

Workshop on the Conservation of Indigenous Poultry Breeds of Bhutan

10th to 12th August 2011,
Thimphu, Bhutan

SOUTH ASIA
Pro Poor Livestock Policy Programme
A joint initiative of NDDB and FAO



South Asia Pro Poor Livestock Policy Programme *(a joint initiative of the National Dairy Development Board and FAO)*

- Initiated in 2006
- Mission – *Ensure that the interests of small-holder livestock rearers are reflected in national and regional policies and programmes that affect their livelihoods.*
- Under implementation in Bangladesh, Bhutan and India through programme partners – BRAC (Bangladesh), Department of Livestock Services (Bhutan) and BAIF Development Research Foundation (India).
- Focus on three themes : *small - holder poultry rearing; common lands and impact on livestock rearing; small ruminant rearing (goats and sheep)*
- Implementation Approach – *Identifying and documenting good practices on livestock rearing that have benefited the poor, dissemination and policy dialogue and advocacy .*

Documentation of Good Practices

Small Holder Poultry Rearing

- Supporting poor rural households to improve the productivity of back-yard poultry (*desi* birds) through a network of trained village facilitators, documentation and promotion of ethno-veterinary practices (*tribal regions of Bastar, Chattisgarh, India*)
- Conservation and promotion of indigenous breeds for sustainable livelihoods (*Kadaknath in Madhya Pradesh and the Aseel in Andhra Pradesh, India*)
- Improved dual purpose birds (Kuroiler in West Bengal) – distribution of day-old chicks to mother units, 21 day rearing at the mother units, distribution to household poultry rearers through a network of *pheriwalas*.
- Synthetic improved hybrids (*Satpuda Desi*) – replica of native chicken (Jalgaon, Maharashtra – Yashwant Agritech)
- Broiler farming by small-holder poultry rearers (the PRADAN model, Madhya Pradesh and Jharkhand)
- BRAC, Bangladesh – Poultry Vaccinators Model (19,900 vaccinators delivering health services to over 3 million poultry keepers).
- Use of poultry litter to run bio-gas plants (200 birds can provide enough litter to run a 1.2 cubic metre plant, providing clean cooking fuel for 2-3 hours everyday)

Documentation of Good Practices

Common Lands and Impact on Livestock Rearing

- A range of good practices documented focusing on institutional arrangements to facilitate community efforts to develop, regenerate and equitably distribute fodder resources from common lands.
- Good practices on alternative fodder sources (oats in high altitude areas, willow silage as nutritious winter fodder).
- Validation of traditional knowledge on fodder regeneration (lopping of fodder trees, burning as a management tool).
- Common land development and regeneration in watershed development programmes.
- Conflict resolution and facilitating convergence between different stakeholders.

Documentation of Good Practices Small Ruminant Rearing (Goats and Sheep)

- Rather than a focus on specific practices, identification of implementation approaches on specific themes related to small ruminant rearing – breed conservation and improvement; feed, fodder and access to grazing lands; health services and institutional arrangements; market access and value chains.
- Documentation of approaches related to health services and institutional arrangements; and market access and value chains completed.
- Work on other themes to commence.
- Detailing of lessons learnt and identification of issues for policy dialogue to follow.

Dissemination and Policy Dialogue

- **National Workshop on Small-Holder Poultry Rearing in India** *(major recommendations – support for the creation of a cadre of grass-root animal health workers; collectivisation of small holders to achieve economies of scale; identify, document, validate and disseminate ethno-veterinary practices; build first on poultry assets that the community has; recognise various small-holder poultry models; prioritise investment and resources in small-holder poultry research and education; support the conservation of indigenous breeds as a larger public good).*
- **National Workshop in Bangladesh to Assess Implementation of the National Livestock Development Policy and National Poultry Development Policy** *(major recommendations – need for development of an action plan to translate policy into grass- root action)*
- **National Workshop on Indigenous Poultry Breed Conservation in Bhutan**

CONSERVATION AND PROMOTION OF INDIGENOUS POULTRY BREEDS OF INDIA



Indigenous Poultry Breeds of India

Breed	Home Tract	
	Home Tract	
Ankaleshwar	Gujarat	
Aseel	Chhattisgarh, Orissa and Andhra Pradesh	
Busra	Gujarat and Maharashtra	
Chittagong	Meghalaya and Tripura	
Danki	Andhra Pradesh	
Daothigir	Assam	
Dumasil	Orissa	
Ghagus	Andhra Pradesh and Karnataka	
Gujuri	Orissa	
Hansli	Orissa	
Harringhata Black	West Bengal	
Kadaknath	Madhya Pradesh	
Kalasthi	Andhra Pradesh	
Kalahandi	Orissa	
Kashmir Favorolla	Jammu and Kashmir	
Miri	Assam	
Nicobari	Andaman & Nicobar	
Phulbani	Orissa	
Punjab Brown	Punjab and Haryana	
Tellichery	Kerala	
Vezaguda	Orissa and Andhra Pradesh	

Government Initiatives

- 11th Five Year Plan (2007-2012) – Importance accorded to conservation programmes for indigenous poultry breeds with special reference to its potential for backyard poultry.
- The Centrally Sponsored Scheme for Conservation of Threatened Breeds of Livestock devised in the 11th Five year plan was expanded in 2008 to include poultry and duck breeds also.
- Working Groups constituted for the formulation of the 12th Five Year Plan includes a sub-group on Poultry
- Recognition in policy documents of the importance of poultry rearing as a livelihood opportunity for the rural poor.

Reviving the Indigenous Poultry Breed – *Kadaknath, Madhya Pradesh*

- *Kadaknath* is a native breed of poultry reared by the Bhil and Bhilala tribal communities of Western Madhya Pradesh.
- The breed is of immense socio-cultural significance (highly valued for its black meat and blood)
- Introduction of exotic birds like the RIR and Australorp etc under various rural development programmes in the home tract of the *Kadaknath* led to indiscriminate breeding and a resultant loss in pure *Kadaknath* birds.
- In 1982, the Animal Husbandry Department of Madhya Pradesh established a *Kadaknath* breeding farm and hatchery with the objective of conserving and propagating the breed.
- The Madhya Pradesh Rural Livelihoods Project (MPRLP) joined hands with BAIF to provide *Kadaknath* chicks to poor households in Jhabua and the neighbouring district of Barwani in Madhya Pradesh to enhance their livelihoods.

Reviving the Indigenous Poultry Breed – *Kadakhnath, Madhya Pradesh*

- Initially units of 100 *Kadakhnath* chicks were given to beneficiaries where the rearer would grow the chicks for six months, at which time they weighed about 1 kg, and sell them thereafter.
- To house the birds a shed was constructed (Rs 12-15,000), the financing for which was linked to various government schemes.
- Once the *Kadakhnath* established itself in an area, various tribal farmers took up this activity and began rearing smaller flocks (even a pair) as they were rearing *desi* (non-descript) birds.
- One of the modules under the National Agricultural Innovation Project (NAIP), of the Indian Council of Agricultural Research (ICAR) includes strengthening of *Kadakhnath* poultry units, developing a marketing network, and the production and promotion of low cost poultry feed.
- The project has an outlay of Rs 351.62 lakhs (3 years - April 2009 to June 2012).

Desi vs Kadakhnath



Variables		<i>Desi</i>	<i>Kadakhnath</i>
Market Price (Rs)	6 months	Cockerel: 80 - 90 Hen: 70 - 90	Cockerel: 100 - 150 Hen: 90 - 100
	12 months	Cockerel: 150 - 200 Hen: 120 - 150	Cockerel: 250 - 300 Hen: 150 - 250
Annual Egg Production		40 - 60	80 - 90
Egg Spoilage during Hatching		25 - 30%	20 - 25%
Size of Egg (Grams)		28 - 40 gm (average 32.66)	32 - 46 gm (average 40.66)
Price of Egg (Rs)		3 - 4	4 - 5
Colour of Egg		Light Brown	Dark Brown
Tenderness of Meat		Hard	Soft and Lean

Characteristics of the *Kadakhnath*

- Jet black in colour
- Body weight of an adult cockerel is 1.5-2 kg and an adult hen is 1-1.5 kg
- Hens start laying eggs at the age of 6 months
- Eggs are laid in two or three clutches in a year, each consisting of about 25-30 eggs.
- Annual egg production is between 80 – 90 eggs. Since they are not good brooders, *desi* hen are used to hatch the eggs.

The Potential Good Practice note can be accessed from <http://sapplp.org/goodpractices/small-holder-poultry/INGP04-Reviving-the-Indigenous-Poultry-Breed-Kadakhnath/>

Unpacking the ‘Poor Productivity’ Myth – Aseel (the Invincible)

- In the early 1990s, the Government, in an effort to increase egg production, introduced the *Giriraja* cross-breed in the East Godavari district of Andhra Pradesh.
- These birds were found to be incompatible with the local preference for meat and indigenous practices such as cock fighting. This strategy coupled with the annual poultry mortality due to New Castle and other diseases resulted in losses to traditional poultry rearers.
- This loss of biodiversity and income warranted immediate efforts that could reinforce the genetic integrity of the local breed ‘Aseel’ and strengthen local livelihood systems.
- In 1994, a consortium of NGOs led by Anthra initiated a programme among 2,000 tribal households in East Godavari for disease prevention and biodiversity conservation. The programme empowered local women to prevent losses, increase the Aseel population and lobby with the Government for services.
- The innovation resulted from the dissemination of a traditional system of sharing and building livestock assets called ‘*Vaata*’ among the tribals of Andhra Pradesh, under which each women member of the *Gottis* (local village women’s groups) was given a few Aseel hens and the village some breeding cocks. Each recipient was asked to return half of the subsequent chicks produced to the group corpus. The returned chicks were re-distributed free or sold and the savings were accumulated with the *Gotti* accounts.
- As a result, the original germ-plasm spread to over 74 women in six villages.

Unpacking the ‘Poor Productivity’ Myth – Aseel (the Invincible)

- The NGO Consortium also held workshops for the Women’s *Gottis* on issues such as group management procedures, building immunity and reducing susceptibility to various poultry diseases. The women were also trained to use simple herbal remedies and were also provided information on seasonal de-worming and vaccination on a routine basis.
- As the *Gottis* grew in numbers the women were able to lobby with the Animal Husbandry Department to get free vaccines for New Castle Disease. In 2007, the women launched an intensive vaccination drive reaching out to 12,000 birds across 45 villages. The intervention resulted in a considerable reduction in poultry mortality from 70% in 1996 to 25% in 2008.
- Similar approaches have since been successfully adopted by *Dalit* communities in the East Chittoor district of Andhra Pradesh to conserve the Kalahasti breed of indigenous poultry.

Economics of Aseel Production in the Backyard System

Variable	1 Aseel hen	Income in 2008
No of clutches in a year		3
No of eggs/clutch		15
Total no of eggs in the year		45
Egg spoilage/breakage		2eggs*3clutches = 6
Chicks born		39
Chick mortality		7
Total loss		13/45 (28%)
Chicks survived		32
Value of offspring-1/2 hens and 1/2 cockerels		
Cockerels @ Rs 250/bird		Rs 2,250
Hens @ 140/bird		Rs 1,260

Characteristics of the Aseel

- The most popular varieties are *peela* (golden red), *yarkin* (black and red), *Nurie 89* (white), *kagar* (black), *chitta* (black and white silver), *Teekar* (brown) and *Reza* (light red)
- Average weight of cocks is 3-4 kg, hens 2-3 kg, cockerels 2.5-3.5 kg and pullets 1.5-2.5 kg
- Size of a good specimen of an Aseel Cock from head to toe: 28 inches
- Hens start laying eggs at the age of about 6 months
- The bird is important in tribal culture for cock-fighting.

The Good Practice note can be accessed from <http://sapppp.org/goodpractices/small-holder-poultry/SAGP25-unpacking-the-poor-productivity-myth/>



Conservation of Indigenous Poultry Breeds – Major Learning

- In the livestock sector, balancing the priority need of conservation and promotion of indigenous breeds with the need to increase production is a major development challenge.
- A part of the answer lies in identifying what model of livestock development works best in a given context (low input/ low output; moderate inputs/ moderate output; high input intensive/ high output/ high risk).
- Building on livestock assets that the community has is the best starting point. As backward and forward linkages are secured, communities can be supported to 'graduate' to more intensive, higher input/higher output systems.
- With greater disease resistance and adaptability, a scavenging feed base, conserving and up-scaling indigenous poultry breeds can contribute significantly to food and nutrition security and lead to small but sustained income improvements.

Conservation of Indigenous Poultry Breeds – Major Learning

- Collectivisation of small-holder poultry farmers is a viable institutional model that facilitates economies of scale in the provision of inputs and access to markets.
- Under small-holder poultry rearing systems, simple improvements in management and rearing practices can contribute to significantly reducing mortality (practices that build on local knowledge, ethno-veterinary systems).
- Provision of preventive health services (vaccination support) at the 'door-steps' of farmers is critical in facilitating sustainable small-holder poultry farming.
- Farmers should be provided with complete information about different poultry rearing systems and the inputs and resources required to enable informed choices.
- Creation of 'niche' markets for indigenous poultry products.
- Programmes for the conservation of indigenous breeds should be subsidised/ supported as a 'larger' public good.