Potential of Desi Backyard Poultry Businesses – Case studies from Andhra Pradesh
Introduction

The indigenous breeds of chicken are playing an important role in rural economies. Backyard poultry is one of the feasible options for sustainable livelihood seen in most of the developing and underdeveloped countries. They are part of a balanced farming system that have vital roles in the rural households as a source of high-quality animal protein and emergency cash income and play a significant role in the socio-cultural life of the rural community and women empowerment.

Backyard poultry is a very common production system in rural areas as poultry farming occurs in 70% of rural households in the country. 82% of the found in backyard production systems in India are indigenous. It provides supplemental income to the tribal families especially to the women as they mostly maintain poultry farming in their backyards, mostly used for egg and meat production.
Chekka Parvati and her husband Swamulu are residents of Nimmalapalem Hamlet in D. Bheemavaram Panchayat, ITDA Rampachodavaram, East Godavari District. They have two sons and a daughter, who are all married and live in Addateegala, a small town 8 km away. They own 15 acres of land, of which 7.5 acres is cultivable and the rest is Podu land. During the summer, they harvest cashew crop and earn Rs 70,000. They rear livestock and manage desi poultry alongside.

Laya, the field partner NGO, and WASSAN, the lead technical agency organized a Gram Sabha at Nimmalapalem and explained about the value of desi bird rearing, along with the importance of having a Common Interest Group (CIG), pooled funds, vaccination services, better designed desi poultry breed farms, etc.

During the Gram Sabha, Chekka Parvati came forward and expressed interest in establishing a breed farm enterprise as she had already had some experience in rearing desi birds. Chekka Parvati personally invested Rs 30,000 into creating the breed farm with additional programme support of Rs 90,000 for shed construction. She signed a resolution to distribute 500 chicks to 100 households (HHs) at a cost of Rs 80 per bird. She earned Rs 40,000 by distributing chicks to the CIG members.

With the money collected by the CIG members, a joint account was opened (poultry health care fund) to purchase vaccine and pay the vaccinators. Laya organised the necessary capacity building training programmes to train the vaccinators. The vaccinator who was trained initially had left the village. So Chekka Parvati was trained to vaccinate the birds. She now vaccinates her own birds as well as the birds of the CIG members.

"If one person in the household dedicates time to manage the desi poultry following the technical suggestions given, we can earn Rs. 70,000 net income per annum,"

~ Chekka Parvati.
After regular vaccination, the mortality rate among the birds reduced drastically from 75 percent to 20 percent. Earlier, the birds used to sleep on trees and mortality due to predation was very high. Predation has come down after the farmers started using appropriate night shelters along with sheds at the breed farms. In order to provide nutritious feed to the birds, Parvati is growing millets at the family farm. She has also developed foraging area by sowing vegetable plants, developing termites and growing azolla.

In 2019 October, she had 113 birds in her breed farm, including 16 cocks, 26 pullets, 31 growers and 42 chicks. She earned Rs 40,000 by distributing 500 chicks to their 100 HHs. During the local festivals, the villagers offer desi poultry birds to the deity and feast on it. Between January-December 2018, she earned Rs 60,000 net income (spent Rs 20,000 rupees to buy feed during this period).

Chekka Parvati also follows the traditional barter system where she gives a 4-5 month old bird to another person for rearing. The taker rears the bird until they lay eggs and produce chicks. After the chicks are born, the mother bird and half of the chicks are returned to Chekka Parvati. Chekka Parvati has gotten into this arrangement with 21 adjoining HHs.

Every month, several farmers from various districts visit her breed farm, as part of exposure visits. Seeing first-hand the income Parvati is earning, they are motivated to start their own desi backyard poultry activities.

### Following Package of Practices Fetches Higher Prices from Consumers

Turre Satyavathi - 40 years old and her husband - Mastyalingam 44 years old, belong to the Konda Dora tribal community. They live in YB Gonduru village (total population of 163 from 40 families) of G Madugula Mandal of ITDA Paderu, located four km from the mandal headquarters in Visakhapatnam district. Yearly, she earns Rs 20,000/- from agriculture and Rs 15000/- from daily wage labour. Her husband earns Rs 50,000 per year from the kirana shop that he runs. It is hardly enough to support her family of four (a son, a daughter and her husband).

Satyavathi has been rearing 40 birds in her homestead even before the backyard poultry programme began. But she was not able to contain the mortality from communicable diseases. Satyavathi came to know about the BYP program on attending the Gram Sabha conducted by Jeevam (the local NGO) and WASSAN in January 2018. Here the women in the village realized the huge loss (in terms of money) they were incurring due to high mortality of birds – Rs 80,000/- across the village.
Satyavathi’s birds forage freely and are supplemented with millets like ragi and rice bran, which comes from her field. They are also supplemented with azolla and earthworms, termites from the compost pit (training is provided on developing azolla and termite pits). In a year (between March 2018 and September 2019), she spent about Rs. 48,000 on feed supplements such as maize, rice bran and medicines (when medicines were not available from the AH department).

The family also uses a few of the hens for domestic consumption. Mastyalingam (her husband) also spends considerable time in the rearing of desi poultry. Nearly 150 desi poultry rearing entrepreneurs from other districts of Andhra Pradesh and from other states such as Orissa, Madhya Pradesh and West Bengal, visited the breed farm to learn from Satyavathi and Mastyalingam. Their story was also broadcast on ETV Jaikisan programme on September 14, 2019.

The vaccinator who was providing vaccination service in the village got another job opportunity and moved on. So Matsyalingam took on the job of the village vaccinator. He runs a small kirana shop and stores the vaccines in the refrigerator at his shop. When vaccines are not available with the Animal Husbandry Department, he buys them from the local vaccine suppliers. He has now developed a good trade relationship with them. Since regular vaccination started, mortality from RD in the village dropped to zero. However, every HH loses a chick or two due to extreme weather conditions in the winter.

### INCOME THROUGH POULTRY: FROM MARCH 2018 – SEPTEMBER 2019

<table>
<thead>
<tr>
<th>Sold Poultry Item</th>
<th>Average Price</th>
<th>No. of Sold</th>
<th>Total Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicks</td>
<td>100</td>
<td>300</td>
<td>30000</td>
</tr>
<tr>
<td>Hens</td>
<td>400</td>
<td>215</td>
<td>86000</td>
</tr>
<tr>
<td>Cocks</td>
<td>700</td>
<td>60</td>
<td>42000</td>
</tr>
<tr>
<td>Eggs</td>
<td>8</td>
<td>360</td>
<td>2880</td>
</tr>
</tbody>
</table>

Pollamma and her mother-in-law Narsamma, from Gummidiguda village, Pachipenta Mandal in Parvatipuram ITDA, were both interested in rearing poultry birds. But predation was a major problem and they could not manage to grow their flock size or rear birds in large numbers.

Pollamma and Narsamma were happy to receive support from ITDA in 2016 for construction of night shelter. They had also received 5 chicks from a breed farm entrepreneur in 2017. The structure of the programme is to create a CIG – a cooperative of 100 households, which pool in money to avail the services of the vaccinator and get preference for sale of birds from the breed farm. This ensures that the birds stay healthy. Presence of this service has encouraged many to take up desi backyard poultry and become members of the CIG.

When buyers come to Satyavathi’s farm and see the package of practices that they follow, the diverse and healthy diet of the birds - they are willing to buy at a rate higher than at the shanty without much haggling. Sri. Dinesh Kumar (Trainee IAS Officer visiting Visakhapatnam) also visited the breed farm and encouraged Satyavathi and Mastyalingam for boosting their initiative.

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The duo use millet and paddy grains cultivated in their own farms as supplementary feed for the birds and so the amount they spend on feed is very low. They only purchase rice bran at Rs. 10 per kg. On an average, they spend Rs. 1000 on feed every year.

Pollamma and Narsamma are not interested in selling their birds. They use them for their household consumption and for religious sacrifice during local festivals. However, they do sell when the flock calls for it. As the number of cocks in their brood increased, they recently sold 5 cocks.

The women used this amount as part of the marriage expenses of Narsamma’s younger son. Of the total marriage expenses of Rs 40,000, they contributed Rs 8800 and supported the family in meeting the expenses.

“Until now, agriculture was our only source of food and money. Now, with some project support, especially the night shelter - there is huge scope to increase our income from BYP” - Pollamma

As on December 2019, they have 3 cocks, 10 hens, 14 growers and 13 chicks. Over the last six months, they consumed 8 birds and sold 14 birds, also selling cocks at Rs. 1200–1600 per bird.

### INCOME FROM SALE OF COCKS

<table>
<thead>
<tr>
<th>Cock / bird (Rs)</th>
<th>Number of Cocks sold</th>
<th>Total Income (Rs)</th>
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</thead>
<tbody>
<tr>
<td>1600</td>
<td>2</td>
<td>3200</td>
</tr>
<tr>
<td>1200</td>
<td>1</td>
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<td>2200</td>
<td>2</td>
<td>440</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>8800</strong></td>
</tr>
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Desi Poultry Boosts Savings for Gold Purchase

Kurangi Arudramma (44 years), w/o Appanna (55 years), lives in Peddaram hamlet of Chinarama village in Seetampeta block of Srikakulam district in Andhra Pradesh. Arudramma is an agricultural labourer with 2.5 acres of land and belongs to the Jatapu caste. She cultivates ragi using the guli ragi method on about 50 cents. She earns about Rs 15,000 from selling the surplus after domestic consumption. She also cultivates paddy, from which she earns about Rs 30,000. But she has a large family comprising her husband, two sons (studying in the government high school), two daughters (one of whom finished her degree and works as a village volunteer, another is studying second-year degree) and two grandchildren who attend anganwadi.

Around October 2017, she became a member of the poultry CIG at the behest of ARTS, the local NGO. She was also nominated to be its president. She and other members of the CIG received 3 chicks at Rs. 50 each. They also received mesh, cement and asbestos sheets for the construction of a night shelter.
Jowar, bajra are cultivated in her field to meet the supplementary feed requirement of the birds. She buys a bag of broken rice and bran every three months to supplement the bird’s foraging. She now has about 40 birds. She sold a few during the just concluded Dushhera festival (2019), where she earned Rs. 1800 for three birds. She also consumes a few birds at home when there are local festivals or relatives come visiting. She has earned around Rs 40,000 till date from the sale of birds. She proudly wears the gold earrings that she bought with her savings that includes money earned from selling desi birds.

“Before this program started, we used to sell our birds for Rs 150-200. Now our birds look healthy and robust, so we are able to bargain for anywhere between Rs 500-700 per bird.” – Arudramma

Breed Farm Couple Buys Lands and Builds Houses with Poultry Money

Savara Kittamma (42 years) and Bayappa (45 years) residents of Savara Bangiguda village in Seetampeta block of Srikakulam district in Andhra Pradesh, belong to the Savara caste. Originally from Chintada, they migrated to Savara Bangiguda a decade ago. He is mason and earns a wage of Rs. 450 on a good day when he finds work. But work is not regular. Some months are good with work available for 15-20 days but some months go by without any work and hence, the family income is very unstable.

Savara Kittamma and her husband have always reared backyard poultry (about 5 hens and 1 cock) for the family. The birds foraged in the backyard, and took shelter on the trees. They did not know about vaccinations or medicating the birds. They were left to survive the vagaries of nature. So once in a while they lost quite a few birds to predation and viral diseases.

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In October 2017, they happened to attend a Gram Sabha in the village where ARTS, a local NGO partner of WASSAN, spoke about desi backyard poultry (BYP) as an income source, about vaccination and medication using ingredients available in their kitchens and how that would make a big difference to the survival of the birds.

A CIG was formed in the village and each member of the CIG got 5 desi chicks as part of the programme in October 2018. They began vaccinating the birds regularly, following the suggestions for supplementary feed and also built a night shelter. This reduced mortality from predation and disease and also improved the health of the birds.

At the weekly shanty, they were able to bargain for a better price, as the birds looked healthy and robust. They were able to sell the birds for anything between Rs. 400-700 depending on the demand. During local festivals, they were able to bargain for a higher price. They realized that desi backyard poultry was indeed a good source of income.

Bayappa (Kittamma’s husband) realized during his visits to the shanty that the Aseel variety of birds were much preferred for their robust and impressive physical characteristics. They are mostly used for cock fights or as breed stock. They also sold for a much higher price, anywhere between Rs. 4000-5000, for one cock and 3 chicks. He added a few birds of Nemali Dega breed (Aseel variety) to his flock. Now he has buyers and fellow breed farm owners from as far as Rajahmundry (East Godavari district) come to him to buy his birds as breed stock.

The night shelter built as part of the program is no longer sufficient to accommodate Kitamma’s flock so they built a pucca shed with cemented walls on 15 cents of land with cashew trees that they own close to their home. They now have a flock of about 40 birds that Bayappa plans to sell in January during the Sankranthi festival. He hopes to get a good price.

Some of his savings from desi backyard poultry have gone into getting a pucca slab house and night shelter built. Over the course of the year, he has been able to earn Rs 80,000. Some of this high income may be attributed to his ability to read the market and incorporate the Aseel breed into his flock. He also bought 50 cents of dry land close by with the money saved from desi backyard poultry.

Kittamma and Bayappa got their daughter married after she finished her degree. They have two sons studying at the tribal hostel in Srikakulam (one son is studying in first year degree, while the other is in first year intermediate). They are proud of where they have reached and with his sons receiving an education, they believe they are on the path to prosperity.

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Income from Desi Breed Farm Enterprise Allows Family to Tide Over Emergency

Sanyasi Rao and his wife Silpajanni Lakshmi are residents of Sathabi, a hill top village in Pachipenta mandal (a tribal mandal) of Vizianagaram district in Andhra Pradesh. They have a family of five – Sanyasi Rao's mother and their two school-going children.

Sanyasi happened to attend the Gram Sabha organised by AASHRA, partner NGO to WASSAN, in October 2017 where they spoke about the backyard poultry programme. As he was already rearing quite a few desi birds (hens-15, cocks-4, growers-5, chicks-50), he thought it would be a good opportunity to become a breed farm entrepreneur. He readily came forward to start the breed farm.

The construction of the breed farm was completed in May 2018, complete with forage resources and fencing of his half-acre land. He currently has a flock of 112 birds (Hens-60, Cocks-10, Growers-12, Chicks-30). Apart from forage, he supplements the birds with broken rice, rice bran, and millets (jowar, little millet, ragi). He feeds the birds thrice a day – one and half kilograms in the morning, one kilogram in the afternoon and evening- total of three and half kilograms a day (735 kgs monthly and 2820 kgs annually). Of this he only purchases rice bran @ Rs 10 per kilogram, of which he requires 100kgs annually.
Sanyasi is also the vaccinator in the cluster. Vaccination against fowl pox and ranikhet disease were done thrice along with regular deworming. He also uses locally available garlic, turmeric, nelavemu and tulasi from time to time, to keep the birds healthy.

During the year 2018-19, he consumed about 25 birds during festivals including harvest festivals. In 2018, he sold (during Dussehra – 12, Pongal-14, local festivals -11) a total of 37 birds and earned Rs. 29,000. In 2019, he sold 18 birds at Rs. 900 per bird during Dussehra and earned Rs. 16,200. Sanyasi also earned Rs. 40,000 (500 chicks @ Rs. 80/ chick) from sale of chicks to households.

Apart from poultry he earns an income of Rs. 15,000 seasonally from the sale of tamarind and custard apple harvested from the breed farm. He cultivates different crop varieties like paddy and millets which he uses for domestic as well as poultry purposes.

Sanyasi’s mother who lives with them met with an accident, when she went to work in June 2019. She was hurt badly with bruises all over her body. She had to be rushed to the local government hospital at Salur where she was given first aid. She was moved to the Vizianagaram Government Hospital, where she was admitted for 2 days. Sanyasi Rao was able to meet the expenses of the emergency as he had saved the money earned from selling birds in January 2019 during the Sankaranthi festival. He also sold about 5 birds immediately to meet the expenses. He used Rs 15,000 of poultry money to meet the medical expenses.

Sanyasi and his wife are happy that they could meet the emergency expenses from the money earned from sale of birds, without having to take out any loan at high rate of interest.
Komaravaram is an interior tribal hamlet located six kilometers from the mandal headquarters of Gangavaram which is itself about 57 kilometres away from Rajahmundry, the biggest town in the region. A majority of the villagers are dependent on agriculture, managing livestock and income from wage labour. But agriculture here is not profitable due to common occurrences of heavy floods and droughts in the region. A few of the men migrate to urban areas for a better livelihood, while the others make do with managing livestock and desi poultry birds. Though most of the villagers have experience managing desi poultry birds in their homes, they did not look at it as an income source. Girijana Dheepika, local NGO partner to WASSAN, held a gram sabha where they spoke about ways in which villagers could reduce the mortality rate of the birds by building night shelters and through regular vaccination.

Kotam Chellayamma is a resident of Komaravaram village of Gangavaram Mandal, under ITDA Rampachodavaram in East Godavari District. She is a widow and is dependent on wage labour for income. She was rearing 8 to 12 birds for domestic consumption but never looked at it as an income source. She lost all her birds to predation and disease. She later bought two birds and also received five chicks from the breed farm entrepreneur, as part of the programme. However, she was completely unaware of the need for vaccination and the benefits of providing night shelter.

In October 2016 she joined the poultry common interest group (CIG) by paying Rs100 as membership fee and Rs 200 towards health care fund. Consequently, she received 5 chicks from the breed farm entrepreneur (BFE) and material (wire mesh) to construct the night shelter as part of the program. Since she used locally available material for construction, she didn’t spend any money from her pocket. She began receiving regular vaccination services. This helped reduce the bird mortality rate drastically from 12 to 3 birds, over the last two years. Her flock increased substantially as a result of regular vaccination and the night shelter.
In October 2019, she had 38 birds (9 Growers, 3 Cocks, 4 Mother Birds, 14 Pullets and 9 Chicks). Between January - October 2019, she sold 10 birds for Rs. 5000 and consumed 10 birds during local festivals and when guests and relatives visited her home. She spent Rs 1000 to buy millet feed for the birds to supplement foraging.

As she is getting older, she does not go out seeking wage labour as frequently as she used to. She takes care of her flock of birds at home. The income from selling the desi birds meets most of her needs. Her birds are in high demand during local festivals when households offer birds as sacrifice to the gods.

With Acknowledgement and Thanks

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