this results in 'gender blindness.' Hence women's contribution to this poultry sub-sector remains 'invisible' because it is usually not quantitatively or qualitatively assessed.

FP management systems

Typically four poultry management systems can be distinguished (Bessei, 1987; Sonaiya *et al.*, 1999; Branckaert and Guèye, 2000; Guèye, 2002a; Guèye et Bessei, 2003), namely:

- (1) the free-range system or unimproved backyard system: scavenging, no regular water or feed, little or poor night shelter;
- (2) the improved backyard system: regular water, supplementary feeding, improved shelter, care of chicks in the first weeks, vaccination against Newcastle disease and other diseases (*e.g.* fowl pox, fowl cholera, Gumboro disease, coccidiosis), when necessary, and treatment for parasites;
- (3) the semi-intensive system: as in 2. above, with genetically improved breeds and balanced diets; and
- (4) the small-scale intensive system: as in 3. above, with further improvements in overall husbandry conditions.

All of these systems are encountered in FP, although in the very few cases in which the intensive management system is practised, it is the small-scale option that is adopted. The choice of system is largely determined by the availability of resources and inputs, *i.e.* housing, cages, feed, drugs and time/attention (Guèye, 2002a). The level of inputs also depends on the keeper's or household's socio-economic circumstances. Thus, most FP-keeping farmers adopt the free-range, backyard and semi-intensive husbandry systems, in that order. Also, these management systems frequently overlap; thus, free-range is sometimes coupled with feed supplementation, backyard with night confinement but without feeding; or standard poultry cages in confined space. Under the extensive poultry management systems, there is almost no health care. Thus, FP in developing countries are often maintained with very low levels of inputs (*i.e.* land, labour and capital), though there are possible variations between and within regions or countries. On the whole, FP can be managed by even the poorer social strata of the local communities.

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All over the developing world, the keeping of poultry by local communities has been practised for many generations. FP have been a traditional and integrated component of rural, many peri-urban and some urban households or small farms, and are likely to continue in the foreseeable future. More than 85% of rural families in sub-Saharan Africa (Guèye, 1998), more than 90% of tribal families from 35 surveyed villages in the five districts of western India (Rangnekar and Rangnekar, 1999) and 89% of the rural households in Bangladesh (Fattah, 2000) keep one or more other species of poultry. All ethnic groups tend to be involved in FP production (Guèye, 2002b), and birds are kept for many reasons. Poultry keeping has a symbolic importance within the context of many social and cultural activities (*e.g.* special banquets for distinguished guests, gifts, cocks as alarm clocks for the villagers) and/or religious ceremonies (*e.g.* cocks as offerings to the deities).

The major role played by women, assisted in some cases by children, in FP production in developing countries is widely recognized (Bradley, 1992; Paul and Akter, 1992; Alders, 1996; Bhurtel, 1996; Kitalyi, 1998; Paul *et al.*, 1997; Khan, 1998; Rushton and Ngongi, 1998; Rangnekar and Rangnekar, 1999; Guèye, 2000, 2003). Although they are generally the main poultry owners and they take care of birds, women usually do not usually make the decisions on the use of poultry and eggs (*i.e.* consumption, selling, exchange). The classic division of roles and responsibilities in most traditional societies implies that women have access to FP, but do not have full control over the production tools and the benefits gained from them. There are still very insufficient gender-disaggregated data that would provide exact figures on women's roles in and contributions to this family-based poultry sub-sector. Besides the need for field studies and participatory rural appraisal, sustainable FP development does require the availability of gender-disaggregated data and gender analyses. This is the prerequisite for significantly promoting gender equality and resource equity.

Ownership pattern

FP are generally described as part of the household, and they are one of the domains that can be used to address gender aspects within a production system. Women are the main poultry owners in developing countries, though there are variations within and between countries. According to Guèye (1998), more than 70% of chicken owners in rural areas of sub-Saharan Africa are women, while traditionally pigeons belong only to children (boys). On the whole, women's involvement in poultry farming tends to decrease with increased level of intensification, and the relationship can be described as $y = f(1/x)$; where, y is the women's involvement in poultry farming, and x is the level of intensification (Guèye, 2003). In addition, number of poultry keepers from lower socio-economic strata involved tends to decrease with the level of intensification.

General statements on ownership could however be misleading, because there are different modes of acquisition of poultry (*e.g.* purchase or barter, gift or inheritance) (Guèye, 2002a). In most African rural areas, the ownership of poultry is an outcome of the social, cultural and religious realities of a society. In some African societies, it is even prohibited for women to eat chicken meat or eggs. In other societies in Tanzania, mainly in the pastoral communities, men are not associated with poultry because they are responsible for ruminant stock, while in the coastal areas, where there is no tradition of keeping large stock, both male and female farmers own chickens (Kitalyi, 1998). Although these socio-cultural and religious restrictions are declining, they are worth mentioning because they may influence poultry ownership. Furthermore, ownership pattern may be affected by other factors such as climatic disasters (*e.g.* droughts, cyclones,

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hurricanes and floods), civil wars, political and economical instabilities, which often lead to drastic decreases in numbers and diversity of larger livestock such as goats and cattle. This was the case in Mozambique after a long-lasting war and drought. According to Alders (1996), in rural Mozambique, the degree of men's interest in FP would seem to increase in proportion with decreasing numbers of larger livestock.

In developing countries, keeping poultry is, in many cases, considered to be the first step in animal-rearing activities. For example, in Southern Senegal, 5–6 adult chickens can be bartered for one goat, and about 25 adult hens can be exchanged against one head of cattle. However, according to Guèye (2000), the 'barter exchange rate' in rural Africa can vary with factors such as the household's socio-economic circumstances, geographic locations, climatic conditions and the occurrence of disease(s). Moreover, according to Sonaiya *et al.* (1999), for smallholder farmers keeping poultry represents a household savings, investment and insurance, as the value of the birds increases over time.

Labour profile

Most women in developing countries, especially in rural areas, are over-burdened with a wide range of activities and tasks, in agriculture, animal husbandry and in the household, as well as in fisheries and aquaculture, forestry and small shop keeping (Guèye, 2003). They contribute to the national agricultural output, maintenance of the environment and family food security. Women, sometimes with the help of children, carry out all activities within the sphere of the household. To accomplish all this, women are first to rise in the morning (well before the earliest cock's crow) and the last to sleep. More generally, women, especially in rural areas of developing countries, play critical multiple roles that have key implications in agricultural production, family nutrition and survival, as well as in the well-being of the household. Unfortunately, women traditionally belong to disadvantaged groups in most rural communities in developing countries. Their generally lower status in most societies is a consequence of patriarchal values.

Though women are central to poultry keeping, they may be expected to consult men before making decisions about the birds. Surveys carried out in some developing countries revealed that women are more involved in activities related to the poultry farming (*Table 1*). However, in rural areas of developing countries, the management of poultry, which tends to be better in larger flocks, is generally not left to women alone. All household members participate in the management of poultry. Thus, women are not usually the marketers of chickens, especially when the place of sale is far from the house. Men and children (boys) are usually more involved in the marketing of live birds and their products. Furthermore, men and children are also responsible, to a large extent, for the construction of shelters. However, one study (Anonymous, 1996) reports that, in Mozambique, women collect the building materials and build the floor and walls, leaving the roof construction to the men. Before initiating and implementing any training programme and/or delivering information and extension message, it is essential to conduct research aimed at gathering data on the particular responsibilities of the household members (Guèye and Bessei, 2003).

FP as a tool for promoting gender equality and resource equity

Sustainable FP development programmes are those that are built on current practices and capabilities of beneficiaries. Additionally, they should make efficient use of locally available resources (*i.e.* farmers' knowledge and practices, feed resources, building

*Developments in family poultry production and health***Table 1** Division of labour among family members in the management of poultry in some developing countries.

Study area (Poultry species; No. of households surveyed)	Tasks under the responsibility of family members ¹ (%)	Source
Central River Division, The Gambia (Chickens; 110)	Construction of shelter: W (40.0), M (33.3), C (13.4), F (13.3) Feeding of birds: W (40.0), M (12.2), C (14.4), F (33.4) Cleaning of shelter: W (53.3), M (5.0), C (35.0), F (6.7) Watering of birds: W (80.0), M (0.0), C (8.3), F (11.7) Marketing of products: W (5.0), M (13.0), C (53.8), F (28.2) Treatment of birds: W (35.9), M (15.4), C (25.7), F (23.0)	Bonfoh (1997)
Peri-urban area of Dakar, Senegal (Chickens; 150)	Provision of building materials: W (29.7), M (60.1), C (10.2) Construction of shelter: W (28.2), M (61.1), C (10.7) Feeding of birds: W (62.2), M (23.1), C (14.7) Watering of birds: W (63.9), M (20.8), C (15.3) Cleaning of shelter: W (64.5), M (19.2), C (16.3) Treatment of birds: W (56.4), M (31.6), C (12.0) Purchasing of birds: W (55.3), M (39.5), C (5.2) Marketing of birds: W (57.0), M (37.2), C (5.8) Purchasing of eggs: W (50.0), M (41.7), C (8.3) Marketing of eggs: W (65.2), M (30.4), C (4.4)	Guèye (2003)
Dodoma market, Tanzania (Chickens; 102 ²)	Selling and buying birds in village markets: W (15), M (76), C (9)	Kitalyi (1998)
Rural areas in eleven African countries (Chickens; ³)	Feeding of birds: W (58), M (17), C (19), F (6) Cleaning of shelter: W (58), M (14), C (22), F (6) Treatment of birds: W (57), M (36), C (4), F (3)	Goodger et al. (2002)
Khulna district, Bangladesh (Geese; 30)	Feeding of birds: W (85), M (10), S (2), D (3) Housing and releasing: W (80), M (14), S (1), D (5) Treatment of birds: W (91), M (5), S (1), D (3)	Paul et al. (1997)

¹W=Women, M= Men, C= Children, F= Family, S= Sons, D= Daughters.

²Number of village chicken buyers and sellers surveyed.

³Cameroon (40), Egypt (48), Ghana (50), Côte d'Ivoire (24), Kenya (48), Madagascar (33), Mauritius (54), Morocco (87), Sudan (69), Tanzania (43), Zimbabwe (44).

materials). Objectives and activities of FP development programmes in developing countries should be related to the perceptions, needs, priorities, interests and suggestions of relevant members of local communities, as well their different component groups, *i.e.* men, women, boys, girls, young and old, poorer families, wealthier families, members of different socio-cultural groups. It is therefore essential to take into account the socio-cultural and economic environments of potential beneficiaries in the design, monitoring, implementation and evaluation stages of FP development programmes at community level in developing countries. In particular, organizers of projects should be sufficiently sensitive to socio-cultural issues, especially the gender-based constraints (Guèye, 2003). Development in FP production requires improvements at all levels (*i.e.* flock, household and market), and these improvements should be introduced gradually in order to upgrade farmers' skills on a long-term basis. In FP development interventions, the role and concerns of women should be taken into account by analysing gender-based constraints, needs and opportunities (Table 2). This work must be done by multi- and trans-disciplinary teams. It is essential to fully understand the production environment in which farmers, especially women, work. Appropriate recommendations on ways to improve the productivity of FP-keeping farmers can then be made. Detailed information to be gathered

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through well-designed research will help to develop appropriate interventions in areas such as disease prevention and control, predator control, poultry housing, feeding and watering systems, genetic improvement, marketing of poultry products, credit, training and information dissemination.

Table 2 Gender-based constraints, needs and opportunities in FP production systems in developing countries.

Constraint	Need	Opportunity
Low female participation in exchange of information	Gender sensitisation to allow for more women to participation in formal discussions Increased accessibility to information, use of visual aids where there are problems of literacy Training programmes to include women Training sessions organized in those periods of year and day when woman are not involved in other duties	Adoption of modern technology that can suitably be used in FP production systems Use of (improved, where necessary) indigenous husbandry practices and technology Raise of awareness of the potential of FP in increasing household food security, poverty alleviation and the promotion of gender equality Recognition of restrictions or bans regarding the rearing of certain poultry species and/or consumption of their products
Time constraint in management of young birds (i.e. chicks, ducklings, poults) during peak labour periods	Introduction of labour-saving technologies Introduction of skills on the management of young birds (e.g. use of locally made crates)	Reduction of losses in growing birds Reduction in drudgery of women's work Development of other small businesses
Low scale of production limits access to inputs, technical assistance and markets	Initiation of FP farmers groups or associations Development of associated activities (e.g.) market gardening and other small business) Financial services facilities at community level (i.e. credit and saving clubs) Training in numeracy and management of credit systems	Improvements in access to inputs, technical assistance and in the marketing system Women's empowerment and increasing gender equality
Informal and poor marketing system	Improvements in infrastructures and transport services	Increase in FP products demand and production promotion

Source: Modified from Kitalyi (1998).

FP development programmes in developing countries should be more 'women-friendly' designed and implemented in order to facilitate women's participation (Alders, 1996; Bhurtel, 1996; Khan, 1998; Guèye, 2003). Efforts to empower women, especially in rural areas, have to be envisaged cautiously as there is a serious risk of men taking over once the FP sub-sector becomes more intensive. However, women's involvement in FP development programmes should not be seen as obligatory simply because this is recommended by development agencies or donors, or because poultry keeping is of low status and so men are not involved. Adopting such an approach might disrupt well-structured traditional communities and so undermine the promotion of gender equality. The involvement of women should be based on their existing roles and responsibilities as well as on their particular needs, interests and constraints (Bradley, 1992; Alders, 1996;

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Bhurtel, 1996; Khan, 1998; Kitalyi, 1998; Rushton and Ngongi, 1998; Guèye, 2000, 2002a, 2003). This approach will result in the more efficient use of human resources.

Conclusions

Despite efforts to develop the intensive poultry sub-sector, FP are still very important in developing countries. FP production is a valuable asset to local populations because it is not only a source of income, food and employment, but is also critical to strong socio-cultural linkages, especially in disadvantaged groups and less-favoured areas. Agricultural policy makers should therefore pay due attention to this very important, but generally overlooked, sustainable poultry sub-sector. Appropriate interventions should include the improvement of farmers' skills in all aspects of poultry management by taking socio-cultural, especially gender aspects, into account. Indigenous knowledge systems should also not be undervalued, as indigenous knowledge and gender are inextricably bound up with each other. If indigenous knowledge systems are capable of forming a basis for sustainable FP development, their capacity to innovate should make efficient use of gender-sensitive analysis and planning.

The sensitivity of the gender concept calls for participatory, open-minded and flexible development approaches and strategies for FP. Thus, all relevant members of local communities must be involved in the whole process, and their weaknesses in terms of behaviour, perceptions, constraints and attitudes must be identified and taken into account. This enables FP-keeping farmers to bring about appropriate changes in their farm management. On the whole, gender-disaggregated data and information about the FP management systems can be used appropriately to develop the FP sub-sector which, in turn, can be seen as a privileged entry point for addressing gender aspects and for promoting gender equality and resource equity.

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