

Livelihood improvement of rural women through backyard poultry

Backyard poultry (BYP) keeping is an important activity for poor rural women as it generates cash income and provides employment opportunities, while increasing production of valuable foods (meat and eggs) that improve household nutrition. However, operational constraints such as non-availability of quality poultry birds, inputs, lack of scientific knowledge about rearing and disease control limit the adoption of BYP as an entrepreneurial activity among resource poor farmwomen. Action research for technology refinement and gender mainstreaming through backyard poultry was carried at DRWA for livelihood improvement of rural women in Mahinsa and Jaypur villages of Puri district in Odisha.

Two models of poultry rearing were implemented depending on the resource availability with the rural women/women SHG. Poultry birds of breed RIR, CARI Debendra, Vanaraja, Grampriya, Kadaknath and Aseel were provided to the women. In the first model, day old chicks were provided to the groups of women who had prior experience of poultry rearing. The poultry shed was constructed by the women from locally available materials. Women reared the chicks under confinement with provision of feed and water for a month along with 1-2 hours of scavenging in the backyard. The chicks were vaccinated against all endemic diseases. At 4 - 5 weeks of age, the chicks were distributed among the women members of the SHG. The birds were allowed free scavenging from morning to till evening. Broken rice, rice bran, ground maize, kitchen waste, etc were offered to chicks during morning and evening when birds returned from scavenging.

In other model where women were not aware of the rearing practices, but were very enthusiastic to take up the poultry keeping, training was provided to them and thereafter, 4-5 weeks old chicks were provided to them. The project staff regularly visited the door steps of women to monitor the performance and offered technical support such as feeding, health care, etc.



Rearing systems adopted by women



The poultry were mostly kept in confinement in bamboo baskets/cardboard boxes during night to prevent predation. In most of the cases litter material was not provided except in few places unseeded paddy /paddy husk was provided during laying period. Bamboo basket or broken earthen pot was provided for egg laying purpose. The birds started laying eggs from 21 weeks onwards and they laid eggs from 21 weeks to 18 months. For egg laying bamboo basket/earthen pot were placed in the house. When the egg laying stopped the old stock were replaced with a new poultry birds. Supplementary feeding to poultry birds were provided only by few women for 1 to 2 weeks during the initial brooding period. Birds met their feed requirement mostly by scavenging. Kitchen wastes, broken rice (mostly available from PDS), rice bran were usually offered to the birds once or twice

during the day time. To increase the immunity in poultry birds, women used their ITK in which turmeric, ripened chillies and garlic were mixed with broken rice and fed for 3 to 4 days. For controlling fungal infections, mustard paste mixed with lime was put on the wound. They also kept lime in one corner of the shed against fungal diseases. Most of the women in Mahinsa village of Puri district, employed an innovative method of feeding their birds by using locally available forage resources (Amranthus), trash fishes and broken rice which were boiled together and fed twice daily to the birds. Similarly, in Jaipur village, women grew Azolla in water trough and supplemented the birds either fresh or after drying. They also feed white ant to their birds. The performance of birds reared under backyard production system by women /SHG are given in table 1. Most of the birds laid thrice a year and some birds laid four times a year. The eggs produced were used at home for consumption and to meet socio-cultural demands and few eggs were kept for hatching by women. It was



also found that smaller the number of birds kept, the larger were the number of eggs produced per birds in a year. BYP gave high return, as the investment requirement (feed, medicine, etc.) was quite low. It provided about Rs. 2000 per unit (range: Rs. 1500-3200) of 6-8 birds over a period of 5 months. Most of the women preferred Vanaraja and CARI Devendra for backyard system, as both birds and eggs fetch higher price as compared to the other birds.

Impact of BYP on women empowerment

Impact of BYP on women empowerment was studied through PRA and focused group discussion which is given below:

(i) Contribution to household Income: The BYP keeping increased average net income per household. The monthly income from poultry was Rs. 250-300/household. If home consumption of poultry meat and eggs were to be accounted, the net income per annum per household ranged from Rs. 3500/- to Rs.10,000/- per year. In Mahinsa village women sold their birds during festivals which gave them higher prices and they also developed good bargaining skills. Rearing of improved bird encouraged women to become more market savvy and they showed entrepreneurial skills in selling their produce when they fetched higher price. Women used the income to purchase toys and clothes for children during festivals, pay children's educational expenditures, medical emergencies, overcoming food shortages among others. Irrespective of the direct contribution to household income, BYP was recognized as an important contributor to overall livelihood security of women.

(ii) Food and nutrition Security: BYP was mostly preferred by marginal, landless or schedule castes/ backward castes women. Most of these people worked as daily wage labour on agricultural land or construction sites at Bhubaneswar and they often face food insecurity. Rearing improved poultry birds enhanced their food security and household nutrition. About 30 per cent women reported that birds were reared for consumption during festivals and as a source of nutritious food. Women ensured that eggs and to some extent meat became an integral part of their family's diet. Rearing improved bird served as an asset which was cherished and used as food to tide over the critical periods.

(iii) Gender empowerment: The initiative had a remarkable impact on women's livelihoods. Since rural women took care of the birds, they also retained the earnings from poultry keeping. Thus, rearing the bird was an enabling factor in women's empowerment which varied based on their capabilities to take a diverse set of decisions related to management. Women rearing poultry dealt with various people while purchasing and marketing birds or eggs, they slowly gained confidence and came out of isolation. Over a period of time entrepreneur skills improved and they were able to take decisions on their own. They were also able to create a space for themselves within their household. In both Jaipur and Mahinsa villages of Orissa, women have formed informal groups to meet and discuss issues resulting in knowledge sharing and gaining strength from group participation. They are now approaching government departments through village panchayat for preventive health care services and other issues related to their welfare.

(iv) Social aspects: Although income in monetary terms from backyard poultry was not so high, yet women continued to keep them because it empowers them through hard cash. Other functions like security, status, and asset were valued as much as the economic returns. Money saved from the sale of birds was useful for festive occasions. Birds also provided a social status to the poor and landless women. Possession of a big size bird was considered a matter of pride. Bird was sold for procuring rations for home. The amount received from sale of few eggs/birds might be small but it created confidence in poor woman. Increasing women's incomes through improved poultry production thus increased their social status. Now, BYP is no more considered a low prestige occupation fit for only weaker sections of the society but it has also become full time occupation for many in rural households.

DRWA model is worthy of replication because it showed that women with minimum additional labour can maintain small poultry units, that could enhance their livelihood, provide economic returns as well as facilitate empowerment. Where women received training in husbandry practices and gained access to poultry health services, BYP keeping was more successful. However, for effective replication there are still some issues that need to be addressed. The basic minimum veterinary services should be made available locally. There is also a need to have an enabling environment that will provide opportunities and make it possible to develop backyard poultry as sustainable enterprise for women SHG at the village level which will facilitate easy access to support services (vaccination, training, marketing, credit, etc) for the economic empowerment of the rural women.

Table 1 : Performance of backyard poultry

No. of Birds	: 6-10
Breed of Birds	: Gramapriya, Vanaraja, RIR, CARI Debendra
Chick Mortality (%)	: 24.3
Age of laying 1st egg (weeks)	: 18-21
Eggs laid / bird (No.)	: 135
No. of Eggs laid / bird / clutch	: 15-18
Adult weight of birds(kg)	
Hen	: 2.9-3.5
Cock	: 3.2-4.0
Income/ Bird (Rs.) over 5 months	: 365