

Recent evidence from India suggests that rearing indigenous poultry rather than focusing on commercial breeds that give a higher yield can significantly contribute to the self-sufficiency and cultural wealth of rural communities – as well as boosting their income.

Text Mamta Dhawan, Lucy Maarse and Ugo Pica-Ciamarra

# Unpacking a poultry myth



Over the last decade, high demand has caused the poultry sector to expand, globalise and consolidate, turning it into possibly the fastest growing of all livestock sectors.

In India it grew by nearly 10 percent between 1997 and 2002 and broiler meat is currently sold for half the price of lentils, traditionally considered the poor's main source of protein. In recent years, however, NGOs and governments have supported the introduction of "improved" poultry breeds in rural areas (commercial hybrids produced from two or more different strains). If these are reared under the right conditions, they give a higher yield in terms of both eggs and meat than indigenous breeds. But is that necessarily always the right way to go?

### Indigenous breeds: the benefits

Traditionally, farmers in rural areas tend to prefer indigenous birds to these commercial hybrids. Indigenous breeds are self-propagating; they contribute to poultry diversity and cultural heritage and produce tasty meat and eggs. They are also well adapted to the local climate and can survive, produce and reproduce through scavenging. Because of their local origin they are less prone to disease or predator attacks, and their cultural and sporting values secure additional income. Even their coloured feathers can bring in additional cash. But since commercial strains have become popular and heavily supported by state and NGOs, the percentage of indigenous birds reared in India has dropped to just 10 percent of the total over the last 30 years (absolute numbers have remained relatively stable). Yet, meat and eggs of indigenous birds can meet the demand in a growing niche market.

**High expectations** So why have governments and NGOs supported the introduction of improved poultry breeds in rural areas? For the masses of deprived, marginal and landless farmers in these areas, poultry serves as both a safety net and a means to acquire assets and move out of poverty. If hybrids are reared under the right husbandry conditions, they give a higher yield in terms of both eggs and meat than indigenous breeds, but they do not hatch chicks. Experience has shown, however, that without the adequate infrastructure it is rarely cost-effective for small-scale farmers to raise improved birds. Two practices in rural India show how the introduction of simple, low-cost methods can easily enhance the contributions that indigenous birds make to farmers' livelihoods, without having to invest in costly new institutional and market frameworks.

**Reviving the Aseel breed** The Aseel is one of the most widespread indigenous chicken breeds in Andhra Pradesh, India, and has an ancestry steeped in antiquity. Traditionally, they are kept for their cock-fighting abilities and their relevance in social and religious functions – and that's in addition to the superior taste and texture of their meat. They are usually kept by women and sell at prices 50 to 100 percent higher per kg/live weight than broilers. However, in the early 1990s infectious diseases like Newcastle disease (a highly contagious viral disease, affects poultry of all ages and can severely threaten farmers' livelihoods) became widespread among the breed and started to threaten its gene pool. State policies to introduce non-local breeds failed and in 1994 a consortium of NGOs led by the Indian organisation Anthra looked into ways of promoting the on-site conservation of Aseel poultry. They studied backyard production methods employed by some 2,000 households in 24 villages in East Godavari and developed improvements based on traditional technologies and institutions that were already in place. These included training local animal-health workers to provide basic, yet critical services to poultry farmers, and revitalising the traditional *vaata* sharing system (see box) to increase poultry ownership. The female poultry farmers found that reverting to growing pulses and traditional staples such as millet and paddy instead of cash crops not only increased household food security, but also offered a rich scavenging base for the poultry, with a positive effect on their income. This change in cropping enabled each household to maintain a flock of up to 25 birds.

## The Aseel revival: the *vaata* sharing system

In 2000, ten women in Noogamamidi, Andhra Pradesh, were each given two Aseel hens, the rest of the group were given two Aseel cocks. They collectively returned 25 five-month-old chicks, which were then passed on to other women in the village who did not have any poultry. A year later 55 chicks had been produced, and, since there were no further takers in the village, the group decided to sell the birds, for which they received 2,890 rupees (US\$ 75). In 2003, eight birds were passed on to eight women in another village, and three years later more birds were given to women in two other villages. Over the past eight years, 74 women in six villages have benefited from the scheme.

And, as the women's groups grew in numbers and strength, they managed to get the government's Animal Husbandry Department to vaccinate their birds free of charge. As a result of these local efforts, mortality rates in the Aseel population shrank from 70 percent to 25 percent between 1996 and 2008 and, over the same period, the net income from one bird, including the value of both eggs and offspring, rose from 1,800 to 5,750 rupees (US\$ 40 to US\$ 130).

### Re-inventing the Kadaknath

Similarly, efforts focused on the Kadaknath – another indigenous breed of chicken found largely in the Jhabua district of Madhya Pradesh – have paid off. The dark-coloured meat of the Kadaknath bird is considered a delicacy and consumers are willing to pay a premium for it. However, excessive consumption combined with the introduction of improved breeds such as the Rhode Island Red and recurrent outbreaks of Newcastle disease were diluting the Kadaknath gene pool and numbers plummeted in the late 1990s. Since 2003 a government programme has been running in tribal areas of Madhya Pradesh to enhance livelihoods of village communities. Prompted by a suggestion by local farmers, the Madhya Pradesh Rural Livelihoods Project (MPRLP) introduced the Kadaknath birds in new areas to support and strengthen local livelihoods. The MPRLP, in conjunction with village assemblies and BAIF, a local NGO, has facilitated the distribution of batches of 100 Kadaknath chicks, bought from the government hatchery involved in conserving this poultry stock. The carefully selected beneficiaries have received poultry farming training and obtained access to a variety of government programmes to finance the inputs. This led to unnecessary high initial investment on sophisticated poultry houses, special equipment and compound feed, as per experts' ill-founded advice. But through experience it was learnt that the breed has a high feed conversion rate and thrives well under (semi)scavenging conditions. In addition, vaccination, de-worming and first aid were provided by animal-health workers linked to BAIF. And while Kadaknath hens are sold in local markets, the popular birds are often purchased directly from the farm, reducing transaction costs for farmers. Rearing the indigenous Kadaknaths has increased annual net income from both eggs and offspring to an estimated 5,300 rupees (US\$ 120) per bird, compared to less than 1,200 rupees (US\$ 28) for other, ordinary native species. Currently, households have also taken up rearing Kadaknaths in scavenging systems themselves, typically in conjunction with few local hens that are good brooders, which Kadaknath hens aren't. Another plus for the Kadaknath is that they are vital in certain religious ceremonies.

### Affordable healthcare is crucial

The two cases show that only small interventions are needed to revive and strengthen self-sustainable smallholder poultry practices that use indigenous breeds. There is no need to revolutionise prevailing husbandry practices or to make use of costly housing and equipment or to introduce day-old chicks or buy special feed. What *is* critical however is the provision of affordable animal health services for farmers, including the timely vaccination of chicks. Another important aspect concerns the diversity of the farming system; the more diverse the farm, the better the scavenging material. The Aseel case shows that female farmers can easily modify their own traditional farming and poultry distribution system. In the case of the Kadaknath birds, it was necessary to "learn by doing" before realising that these birds could best be kept in the way tradition had taught. Both cases show that governments would do well to stop distributing commercial hybrids, albeit for free, and focus on the provision of public services such as the prevention and control of (zoonotic) diseases. Communities themselves, and the private sector (or a public/private partnership), can be relied on to supply, for example, day-old chicks. Indeed, two pioneering companies in India are doing well out of selling two other indigenous species, the Kuroiler and Sadpuda, that are well adapted to the often harsh living conditions that exist in poor, rural communities. In their business strategies, both companies successfully targeted poor households.

### A gift for society at large

This evidence from India suggests that indigenous poultry, normally handled by women, can significantly contribute to farmers' livelihoods through increased food security and cash income. While the returns from rearing just a few indigenous birds may not be sufficient to fully sustain a family, they will serve to generate highly nutritious food at minimal cost. In addition, these practices bestow dignity and respect on the family, which can offer an egg or the slaughter of a bird for its guests. The contribution that such practices make to heritage and cultural conservation can be regarded as a gift for society at large. ■

Mamta Dhawan ([mamta@sapppp.org](mailto:mamta@sapppp.org)) is senior veterinary officer at the South Asia Pro-Poor Livestock Policy Programme in New Delhi, India. Lucy Maarse ([lucy.maarse@gmail.com](mailto:lucy.maarse@gmail.com)) is an independent advisor (Livestock & Livelihood) specialised in tropical animal production and extension, currently working from the Netherlands. Ugo Pica-Ciamarra ([piciaciamarra@fao.org](mailto:piciaciamarra@fao.org)) works at the Animal Production and Health Division of FAO, in Rome, Italy, focusing on livestock sector policies and institutional changes for poverty reduction.