

Issues and prospects of indigenous poultry rearing in hilly areas of J&K state

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ABSTRACT

The state of Jammu and Kashmir is having 5.6 million poultry which contributes about 63.2 million eggs per annum. Backyard poultry contributes about 60% of total poultry produce in the state. Rajouri district, a hill district, is an agriculture based district of Jammu & Kashmir where the main stay of the population in the district is agriculture, livestock and poultry rearing. Due to the small land holding, it has become imperative for these people to diversify the agricultural activities and go for some viable allied activities like poultry farming. Poultry farming appears to be a key for economic upliftment of poor farmers, landless labourers and unemployed youth in this district of the state. To find out the problematic issues and advantageous prospects related to indigenous poultry rearing a SWOT analysis of indigenous poultry rearing in Rajouri District of Jammu and Kashmir had been taken for the study. The SWOT analysis was done village wise and by discussions with the progressive poultry farmers and experts in the field of poultry. Forty progressive farmers were selected from the two selected blocks Nowshera and Sunderbani on the basis of their experience they were involved in indigenous poultry rearing and the number of birds they kept. Twenty experts were selected randomly from the faculty of veterinary science, R.S Pura, Department of Animal Husbandry and field veterinarians. Thus, a total of 60 respondents were selected in all as the sample. In the present study, majority (81.67%) of the respondents reported self employment and entrepreneurship was the main opportunity, 83.33 percent of the respondents were of the view that indigenous poultry enterprises do not need high start-up cost to establish as a profitable business as the main strength, eighty five percent of the respondents reported that lack of good management practices during disease condition was the main weakness and around 81.67 percent of the respondents reported an outbreak of bird flu and other epidemics as the main threat in the indigenous poultry rearing. The topographical constraints, largely poor and resource poor nature of inhabitants makes indigenous poultry a viable enterprise to meet nutritional requirements in terms of cost effective animal protein through poultry meat and eggs in hilly areas.

Keywords: *Constraints, Experts, Indigenous poultry, Progressive farmers, SWOT analysis*

Farming community in most of the developing countries are involved in poultry keeping, thus providing the link between poultry interventions and improvement of people along with the associated improvements in terms of nutrition and other benefits for the entire family (Quisumbing and McClafferty, 2006). India has 72.22 per cent of its population living in rural areas. About 89 per cent rural livestock householders rear poultry as an important supplementary source of cash income

(Khandait *et al.*, 2011). The state of Jammu and Kashmir is a hill region of India situated in Himalayan ranges having 5.6 million poultry which contributes about 63.2 million eggs per annum as per National Agriculture Scenario, 2007. Backyard poultry contributes about 60% of total poultry produce in the state. Rajouri district is an agriculture based district of J&K where the main stay of the population in the district is agriculture, livestock and

poultry rearing. Due to the small land holding and slowly shrinkage of cultivable land, it has become imperative for these people to diversify the agricultural activities and go for some viable allied activities like poultry farming. The topographical constraints, largely poor and resource poor nature of habitants makes indigenous poultry a viable enterprise to meet nutritional requirements in terms of cost effective animal protein through poultry meat and eggs in hilly areas (Ciamarra and Otte 2009).

Indigenous chicken production is common in rural resource poor households in developing countries including India. They play a vital role in the human livelihoods and contribute significantly to food security of the rural communities as chicken products have no cultural or religious taboos (Tadelle *et al.*, 2003). Rural poultry production offers farmers the most accessible “savings accounts” and a source of high quality animal protein for their families, in addition to their socio-economic values as gifts to the guests and sacrificial animals. Indigenous production system is generally described as low input low output, which is a characteristic of the rural households enterprises. Although this production system is preferred due to its low-input requirements, it exposes chicken to harsh conditions such as poor nutrition, uncontrolled breeding, predators, disease and parasite challenges (Abdelqader *et al.*, 2007; Gondwe and Wollny, 2007). Despite these challenges, indigenous chicken have been able to adapt and satisfy the needs of the households and it has potential to enhance per capita egg and meat consumption in hill regions of J & K state. Therefore, the present study i.e. SWOT analysis of indigenous poultry rearing was undertaken to assess the strengths, weaknesses, opportunities and threats related to indigenous poultry entrepreneurial activities in Rajouri district of J & K state.

MATERIALS AND METHODS

The present study SWOT analysis of indigenous poultry rearing was conducted in two blocks viz., Nowshera and Sunderbani of Rajouri

district. A comprehensive list of villages of the selected blocks where indigenous poultry rearing was in practice was prepared. Six villages were selected purposively from each of the two selected blocks. Thus, a total of twelve villages were selected in all. The SWOT analysis was done village wise and by discussions with the progressive poultry farmers and experts in the field of poultry. Forty progressive farmers out of total 120 respondents for the research were selected from the two selected blocks on the basis of their experience in indigenous poultry rearing and the number of birds they kept for rearing. Twenty experts were selected randomly from the Faculty of Veterinary Sciences, R.S Pura, Jammu, Department of Animal Husbandry, Jammu and field veterinarians of Rajouri district. Thus, a total of 60 respondents were selected in all as the sample for SWOT analysis. A semi-structured interview schedule was administered to understand the entrepreneurial activities of indigenous poultry rearing in terms of strength, weakness, opportunities and threats. Before administering the schedule, the objectives of study were explicitly explained to the respondents in their dialect, ensuring that they perceived the question correctly. The answers obtained were recorded and only one respondent was interviewed at a time so that others were not influenced by the reply of the particular respondent. Greater reliance was placed on free and informal interview with them though their responses were recorded word by word.

RESULTS AND DISCUSSION

SWOT analysis is a systematic framework which helps to develop strategies by appraising the internal and external determinants of an enterprise. Internal environmental factors include risk taking abilities, human resource capabilities and financial strength. External factors include competition, government schemes, changing trends and social expectations. The SWOT analysis framework involves analyzing the strengths (S) and weaknesses (W) of the internal factors and the opportunities (O)

and threats (T) of its external factors of performance. Through this analysis “strengths and weaknesses within the indigenous poultry rearing can be matched with the opportunities and threats operating in the external environment so that an effective strategy can be formulated to enhance the entrepreneurial indigenous poultry rearing activities. Hence, an effective strategy can be derived by taking advantage

of its opportunities by using its strengths and neutralize its threats by minimizing the impact of its weaknesses.

SWOT analysis related to strengths (S) of indigenous poultry rearing

The data in Table 1 revealed that 83.33 per cent of the respondents were of the view that indigenous poultry enterprises do not need high start-

Table No. 1 Distribution of the respondents according to the strength of indigenous poultry rearing

S.No.	Trait/category of trait	Nowshera (n=20)		Sunderbani (n=20)		Experts (n=20)		Total (n=60)		Rank
		No.	Percent (%)	No.	Percent (%)	No.	Percent (%)	No.	Percent (%)	
1	Strengths									
1	Indigenous poultry enterprises do not need high start-up costs to establish a profitable business.	16	80	17	85	17	85	50	83.33	I
2	Good source of income for disadvantaged women in efforts to emancipate and empower marginalize women.	17	85	14	70	11	55	42	70	II
3	Emergency source of income	13	65	15	75	13	65	41	68.33	III
4	Traditional poultry rearing knowledge	17	85	14	70	9	45	40	66.67	IV
5	Market for indigenous (desi) eggs and chicken is strong and largely unexploited	11	55	13	65	15	75	39	65	V

up cost to establish as a profitable business. This was the main strength of the indigenous poultry rearing and was ranked first major strength. Further study indicated that seventy per cent of the respondents observed indigenous poultry rearing as a good source of income for disadvantaged women, to emancipate and empower marginalize women and was ranked as second main strength of this sector. These findings are in agreement with the findings of Rarotra *et al.* (1984) and Mathialagan (1995). The results of the present study revealed that about 68.33 per cent of the

respondents considered indigenous poultry rearing as an emergency source of income and was ranked as third main strength. Most of the farmers had more than five years of experience in poultry rearing and about 66.67 per cent of the respondents reported that traditional poultry rearing knowledge was sufficient for rearing the indigenous birds, whereas sixty five percent of the respondents reported that market for indigenous (desi) eggs and chicken was strong and largely unexploited and these strengths were ranked as fourth and fifth. Similar findings have been

Table No. 2 Distribution of respondents according to the weakness of indigenous poultry rearing

S. No.	Trait/category of trait	Nowshera (n=20)		Sunderbani (n=20)		Experts (n=20)		Total (n=60)		Rank
		No.	Percent (%)	No.	Percent (%)	No.	Percent (%)	No.	Percent (%)	
1	Weaknesses									
1	Lack of sensitization of the potential of poultry as a income generating activity	17	85	16	80	12	60	45	75	II
2	Low education level of indigenous poultry keeper	9	45	8	40	14	70	31	51.67	V
3	Lack of good management practices during disease condition	16	80	15	75	20	100	51	85	I
4	Increased work load on women	18	90	17	85	8	40	43	71.67	III
5	Local breeds have low productivity in terms of egg production and weight gain due to genetic limitations	14	70	11	55	15	75	40	66.67	IV

reported by Gangwar and Ramakrishan (1987), Miah (1996) and Kaphle (2000).

SWOT analysis related to weaknesses (W) of indigenous poultry rearing

Perusal of Table 2 indicates that overall eighty five per cent of the respondents reported that lack of good management practices during disease condition was the main weakness in the indigenous poultry rearing, whereas seventy five percent of the respondents considered lack of sensitization of the potential of poultry as an income generating activity as the main weakness and were ranked as first and second main weaknesses. These results were in

consonance with the results of Raha (2009) Further, the present study indicated that about 71.67 per cent of the respondents were of the view that the work load on women increases because apart from the regular household work the women also look after the birds and was ranked as third main weakness. Contrary to the present study, Raj *et al.* (1999) reported the different findings. In the present study, about 66.67 percent of the respondents reported that local breeds have low productivity in terms of egg production and weight gain due to the genetic limitation and it was ranked as fourth main weakness. About 51.67 percent of the respondents were of the view that low

Table No. 3 Distribution of respondents according to the opportunities of indigenous poultry rearing

S. No.	Trait/category of trait	Nowshera (n=20)		Sunderbani (n=20)		Experts (n=20)		Total (n=60)		Rank
		No.	Percent (%)	No.	Percent (%)	No.	Percent (%)	No.	Percent (%)	
1	Opportunities									
1	Poultry can be used as a tool to alleviate poverty while also ensuring food security	14	70	11	55	17	85	42	70	IV
2	Maximizing of production to take advantage of economies of scale.	11	55	9	45	12	60	32	53.33	V
3	Processing to add value to chicken products like chicken pickle	15	75	13	65	20	100	48	80	II
4	Marketing of live birds and eggs could be organized	17	85	16	80	14	70	47	78.33	III
5	Self employment and entrepreneurship	18	90	14	70	17	85	49	81.67	I

education level of the indigenous poultry keepers was the fifth main weakness. The results of the present study are not in agreement with the results of Mohanraj and Manivannan (2012).

SWOT analysis related to opportunities (O) of indigenous poultry rearing

Perusal of Table 3 revealed that majority (81.67%) of the respondents reported self employment and entrepreneurship was the main opportunity in the indigenous poultry rearing and about eighty percent of the respondents were of the view that processing to add value to chicken products was the second main opportunity. These findings are in agreement with the findings of Pandey *et al.* (1996), Guèye (2002). Further in the present study, it was observed that if marketing of live birds and eggs could be organized it also became a good opportunity

for the farmers and was reported by 78.33 percent of respondents as third main opportunity. About seventy percent of the respondents observed that poultry could be used as a tool to alleviate poverty while also ensuring food security and was ranked fourth main opportunity. These findings are in agreement with the findings of Sasaki (1996). The results of the present study indicated that around 53.33 percent of the respondents reported that maximizing of production to take advantage of economies of scale was also a good opportunity in indigenous poultry rearing and was ranked at fifth position.

SWOT analysis related to threats (T) of indigenous poultry rearing

Data in Table 4 revealed that around 81.67 percent of the respondents reported an outbreak of bird flu and other epidemics as the main threat to the

Table No. 4 Distribution of respondents according to the threats of indigenous poultry rearing

S. No.	Trait/category of trait	Nowshera (n=20)		Sunderbani (n=20)		Experts (n=20)		Total (n=60)		Rank
		No.	Percent (%)	No.	Percent (%)	No.	Percent (%)	No.	Percent (%)	
1	Threats									
1	Attack by predators	13	65	14	70	16	80	43	71.67	IV
2	Lack of adequate scavenging land	11	55	12	60	14	70	37	61.67	V
3	An outbreak of bird flu and other epidemics	17	85	15	75	18	90	49	81.67	I
4	Ill health management practices.	14	70	12	60	20	100	46	76.67	II
5	Discontinue poultry keeping once the government schemes / project are over.	15	75	13	65	17	85	45	75	III

indigenous poultry rearing and was ranked first. About 76.67 percent of the respondents reported that poor health management practices were the main threats and was ranked second threat. About seventy five percent of the respondents reported that the farmers discontinued the poultry keeping once the government schemes/projects were over. It was also a threat to the indigenous poultry rearing and was ranked third. Attack by predators was reported by 71.67 percent and was ranked as fourth major threat. About 61.67 percent reported lack of adequate scavenging land as a threat and was ranked as fifth major threat. These findings are in agreement with the findings of Saha (2003), Conroy *et al.* (2005), Mandal *et al.* (2006) and Raha (2009). But the findings of Das (2006) were contrary to the findings of present study.

CONCLUSIONS

The study on SWOT analysis on indigenous poultry rearing in hilly areas had found that indigenous poultry enterprises do not need high start-up costs to establish as a profitable business, good source of income for disadvantaged women in efforts to emancipate and empower marginalize women e.t.c. as the major strengths whereas lack of good management practices during disease condition, lack of sensitization of the potential of poultry as an income generating activity etc perceived as the major weaknesses in the indigenous poultry rearing. Self employment and entrepreneurship was ranked as the major opportunity while the outbreaks like bird flu and other epidemics were perceived as the potent threat in backyard poultry rearing.

REFERENCES

- Abdelqader A, Wollny C B A and Gauly M. (2007). Characterization of local chicken production systems and their potential under different levels of management practices in Jordan. *Tropical Animal Health and Production*, 39:155-164.
- Ciamarra P U and Otte J. (2009). Poultry, Food security and Poverty in India: Looking beyond the farm gate. Research report Pro Poor Livestock Policy PPLPI research report number 09-02/ FAO, Rome.
- Conroy C, Sparks N, Chandrasekaran D, Sharma A, Shindey D, Singh L R, Natarajan A and Anitha K. (2005). The significance of predation as a constraint in scavenging poultry systems: some findings from India. *Livestock Research for Rural Development*, 17(6): 70.
- Das S K. (2006) Strength, weakness, opportunity and threat of livestock and poultry development in the NEH region of India - a review. *Agricultural Reviews*, 27(4): 303 – 307.
- Gangwar A K and Ramakrishan P S. (1987) Agriculture and animal husbandry among the Sulungs and Nishis of Arunachal Pradesh. *Social Action* 37: 344-377.
- Gondwe T N and Wollny C B A. (2007) Local chicken production systems in Malawi: household flock structure, dynamics, management and health. *Tropical Animal Health and Production* 39:103-113.
- Gueye E F. (2002) Employment and income generation through family poultry in low-income food-deficit countries. *World Poultry Science Journal* 58: 541-557
- Kaphle K. (2000) Poultry farming in Nepal. *Poultry International*, pp. 32-36.
- Khandait V N, Gawande S H, Lohakare A C and Dhenge S A. (2011) Adoption level and constraints in backyard poultry rearing practices at Bhandara district of Maharashtra, India. *Research Journal of Agricultural Sciences* 2(1): 110-113.
- Mandal M K, Khandekar N and Khandekar P. (2006) Backyard poultry farming in Bareilly district of Uttar Pradesh, India: an analysis. *Livestock Research for Rural Development* 18(7): 101.
- Mathialagan P. (1995) *Animal Husbandry Extension Education Manual*. ICAR, New Delhi. Vol.1, 121-130.
- Miah M N. (1996) Role of women in poultry production for rural poverty alleviation in

Bangladesh. *XX World Poultry congress*. pp. 303-307, New Delhi.

Mohanraj R and Manivannan L. (2012) A study on satisfaction level and problems faced by poultry farm owners with special reference to Namakkal district, Tamil Nadu. *International Journal of Management, IT and Engineering* 2 (3): 1-34.

Pandey R K, Bhardwaj S P, Mahajan V K and Nirman K P S. (1996) Economic study of poultry production in India. *XX World's Poultry Congress Proceedings* Vol. III: pp.527-534, New Delhi.

Quisumbing A R and McClafferty B. (2006) *Using gender research in practice*. International Food Policy Research Institute, Washington D.C.

Raha S K. (2009) Export possibilities of broiler from Bangladesh: some issues. *Economics Affairs* 54(3 and 4): 124-130.

Raj S M, Bandyopadhyaya A K and Ahmad S K Z.

(1999) Social benefits to the rural women through poultry farming. *Journal of Extension Education* 10(2): 2425-2428.

Rarotra J R, Gupta G C and Hussain G. (1984) Poultry Keeping: A boon for Ladhakh. *Poultry Advisor* 27 (12): 69-71.

Saha D. (2003) *Status of Rural Poultry Production in North 24 Parganas district of West Bengal*. M.V.Sc thesis, Division of extension education, IVRI, Izatnagar.

Sasaki M. (1996) Policies and strategies of rural poultry development with particular reference to asian developing countries. *XX World Poultry Congress*. pp. 283-289, New Delhi.

Tadelle D, Million T, Alemu Y and Peters K J. (2003) Village chicken production systems in Ethiopia: flock characteristics and performance. *Livestock Research for Rural Development* 15: (1).