

High Income Source in Village: Backyard Poultry

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Poultry production is an important component of livestock and agriculture sector in India and contributed about 4.99 MMT of chicken meat and 138.38 billion eggs to the food basket of the country during 2022-23. In economic terms, poultry added about Rs 2.3 lakh crores to the national coffers in 2022-23. All this highlights the significant role played by poultry sector in the development of livestock economy.

Poultry sector in India is broadly divided into two sub-sectors - a highly organized commercial sector and an unorganized backyard sector. Backyard poultry constituted about 37.22 percent of total poultry population and produced 20.2 billion eggs (14.6%) in 2022-23. Though the contribution of backyard sector to the total produce is meager, it has been growing at an unprecedented rate (45.7%) when compared to commercial poultry (4.5%). Major factors responsible for this include increased consumer awareness regarding organic or natural products, availability and easy accessibility of improved backyard varieties, rising income from backyard poultry rearing due to advances in processing technology and improvements along marketing chain. Besides, backyard poultry plays a major role in livelihood, food and nutritional security, employment generation and women empowerment.

Backyard poultry system is a low-input or no-input business characterized by scavenging or free-range rearing with little supplementary feeding and arrangement for an indigenous night shelter. The other salient features of this system are poor productivity of birds, natural hatching of chicks, local marketing and almost no health care practices. Since the birds are reared on household wastes using minimal input and comparatively lesser space, it has lower risk when compared to commercial poultry and other livestock production systems. Furthermore, rearing of birds in natural stress-free conditions without the use of chemicals or antibiotics fetches a higher demand for backyard eggs and meat in urban market. These birds sustain by consuming insects in the backyards which is a healthy protein source on one

hand and helps to control insect pests at the same time. Backyard birds generally lay brown eggs which are perceived to be nutritionally better than white eggs by consumers.

There are two types of backyard birds: Native/local and Improved varieties. Improved birds being 2-3 times more productive than the native birds, due to which they are highly preferred by the farmers. Different organizations in the country like Krishi Vigyan Kendra (KVK), Veterinary College, State Animal Husbandry Department, Central Poultry Development Organization (CPDO), ICAR organizations especially, ICAR-Directorate of Poultry Research (DPR), Rajendranagar, Hyderabad and ICAR-Central Avian Research Institute (CARI), Izatnagar, Bareilly cater to the demand of improved variety birds. Depending on their requirements, farmers can procure fertile eggs or day-old chicks or even grown-up birds at competitive rates. Besides, these organizations also conduct routine training programmes and provide technical information to the stakeholders, as and when required. At the same time, institutes like ICAR-DPR and ICAR-CARI are also working to improve the native chicken breeds to increase their production performance. Once this is done, the native/local birds will fetch even a higher price than the improved backyard varieties. Also, there are several government schemes where improved birds are distributed free of cost in poor and backward areas to uplift the socio-economic condition of the rural populace.

Selection of birds

Farmers usually select backyard poultry germplasm based on the production performance of the birds, market demand and income. When considering native/local birds, there are 19 recognized breeds of chicken in India which can be listed along with their home tract as: *Ankaleshwar* - Gujarat; *Aseel* - Chhattisgarh, Odisha, Andhra Pradesh; *Busra* - Gujarat and Maharashtra; *Chittagong* - Meghalaya and Tripura; *Danki* - Andhra Pradesh; *Daothigir* - Assam; *Chagus* - Andhra Pradesh and Karnataka; *Harringhata Black* - West Bengal; *Kadakhnath* - Madhya Pradesh;

Kalasthi - Andhra Pradesh; *Kashmir Favorolla* - Jammu and Kashmir; *Miri* - Assam; *Nicobari* - Andaman and Nicobar; *Punjab Brown* - Punjab and Haryana; *Tellichery* - Kerala; *Mewari* - Rajasthan; *Kaunayen* -

Other than chicken, Duck, Turkey, Geese, Pheasants, Quails, Guinea fowl and other birds are also made available to farmers for rearing based on market demand.



Manipur; *Hansli* - Odisha and *Uttara* - Uttarakhand. These native breeds have some unique characteristics like fighting abilities of *Aseel*, higher egg production of *Nicobari* fowl and nutritional properties of *Kadaknath* meat. Due to this reason, they are in high demand throughout the country (*Kadaknath*) or at their home tracts particularly (*Aseel*). Besides the native birds, there are many improved varieties for backyard poultry available in our country. These have been developed by different organizations over a period of time with a view to improve the production performance of the birds. Most of these improved varieties have been developed by selective breeding followed by crossing to introduce desired characters into the birds. Some of the improved varieties developed by ICAR-DPR and their AICRP centres can be enlisted as - *Vanaraja*, *Gramapriya*, *Srinidhi*, *Krishibro*, *Krishilayer*, *Janapriya*, *Vanashree*, *Narmadanidhi*, *Himsamridhi*, *Kamrupa*, *Jharsim*, *Pratapdhan*, *Athulya*. Some of these varieties have a pan-India presence like *Vanaraja*, *Gramapriya* while others are state or region-specific like *Narmadanidhi* (Madhya Pradesh) and *Himsamridhi* (Himachal Pradesh). Other improved varieties include *CARI-Nirbheek*, *CARI-Hitcari*, *CARI-Upkari*, *CARI-Sonali Layer*, *CARI-Priya Layer*, *CARI-Shyama*, *CARI-Debendra*, *CARIBRO Vishal*, *CARIBRO Dhanaraj*, *CARIBRO Tropicana*, *CARIBRO Mrityunjay* etc. developed by ICAR-CARI and *Kalinga Brown*, *Kaveri*, *Aseel Cross* and *Chabro* - developed by CPDOs. Besides these, there are some other varieties developed by State Universities like *Giriraja*, *Swarnadhara*, *Nandanam* and *Rajashree* etc.

Rearing of birds

Birds can be reared in different ways: (i) scavenging or free range, (ii) free range with some feed supplements and (iii) complete intensive feeding. In scavenging or free-range system, birds are allowed to feed upon naturally available feed base like household wastes, insects and green fodder while in free range rearing with supplemental feeding, feeding with cereal grains and oilseed cakes is provided in addition to scavenging on insects, worms etc. In completely intensive feeding (which is rarely seen), birds are provided with the complete nutrient feed formulations. Based on space availability, budget and market accessibility, farmers can opt for any of the rearing method. Brooding, healthcare and other management practices require extra attention and care which can be met through training.

Marketing of Backyard Poultry

The products of backyard poultry are in great demand among consumers due to increased awareness and ethical concerns. Markets are flooded with a diverse range of products like cage-free eggs, stress-free eggs, organic eggs etc., which sell like hot cakes due to high demand among urban consumers. For market accessibility of backyard produce, farmers can choose different marketing channels like local market, community-based approaches like Self Help Groups (SHG), Farmer Producer Organizations (FPO) and poultry cooperatives without the involvement of middlemen. Nowadays, many companies are following contract farming models to procure rural produce at farmers' door step. This offers exciting opportunities for rural produce and can greatly

improve the economic remuneration for the rearers. However, it is important to keep in mind that birds should be sold on net-weight basis rather than flock selling to derive maximum dividends.

Government support

In order to enquire about the available government schemes related to poultry rearing in their area, farmers can visit their nearby veterinary/ animal Husbandry office. They can also contact Krishi Vigyan Kendra (KVK) and National Bank for Agriculture and Rural Development (NABARD) office for the ongoing schemes. NABARD offers several financial credit services for starting poultry ventures in rural and backward areas which can be availed of by the farmers. MUDRA loan and Kisan Credit Card schemes are other available financial options for backyard

poultry farming. Also, National Livestock Mission (NLM) scheme of the central government provides financial support to poultry farmers by giving subsidy on capital.

Poultry farming is a minimum investment enterprise amongst other livestock enterprises and gives higher returns in shorter duration of time. It helps in strengthening nutritional and food security of the family besides improving employment and income generation opportunities and fostering gender equality. Backyard poultry farming has the potential to revolutionize the poultry sector of the country by alleviating rural poverty, providing protein and nutritional enrichment and promoting socio-economic upliftment.

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