Reviving the Indigenous Poultry Bird - Kadaknath

Summary
Poor and marginalised rural households in India rely on low-cost, backyard poultry rearing to supplement and enhance their livelihoods. Most of these households traditionally reared Desi and/or indigenous breeds. Over a period of time, Desi and indigenous poultry were neglected in favour of exotic poultry breeds. These exotic breeds may have high production characteristics but they also need high inputs, both in terms of feed and management.

The general perception that indigenous birds are not an economically viable livelihood option is now being questioned by the evidence available from various sources. India has 20 recognised indigenous poultry breeds, which have been sustained so far through community efforts. The government of Madhya Pradesh has taken initiatives to promote and introduce, in new areas, an indigenous backyard poultry breed called Kadaknath, both for bio-diversity conservation and livelihood generation. The aim is to enable tribal poultry rearers to reap financial benefits as well as maintain their poultry heritage.

These initiatives helped to achieve the following:
• Encouraged a number of households to take up rearing of Kadaknath as backyard poultry.
• Increased the consumption of chicken meat, a good protein supplement.
• Provided supplementary income from sale of eggs and birds to meet the immediate needs of the family.

The Context
Kadaknath is a native breed of poultry, which inhabits Jhabua and Dhar districts in western Madhya Pradesh. Kadaknath has been reared by tribals over a long period of time and its unique breed characteristics have been established through many generations of selection and fixation of genes. It tolerates the stress of extreme climatic conditions of heat and cold and thrives very well with minimal management. It exhibits an appreciable degree of resistance to diseases compared to other exotic breeds of fowl (Thakur et al, 2006). Its dark meat is considered a delicacy and is also believed to have medicinal qualities, much sought after by tribal communities.

Characteristics of Kadaknath Poultry Breed:
• Black colour meat
• Blue-black plumage
• Black-hued internal organs
• Body weight at 20 weeks: 920 gm
• Body weight of adult cockerel: 1.5–2 kg
• Body weight of adult hen: 1–1.5 kg
• Sexual maturity at: 180 days
• Average annual egg production: 105
• Egg weight at 40 weeks: 49 gm

This brief is based on Good Practice Note, ‘SA PPLPP (2009) Code: INGP04, “Reviving the Indigenous Poultry Breed - Kadaknath: Enhancing Livelihoods of Tribals through Niche Market Opportunities”’, Potential Good Practice Note, Delhi, India.
The Problem

Exotic birds such as Rhode Island Red and Austrolorp were introduced in those areas where the Kadaknath thrived, through various rural development programmes. This led to indiscriminate breeding, resulting in the loss of pure Kadaknath birds. Policies that encouraged the rearing of high yielding genetic stock as well as persistent outbreaks of Ranikhet disease have brought Kadaknath to the verge of extinction. At present, pure Kadaknath birds can be found only in Jhabua district and in the two government-owned poultry farms (in Jhabua and in Bhopal).

The Good Practice

In 1982, the Animal Husbandry Department of Madhya Pradesh established a breeding farm and hatchery in Jhabua district, with the objective of conserving and propagating Kadaknath in and around the district. Later, the Madhya Pradesh Rural Livelihoods Project (MPRLP) joined hands with Bhartiya Agro Industries Foundation (BAIF) to promote Kadaknath in areas other than Jhabua. It was decided to select a neighbouring district, Barwani, which has similar agro-climatic conditions.

About the area

Barwani District is situated in western Madhya Pradesh and bordering Gujarat. Sixty-seven per cent of the total population of the district is tribal; the main tribes are Barela, Bhilala, Pataliya and Bhil. Almost all the tribal households rear backyard indigenous poultry, and this activity is the domain of women. Poultry influences several areas of a tribal household, ranging from economic and nutritional security to socio-cultural aspects.

The tribals of Hirakray village in Barwani district were comfortable with rearing poultry and, therefore, chose it over the other livelihood options proposed by MPRLP. The initiative assisted these households in their efforts to rear Kadaknath birds as a livelihood improvement activity. Initially, units of 100 Kadaknath chicks were given to the beneficiaries for the rearer to raise the birds to the weight of 1 kg in 6 months and to market the chicken thereafter.

Management systems followed by tribal farmers rearing Kadaknath birds

Both Kadaknath and Desi birds scavenge around the farm and are offered a handful of grain once or twice a day. A number of tribal farmers have adopted the traditional, free-range, scavenging system because Kadaknath thrives outdoors and feed costs are also reduced when they are allowed to scavenge. The most frequently used shelter comprises a large, woven bamboo basket. Sometimes, Kadaknath birds are housed in wooden boxes or in store rooms within the home.

In order to reduce losses due to disease outbreaks, vaccines were provided to the Kadaknath poultry keepers by the Livestock Service Providers (LSPs) or the Gopals (village health workers). De-worming was carried out regularly because parasitic infestations (including coccidiosis) are suspected to be the second major cause of losses after Ranikhet disease in this area.

Production characteristics of Kadaknath birds

Kadaknath hens start laying eggs from 6 months onwards. Eggs are laid in two to three clutches in a year, with 25 to 30 eggs per clutch; thus, 80 to 90 eggs are produced annually. Hens of this breed show poor brooding ability and the eggs are, therefore, kept under Desi hens for hatching—a traditional practice followed by tribals in this area.

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2Store rooms are extra rooms—kuccha (temporary) or pucca (permanent), where the agri-implements, grains, hay, etc., are kept.
A bamboo basket is lined with crop residue of paddy/wheat or dried grass to provide a cushion for the eggs to be hatched. Eggs of both *Desi* and Kadaknath birds are placed on this cushion to be hatched by a broody *Desi* hen. This traditional technique is being encouraged by the PFT to propagate Kadaknath through natural means and ensure availability of Kadaknath chicks in the villages.

**Marketing and economics of rearing Kadaknath**

The Kadaknath bird commands an elevated position since a year-old Kadaknath bird fetches Rs 250 to 300 (as compared to Rs 150 for a *Desi* bird) and the eggs are sold at Rs 4 to 5 each, depending on the season and the location. A case study, based on the experience of a pioneer farmer of Hirakray village, shows that a Kadaknath unit of 100 birds yields a net profit of about Rs 15,160 annually. The households never had to take either the birds or the eggs to market for sale because the products were sold from home. This confirms the high demand for both meat and eggs. The meat of a Kadaknath bird is softer than that of a *Desi* bird, a characteristic preferred by local consumers.

**Institutional linkages**

Figure 1 illustrates the various institutional linkages, stakeholders and the roles played by each during the project implementation phase.
Learning
The experience of promoting the Kadaknath indigenous poultry breed resulted in the following learnings:

· The traditional backyard scavenging system of poultry rearing is an integral part of the livelihood systems of tribal households. The introduction of expensive poultry sheds for indigenous birds and commercial feed are economically unviable and, therefore, not encouraged, particularly when these breeds have a scavenging base and a poor feed-conversion ratio.

· The use of locally available material, for instance, bamboo, wood and palm leaves as roof material for building night shelters for poultry is more appropriate and inexpensive.

· Easy market access, availability of health services and timely advice to households involved in Kadaknath rearing are the main factors responsible for the success of the initiative. There is, therefore, a need to ensure services (health control, advice and marketing) through trained local youth when planning the scaling up of the rearing of Kadaknath birds.

· A major constraint observed in the wider propagation of Kadaknath is the non-availability of chicks, in view of the poor brooding habit of hens. There is, therefore, need to develop mixed units of Kadaknath and Desi birds, to ensure the supply of chicks.

References

Suggested Citation: SA PPLPP (2009) Code: INGP04, “Reviving the Indigenous Poultry Breed -Kadaknath”. Potential Good Practice Brief, Delhi, India
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