

INTEGRATION OF INNOVATIONS IN BACKYARD POULTRY REARING FOR EMPOWERING RURAL WOMEN

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Abstract: The present study analyses the impact of a DBT scheme on the productivity of the backyard poultry, knowledge improvement of women respondents on poultry rearing and their perception of improved empowerment. Two hindered beneficiaries were personally interviewed using a questionnaire. It was found that there is considerable increase in hatching per cent, egg yield, and body weight gain in kg/year (Female and male). Study on the knowledge level of the beneficiaries on the selected backyard poultry production technologies revealed that the increase in knowledge level ranges from 79.75 per cent to 22.66 per cent. The productivity performance of backyard poultry Knowledge level of beneficiaries on backyard poultry production technology and perception on empowerment have clearly shown that the project had a significant impact towards socio-economic development of the rural women folk.

Keywords: Women empowerment, Perception, Knowledge, Rural women, Backyard poultry.

Introduction

The World Bank has suggested that empowerment of women should be a key aspect of social development programs (World Bank, 2001). UNDP has identified social mobilization and collective agencies are the crucial routes imperative for empowerment. One strategy which has been found to be promising is participatory institution building in the self-help groups, often coupled with savings and micro credit loans (ESCAP, 2002). Women empowerment is an active, multidimensional process which enables women to realize their full potential and power in all spheres of life (Renganathan, 2004). Self-help group (SHG) approach is a silent revolution promoting women development and empowerment. This SHG model has been identified as a potential pathway to alleviating poverty.

Backyard poultry is an important livelihood component of rural poor providing valuable animal protein through egg and meat and aid in economic improvement by providing subsidiary income. Market oriented backyard poultry enterprises are being recognized as a

stepping stone for the poorest households enabling them to take the first step towards breaking out of the vicious circle of poverty and deprivation. There is also growing evidence to demonstrate the role of rural family poultry in enhancing the food and nutrition security of the poorest households, reducing the livelihood vulnerability and insecurity, and promotion of gender equity (Ahuja and Sen, 2007; Otte, 2006).

The funds provided by the Department of Biotechnology has utilized for poverty eradication programme for the rural women folk by supplying *desi* poultry birds, inputs and offered training to strengthen their livelihood and economic improvement. Eight weeks old *desi* bird in the ratio of 2:1 was supplied to the beneficiaries after deworming and vaccination against Ranikhet disease.

Trained on recommended practices of backyard poultry viz., selection of eggs, pre-incubation storage method of eggs, candling of eggs, vaccination and deworming of birds was given. The selected villages were visited regularly as follow-up visits for providing technical advice.

Methodology

The study was conducted in Namakkal district of Tamil Nadu with 200 women beneficiaries of the scheme. For the present study the impact was measured based on the productivity of the backyard poultry, knowledge improvement of women respondents on poultry rearing and their perception of improved empowerment. A before-after research design was followed for the study. A teacher made knowledge test was developed in a simple *vernacular* language and the same was employed thrice viz., before training, after training and 30 days after training to assess their retention of knowledge learned during the training. The enhancement in the knowledge level is the difference between knowledge retention score and the pre-training knowledge score. A semi-structured interview schedule was prepared and employed for primary data collection about the profile characteristics of respondents and their perception on empowerment. Descriptive statistics were employed to interpret the findings.

Results and Discussion

Profile characteristics of the respondents

The profile characteristics of the respondents presented in Table-1 indicate that 55 per cent and 35 per cent of the respondents were respectively belonged to young and middle age group. Majority of the respondents had relatively better level of education probably attributed to the measures taken by the government towards female education and linking it with other welfare benefits of the government of Tamil Nadu. Around three fourth (73%) of the respondents lived in nuclear families which is the prevalent system of living in the present

day villages. More than three fourth (79%) of the respondents were land holders. Average animal husbandry holding of the respondents were two cows and two buffaloes. Average flock size of sheep, goat and poultry were respectively 10, 6 and 10. The average per capita family consumption of egg and chicken were respectively 365 and 24 Kg. Marketing and sale egg and meat were through middle man was 70 per cent and that of direct sale to the consumer at farm /weekly sandy was 30 per cent.

Table 1: Profile of the back yard poultry women beneficiaries (N=200)

S. No.	Profile Characteristics	Responses in %
1	Age	Young - 55 Middle - 35 Old - 10
2	Educational status	Primary -25 Secondary -60 College-15
3	Family system	Nuclear family-73 Joint family- 27
4	Land holding	Land owners - 79, Land less - 21
5	Average cattle holding/family	Cow - 2 animals Buffalo -2 animals
6	Average flock size of sheep goat and poultry	Sheep-10 animals Goat -6 animals Poultry -10 birds
7	Average Family consumption of egg	1 egg /day
8	Marketing and sale	Through middle man - 70 Directly to the consumer at farm /weekly sandy – 30
9	Chicken consumption (Family average)	2 Kg /month

Effectiveness of the intervention strategies

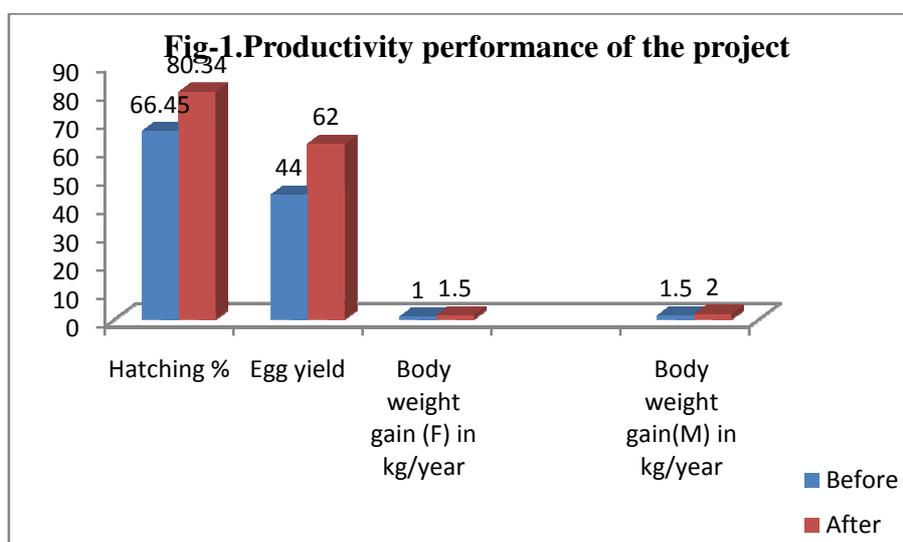
Productivity performance of backyard poultry

A unit of one male and two female desi chickens (8 weeks old) was supplied to the beneficiaries after deworming and vaccination against Ranikhet disease. The beneficiaries were trained on selection of eggs, pre-incubation storage method of eggs, candling of eggs, vaccination and deworming of birds. On enquiry at the beginning of the scheme, only 49 farmers had prior exposure of rearing desi birds out of 200 women beneficiaries. Among 49 farmers only 38 farmers had the experience of hatching eggs. The before project hatchability percentage reported by them was 66.45 ± 1.78 . At the end of the scheme, out of 200

beneficiaries, 71 per cent of them were successful in rearing poultry and hatching eggs. The remaining 29 per cent of the beneficiaries were unable to maintain the birds due to heavy rain and floods, predators, road accident, stoning and stolen by others. The result revealed that hatchability percentage was increased to 80.34 ± 1.26 , which was highly significant compared to the pre-intervention hatchability (Table-2/ Fig-1). Similarly the average body weight gain for female (F) and male (M) were 1.5 kg and 2 kg respectively. The average egg yield increase compared to the pre-project was also substantial from 44 to 62. Similar findings were reported by Kumari (2009).

Table 2. Productivity indicators of backyard poultry

Sl.No	Impact indicator	Before project	After the project
1	Hatching %	66.45 ± 1.78	80.34 ± 1.26
2	Egg yield	44	62
3	Body weight gain in kg/year (Female)	1.0	1.5
4	Body weight gain in kg/year (Male)	1.5	2.0



Knowledge level of beneficiaries on backyard poultry production technology

The pre, post and retention Knowledge level of beneficiaries on backyard poultry production technology is given in Table-3. Among the practices chosen the respondents had enhanced higher knowledge level respectively for least cost method of egg storage (79.75%) and deworming (71.75%). The respondents showed more than 60 per cent of knowledge gain in respect of termite production and feeding technique (64%) and increasing hatchability of eggs

(61.50%) respectively. The respondents had 30-40 per cent of knowledge gain in prevention of Ranikhet disease through vaccine, protecting chicks from predators, candling of eggs, entrepreneurship and marketing of eggs and birds, age of maturity of disease fowls and symptoms of Ranikhet disease (22.66%).

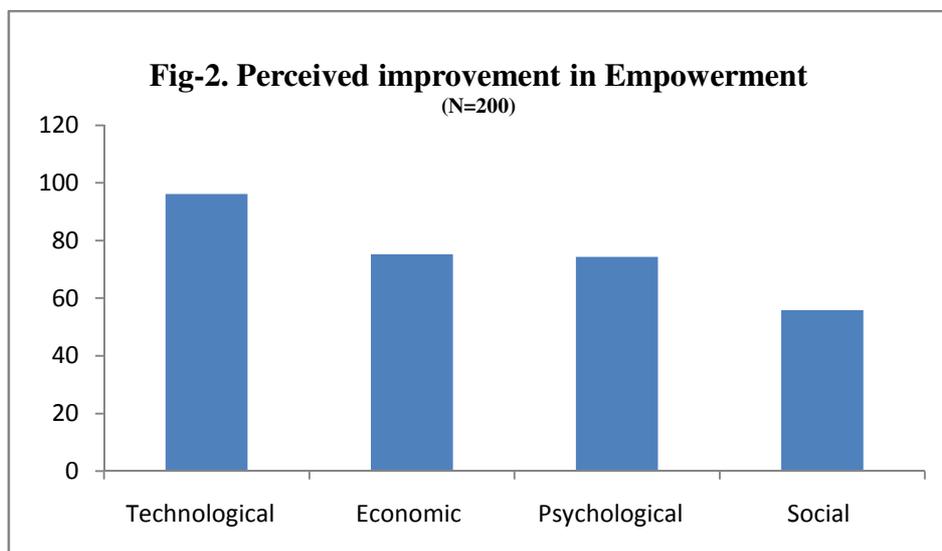
Table 3. Knowledge level of the beneficiaries on the selected backyard poultry production technologies (N=200)

S. No	Technique/Practice	Pre-exposure (%)	Post-exposure (%)	Retention (%)	Knowledge gain in %
1.	Least cost method of egg storage	5.00	91.5	84.75	79.75
2.	Deworming	4.50	83.00	76.25	71.75
3.	Termite production and feeding technique	8.00	80.00	72.00	64.00
4.	Increasing hatchability of eggs	15.00	83.12	76.5	61.50
5.	Prevention of Ranikhet disease through vaccine	37.25	92.37	82.37	45.12
6.	Protecting chicks from predators	24.15	75.00	66.75	42.60
7.	Candling of eggs	38.10	88.8	79.8	41.70
8.	Entrepreneurship and marketing of eggs and birds	19.85	90.35	56.57	36.72
9.	Age of maturity of disease fowls	36.16	77.41	69.41	33.25
10.	Symptoms of Ranikhet disease	7.00	52.00	29.66	22.66

Respondent's perception on empowerment

The respondents were asked to give their perception on their enhanced empowerment in terms of technological, economic, psychological and social sphere and the findings are presented in the fig-2. The results indicated that 96.22 per cent, 75.20 per cent, 74.40 per cent and 55.83 per cent of respondents felt that the project had given them empowerment in the order of technological, economic, psychological and social empowerment respectively. Technological empowerment was achieved by adoption of low cost technologies in backyard poultry farming like feeding, diseases prevention, egg storage candling and hatching. Economic empowerment was attained through augmenting income, initiating savings habit, freedom to spend money and effective utilization of income. Psychological empowerment through more positive and dynamic in approach in the form of more self-confidence, more

risk taking highly motivated and more decisive. Social empowerment by wider social contact, farm and home problem solving, planning and management of household affairs, more social participation, leadership development and keen interest in public issues.



The findings on productivity performance of backyard poultry Knowledge level of beneficiaries on backyard poultry production technology and perception on empowerment have clearly shown that the project had a significant impact towards socio-economic development of the rural women folk.

Conclusion

The findings of the study on productivity performance of backyard poultry Knowledge level of beneficiaries on backyard poultry production technology and perception on empowerment have clearly shown that the project had a significant impact towards socio-economic development of the rural women folk. It is concluded that the scheme has created economic impact in terms of higher income. The technical skills have empowered them to adopt the various technologies in future also backyard poultry rearing. More such attempts are to be undertaken in the future in other areas also for the ultimate progress and development of the Indian Society as well.

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