

## MULTI-FUNCTIONALITY OF SMALL RUMINANTS IN MITIGATING POVERTY, FOOD SECURITY AND HOUSEHOLD RISK AMONG THE INTERNALLY DISPLACED PERSONS (IDPs) IN NIGERIA (A REVIEW)

S.B. Abdu<sup>1</sup>, M.R. Hassan<sup>1</sup>, A. Musa<sup>1</sup>, M.S. Afaka<sup>2</sup>,

<sup>1</sup>Department of Animal Science Ahmadu Bello University, Zaria

<sup>2</sup>Department of Animal Science Kaduna State University

[sbabdu@gmail.com](mailto:sbabdu@gmail.com) +2348060398664

### Abstract

Contributions of small ruminants are widely acknowledged in many developing countries of Sub-Saharan Africa, fulfilling multiple functions and can contribute to improved livelihoods of smallholder farmers. Internally displaced persons are in deer need of food security among others and because of the insurgency the household poverty stricken and are at risk. The multi-functionality of the small ruminants can help in mitigating the challenges of the IDPs in Nigeria

**Keywords:** Insurgence, Internally displaced persons, Mitigation, Poverty, Small ruminant

### Introduction

The Nigeria Livestock Industry contributes a merger 9 – 10 percent of the GDP (Aphunu *et al.*, 2011). Small ruminants (goats and sheep) form an important economic and ecological niche in agricultural systems throughout the developing countries. Nigeria was estimated to have a population of 33,000,000 sheep, 52,000,000 goat and 16,000,000 cattle (FMA, 2008). They are associated with the poorest of the poor, often in marginal and harsh environment (Devendra, 1992; Devendra, 2000). Their contribution in fulfilling multiple functions, such as meat and milk production, manure, insurance, religious rites, bride wealth and ceremonies is well acknowledged, because of their small size, off take cost (initial investment), ease of management and wide acceptability (Peacock, 2005). Certain breeds of sheep (e.g. Djallonké and goat (e.g. West African Dwarf) are thought to be tolerant of trypanosomiasis and other diseases, allowing them to be grazed on land not available to other domestic livestock.

Goats are quite popular in livestock programs aiming to reduce poverty and improve livelihoods, especially in areas that suffered from natural and other disasters (Budisatria and Udo, 2013). Small ruminants (especially goats and sheep) form an integral and important component of the pattern of animal production in most rural communities (Davendra, 1985). Sheep and goats are widely distributed in Nigeria in rural, urban and peri-urban areas representing about 63.7% of total grazing domestic animals in Nigeria (Gefu, 2002).

Boyejo and Adedoyin (1994) also reported that rearing of sheep and goats is a common feature in most rural households in Nigeria and are

important items in meeting socio-cultural obligations. Also they contribute to the economic, food security, family income and risk mitigation (Hooft *et al.*, 2008).

It is widely recognized that there are multiple ways in which small ruminants can contribute to improved livelihoods, their different functions are not always used to their full potential, particularly in developing communities (FAO, 2012; Lebbie, 2004) and more especially in areas of mitigating food security and poverty alleviation. This paper looks at how the small ruminants can play this role.

### The North east and internally displaced people

The internally displaced people (IDPs) are in such a situation presently, were they are about to be resettled, with things becoming normal. The North East region (Comprising of former Borno, Bauchi and Gongola states) is an agrarian area, which is known for livestock production and cereal crop production in Nigeria. IDPs are those who have been ravaged by the insurgency of the Boko Haram and this has made farming and other agriculture activities in these areas very difficult or impossible and this has serious consequences on the livelihood of the people living in these affected areas.

### Importance of small ruminants in developing countries

Small ruminants' plays important roles and functions in different categories. Rangnekar (2006) in India identified an output function, an input, risk coverage or asset function and socio-cultural functions of the small ruminants. In a study in Kenya, Kosgey *et al.* (2008) differentiated between tangible, i.e. cash income from meat, milk and manure, and intangible benefits, i.e. banking or insurance against emergencies and display of status. Davendra and

Chantalakhana (2002) also mentioned that goats are sold when smallholders are in need of cash to pay fees for children's education, clothes and books, and as such, goats provide (medium-term) savings for smallholders.

Goats have been used for certain services and products, such as payment for the service of traditional healer, agricultural labour and products (Boogaard and Moyo, 2015). Also, Boogaard and Moyo, (2015) in their current study showed three pathways through which goats can contribute to food security: (i) consumption of goat meat (rather unimportant reason), (ii) sale of goats in times of food shortage to buy food (important reason), and (iii) exchange of a goat for agricultural labour on the crop fields.

Haenlein (2004) has reviewed the importance of goat milk in human nutrition and emphasised two aspects. One concerns treating people afflicted with cow milk allergies and gastro-intestinal disorders. The other is the trend and market demand to meet the growing gastronomic needs of connoisseur consumers in the developed countries. Apart from the anti-allergy properties in goat milk, other important characteristics in goat milk are the presence of higher levels of six of the ten essential amino acids and also monounsaturated, polyunsaturated and medium chain triglycerides which are all known to benefit human health (Posati and Orr, 1976).

#### **Mitigating role of the small ruminants to the IDPs**

The small ruminants can contribute immensely to mitigating the demanding challenges to be faced by the IDPs among which include the following:

- Food security: The small ruminants can provide the much needed animal protein in form of meat and milk for the nutrition of IDPs among which include the most vulnerable (pregnant mothers and the under five infants)
- Poverty alleviation: The IDPs are mostly farmers, through small ruminant keeping, increasing farm production and productivity using income from the sales of animals and animal products alike to buy inputs and animal resources (e.g. by-products and manure) to increase crop production will be a bale out from poverty.
- Reconstruction and rehabilitation: This can be achieved through income generation from the sales of small ruminants: Cash economy and value

addition (sale of live animals and products e.g. meat, skins).

- Household risk: With the ongoing insurgency, crop failure can be high and harvest may be low, in order to avert risk, rearing small ruminant by IDPs can help avert risk of failure
- Social and cultural functions: Religious ceremonies, status, social occasions, weddings, and births are achieved through sacrifice and offerings with small ruminants.

Small ruminants are known to contribute to outcomes like increased income and food security (Boogaard and Moyo, 2015),

#### **Way forward to increase and restock small ruminant flock for the IDPs**

There are different ways to restock or increase the number of small ruminants among the IDPs and their communities:

- Assist IDPs to own (purchase) from areas that were not seriously affected by the insurgency
- Passing on the gift: that is IDPs that were assisted to lend a helping hand to those that the assistance could not reach them by giving the first kid or lamb from the gift they received.
- Creating a breeding and improvement centre, where improved males (Rams and Bucks) would be available for reproduction to others farmers to hasten genetic gain within the shortest possible time.
- Improved management. Farmers to be taught pest and disease control methods, feed and feeding with sown pastures.

#### **Some Challenges ahead**

- Sincerity of purpose of the Government agencies, NGOs and farmers (IDPs)
- Accessibility of these area with landmines and other undetonated explosives and poor road networks
- Programme planning, execution, monitoring and evaluation
- Sustainability of the project

#### **Conclusion**

It can be concluded that the multifunctionality of small ruminants (sheep and goats) can be effectively used in mitigating the challenges to be

faced by the IDPs as normalcy is beginning to return with the defeat of the Boko haran insurgence. Government agencies and NGOs can see the multifunctionality of the small ruminants and use it as a tool for the resettlement, rehabilitation and reconstruction of the IDPs in North eastern region of Nigeria

#### References

- Aphunu, A., Okoedo and OKojie, D.U. (2011).** Small ruminant production constraints among farmers in ika north-east local government area of Delta State, Nigeria. Archives of Applied Science Research, 3 (2):370-376 Accessed September, 2015 from [www.scholarsresearchlibrary.com](http://www.scholarsresearchlibrary.com)
- Boogaard, B.K. and Moyo, S. (2015).** The multi-functionality of goats in rural Mozambique: Contributions to food security and household risk mitigation. ILRI Research Report 37. Nairobi, Kenya: International Livestock Research Institute (ILRI).
- Boyajo, O. and Adedoyin, S.F. (1994).** *International Journal of Food and Agricultural Research* 3(2): 69–79.
- Budisatria, I.G.S., and Udo, H.M.J. (2013).** Goat-based aid programme in Central Java: An effective intervention for the poor and vulnerable? *Small Ruminant Research* 109(2): 76-83
- Davendra, C. and Mcleroy, G. B. (1985).** *Goat and Sheep Production in the Tropics*. England:
- Devendra, C. (1992).** Goats and rural prosperity. Pre-conference Proc. Int. Conf. on Goats, New Delhi, India, pp. 6-25.
- Devendra, C. (2000).** Research on goats: opportunities and challenges. 7th Int. Conf. on Goats, 2:200-201.
- Devendra, C. and Chantalakhana, C. (2002).** Animal, poor people and food insecurity: opportunities for improved livelihoods through efficient natural resources management. *Outlook Agr.* 31: 161–175.
- FAO (Food and Agriculture Organization) (2012).** Livestock sector development for poverty reduction: an economic and policy perspective — Livestock's many virtues, by J. Otte, A. Costales, J. Dijkman, U. Pica-Ciamarra, T. Robinson, V. Ahuja, C. Ly and D. Roland-Holst.(Eds). Rome, Italy.
- Federal ministry of Agriculture (2008).** National Programme on Food Security, Federal Ministry of Agriculture and Water Resources, Abuja.
- Gefu, J.O. (2002).** Socio-economic Considerations in Small Ruminant Production. In: Lakpini, C.A.M., Adamu, A.M., Edoche, O.W. and Gefu, J.O.(eds). *Manual for Small Ruminant Production in Nigeria*. National Animal Production Research Institute, Ahmadu Bello University, Zaria, Nigeria. Pp.8-11
- Haenlein, G.F.W. (2004).** Goat milk in human nutrition. *Small Ruminant Research* 51:155-163.
- Hooft, K, Milar, D., Geerlings, E. and Django, S. (2008).** Endogenous Livestock Development in Cameroon. Agromisa Publishers, Wageningen, The Netherlands.
- Kosgey, I.S., Rowlands, G.J., van Arendonk, J.A.M. and Baker, R.L. (2008).** Small ruminant production in smallholder and pastoral/extensive farming systems in Kenya. *Small Ruminant Research* 77: 11–24.
- Lebbie, S.H.B. (2004).** Goats under household conditions. *Small Ruminant Research* 51: 131–136.
- Peacock, C. (2005).** Goats—a pathway out of poverty. *Small Ruminant Research*. 60: 179–186.
- Posati, L.P. and M.L. Orr, (1976).** Composition of foods, dairy and egg products, Agriculture Handbook No.8-1, USDA-ARS, Consumer and Food Economics Institute Publishers, Washington, DC, pp 77-109.
- Rangnekar, D.V. (2006).** Livestock in the livelihoods of the underprivileged communities in India: A review. ILRI (International Livestock Research Institute), Nairobi, Kenya.