

## Good Practice Brief

# Unpacking the 'Poor Productivity' Myth

## Women Resurrecting Poultry Biodiversity and Livelihoods in Andhra Pradesh, India

### SUMMARY

A federation of 1800 *Adivasi* women across 80 villages resurrected the Aseel population by building local disease management and feeding strategies, promoting traditional asset sharing to preserve the Aseel biodiversity and lobbying for timely vaccination with government agencies.

This Good Practice shows:

1. a remarkable reduction in chick mortality from 70% in 1997 to 25% in 2008 – lowest was 6% in 1999;
2. a threefold increase in income from poultry, comparing the pre-intervention (1998) and actual situation (2008);
3. the efficacy of local mobilisation, wherein a mass vaccination drive reached out to 12,000 birds in 45 villages; Government provided vaccines; trained women vaccinated;
4. the value of indigenous Aseel germ plasm with average weight of two year old male bird ranging from 3 – 4 kg and female from 2 – 3 kg;
5. the importance of traditional practices with Aseel having major cultural significance and local market demand – being sold at an average of Rs. 140/- per kg – with figures tripling during festival season and fighting cocks priced between Rs. 500/- to Rs. 1500/-;
6. the lack of poultry feed/ scavenging material led to a shift in cropping systems (less tobacco, cotton; more food crops), the diversification stimulated a more varied diet and enhanced crop bi-products for both poultry and small ruminants.



### What was the problem and Where?

The Aseel is reared under backyard poultry management systems and is a vital source of meat, income and is an important part of *adivasi*<sup>1</sup> culture in East Godavari district. This bird is also the only resource completely owned and controlled by women; from bird selection to sale. Today this indigenous breed, which has its lineage from the original Red Jungle Fowl, is threatened due to high production losses, infectious diseases and policies promoting non-local breeds.

<sup>1</sup> Ādivāsīs (Devanagari: literally: *original inhabitants*) is an umbrella term for a heterogeneous set of ethnic and tribal groups believed to be the aboriginal population of India and comprise a substantial indigenous minority. Tribal people constitute 8.2% of the nation's total population, over 84 million people according to the 2001 census, *Adivasi* societies are particularly present in the Indian states of Orissa, Madhya Pradesh, Chhattisgarh, Rajasthan, Gujarat, Maharashtra, Andhra Pradesh, Bihar, Jharkhand, West Bengal, Mizoram and other North-Eastern states, and the Andaman and Nicobar Islands.

As a result, although a farmer could potentially earn over Rs.4,000/- per adult hen/ year (see Table 1), actual earnings are less than half of this, due to losses resulting from egg spoilage/ infertile eggs and chick mortality. Annual poultry mortality is also remarkably high at 70-80% due to Ranikhet (New Castle disease), Fowl Pox, Bacterial White diarrhoea etc. This scenario had, until recently, translated into an average annual loss of Rs. 30,000/- to Rs. 50,000/- per village, which in turn led to heightened vulnerability and indebtedness.

<b>Table 1: Economics of Aseel Backyard-Poultry Production System</b>				
<b>Variable</b>	<b>-1 Aseel hen-</b>	<b>Potential income</b>	<b>Actual Income<sup>1</sup> 1998</b>	<b>Actual income<sup>2</sup> 2008</b>
No of clutches /year		3	3	3
No of eggs/clutch		12	12	15
Total no of eggs /year		36	36	45
Egg spoilage/breakage		2	4eggs*3clutch= 12	2eggs*3clutches= 6
Chicks born		34	24	39
Chick mortality		2	7	7
Total loss		4/36 (11%)	19/36 (53%)	13/45 (28%)
Chicks survived		32	17	32
<b>Value of offspring-1/2 hens and 1/2 cockerels</b>				
Cockerels @ Rs 200/bird (1998) and Rs 250/bird (2008)		16* Rs 200 =3,200	8* Rs 200 = 1,600	9* Rs 250 = Rs 2,250
Hens @ Rs 100/bird (1998) and 140/bird (2008)		16* Rs 100 =1,600	9* Rs 100 = 900	9* Rs 140 = Rs 1,260
<b>Vaata- Traditional Sharing system:</b>				
Offered for Sharing				4
Received back & sold				15 birds sold @ Rs 2300
Total income		Rs 4,800	Rs 2,500	Rs 5,810
<b>Expenditure:</b>				
Feed		Rs 700	Rs 700	Rs 60 <sup>3</sup>
Health care expenses (vaccinations etc)		Rs 36	Nil	Nil <sup>4</sup>
<b>Net income:</b>		Rs 4,064	Rs 1,800	Rs 5,750 10 chicks from 3 <sup>rd</sup> clutch
<sup>1</sup> Based on the Participatory rural surveys in villages before intervention				
<sup>2</sup> Figures are indicative, based on randomly selected household from a sample survey in Jan 2008				
<sup>3</sup> Broken rice, ganti, taudu, bran fed from their own produce for 8-9 months in a year				
<sup>4</sup> Vaccinations sourced from Animal Health Department and use of ethno veterinary medicine locally available				

High bird mortality and morbidity had also been threatening the Aseel gene pool with farmers finding it increasingly difficult to purchase pure Aseel to replace their stock. Efforts undertaken by local government agencies promoting non-local breeds (such as *Giriraja*) that have high egg producing capacity were found to produce birds that are incompatible with local preferences for meat and indigenous practices such as cock fighting and religious sacrifices. This loss of biodiversity and income warranted immediate efforts that could reinforce the genetic integrity of Aseel and strengthen local livelihood systems.

### How Did the Good Practice Work?

In 1996, a group of non-government organisations (Anthra, Girijana Deepika and Yakshi) studied local Aseel production systems in 24 *adivasi* villages of East Godavari and initiated disease prevention and bio-diversity conservation strategies. Activities included training of village poultry health workers and introduction of basic

healthcare practices such as vaccinations and de-worming, as also encouraging use of local herbal remedies in prevention and first aid, building women's capacities to effectively manage and feed their poultry, empowering women to access preventive vaccinations from government services and encouraging local poultry asset creation under the traditional *Vaata* system.

Under this *Vaata*, individual women members of *Gottis* (local village women's groups) were given a few Aseel hens and each village some breeding cocks. Each recipient was asked to return half the subsequent chicks produced by the hens to the group corpus. The returned chicks were redistributed free or sold and the savings were accumulated within the *Gotti* accounts. In 1999, 200 hens and 67 cocks were distributed to 196 women in 20 villages and at the end of the following year there were 1,414 offspring, with 194 eggs yet to hatch. To illustrate the impact of this *Vaata*, in village Noogamamidi in 2001, beneficiaries returned 55 chicks to the group corpus. As there were no further takers in the village, the village *Gotti* sold the chicks and earned Rs. 2899/-. The next year, an additional 54 women joined the poultry *Vaata* system and over the next seven years, the offsprings of the original Aseel germplasm from this one village spread to 63 women, in 6 other villages.

This activity was purely funded by women themselves with Rupees 60,000/- of group savings serving as the initial investment for purchasing birds. Money was also earmarked for provision of a poultry medical kit for each village. These costs were fully recovered by the end of the first year itself. Given the success of the initiative, women started a village revolving fund for medicines and vaccinations wherein each member contributed Rs. 3-5 per month for disease control. To support this initiative, the NGO consortium trained 71 animal health workers between 1992 and 2004, of which 60% were women. These 40 day trainings covered all aspects of animal health with special emphasis on poultry care and management including identification and prevention of production losses, poultry nutrition, housing, vaccination, herbal medicines for disease control and first aid. The women's *Gottis* were also able to advocate for and mobilise Ranikhet prevention vaccinations from the state Animal Husbandry Department and initiated vaccination drives reaching out to 12000 birds across 45 villages. Overcoming the greatest challenge of obtaining sufficient quantities of vaccines prior to the outbreak season, was considered one of their biggest achievements by the *Gotti* women.

Efforts to improve the nutritional base of poultry were also introduced to reduce feed costs. While earlier poultry scavenging had been supplemented through byproducts of food crops; massive shifts to commercial crops such as cotton and tobacco had resulted in a lower nutritional plane for the birds. The NGO consortium worked with local groups to rebuild crop diversity (millets, pulses and oil seeds) that contributed to both food-security for humans and left adequate crop-residues such as fodder for animals and feed for poultry. A recent survey carried out, revealed that 1032 farmers, had cultivated 20 different types of food crops in 3096 acres, which was 60% of the total available cultivable land. These figures were in contrast to 1998, where the average coverage of food crops was less than 25%.

In 2002, the NGO consortium that had been supporting the *Gottis* stopped direct involvement and encouraged the groups to develop village based implementation strategies themselves. By January 2008, the *Gottis* had organised themselves into a federation called *Tholakari Adivasi Mahila Vedika* with a membership of 1800 women spread across 80 villages. In 2008, a survey highlighted that overall chick mortality had fallen from 70% to 17% in 24 villages, there was a marginal increase in per-capita poultry holding rising to 11.23 birds in 2008 from 5-10 birds in 1998 and women were encouraging higher home consumption of birds that improved family nutrition.

## Key Learnings

This good practice showcases the livelihood security and community empowerment brought in by preserving the Aseel as the preferred breed of choice by the *adivasi* women of East Godavari. It also showcases that despite livestock care being perceived as a male occupation, women not only took informed, technically sound decisions related to *Vaata* management but also lobbied with government departments to control diseases at the village level. In fact many women expressed a keen desire to have access to this specialised form of knowledge which had been denied to them over the years. However, despite success, these women

continue to struggle for timely access to vaccinations to save their precious birds against Raniket and Fowl Pox and fight the fear of mortality and morbidity every year. Another grave concern of tribal women in recent years has been the possible disastrous consequences of a **bird-flu epidemic** and the fear that the administration would unfairly target backyard poultry and destroy the very birds that have been so painstakingly resurrected

Further, despite positive policy frame conditions like the Brundtland report (1987) that drew attention to mounting loss of biodiversity of plants and animals, national responses to biodiversity loss continue to flag issues such as indiscriminate breeding and lack of farmer's awareness as impediments to productivity. This case showcases that indigenous breeds play a critical role in building local livelihoods. It also highlights the need to acknowledge efforts of tribals in preserving their valuable genetic resources.

### Where Next and How?

Observing the impact of this effort in East Godavari, *adivasi* women from 6 other districts in Andhra Pradesh, (Vizianagaram, Visakhapatnam, Srikakulam, West Godavari, Khammam and Adilabad) have approached Anthra for training and since 2006 have been adopting similar conservation strategies. Similar approaches have been successfully applied by *Dalit* women in East Chittoor to conserve the Kalahasti breed of indigenous poultry.

This good practice is worthy of replication because it shows the success of a community led effort that enhanced women's livelihoods, provided economic returns as well as facilitated local mobilisation around Aseel conservation. It also highlights that people aptly know the value and potential of their genetic resources.

However, for effective replication there are still some issues that need to be addressed. **Firstly**, government agencies need to take cognisance of the fact that poultry schemes need to be relevant to community and market expectations. **Secondly**, the myth that 'desi is not productive' needs to be re-evaluated based on field studies taking into account agro-climatic and cultural realities. **Thirdly**, until vaccination services are streamlined and Raniket and Fowl Pox are controlled, chick mortality will continue to deprive *adivasis* of their precious livelihoods. **Lastly**, prevention and control of Bird Flu is becoming an important national and international issue. However, any initiative in this direction needs to involve the primary stakeholders through joint planning to create a level playing field. These stakeholders need to be viewed as a part of the solution and, thus, part of planning the Bird Flu mitigation/ response strategies.

## SOUTH ASIA Pro Poor Livestock Policy Programme

A joint initiative of NDDDB and FAO

Regional Office:

NDDDB House (6th Floor) PB 4906, Safdarjang Enclave  
New Delhi - 110029, INDIA

Tel: +91 (0) 11 2619 7851 / 7649 • Fax: +91 (0) 11 2618 9122

E-mail: [sapplpp@sapplpp.org](mailto:sapplpp@sapplpp.org)

Website: [www.sapplpp.org](http://www.sapplpp.org)

### Partnering Institutions

BRAC  
BRAC Centre  
75 Mohakhali, Dhaka 1212  
BANGLADESH  
Tel: +880 2 8824180-7 Extn: 2311  
Fax: +880 2 8823542, 8826448  
E-mail: [saleque@sapplpp.org](mailto:saleque@sapplpp.org)  
[saleque.ma@brac.net](mailto:saleque.ma@brac.net)

Department of Livestock  
Ministry of Agriculture  
Thimpu  
BHUTAN  
Tel: +975 (0) 2 351102  
Fax: +975 (0) 2 322094, 351222  
E-mail: [tshering@sapplpp.org](mailto:tshering@sapplpp.org)  
[naip@druknet.bt](mailto:naip@druknet.bt)

BAIF Development Research  
Foundation  
Dr. Manibhai Desai Nagar, NH 4  
Warje, Pune 411058, INDIA  
Tel: +91 (0) 20 25231661  
Fax: +91 (0) 20 25231662  
E-mail: [sepawar@sapplpp.org](mailto:sepawar@sapplpp.org)  
[sepawar@baif.org.in](mailto:sepawar@baif.org.in)

For copies of this publication, kindly contact the Regional Office or the Partnering Institutions