

# **SOUTH ASIA**

## **Pro Poor Livestock Policy Programme**

A joint initiative of NDDB and FAO

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## **Economics of village poultry**

### **SUMMARY**

- as part of the in-depth study on impact of rearing Kuroiler birds on the livelihood of the poor -

Four districts of West Bengal:

- East Midnapore,
- South 24 Parganas,
- Murshidabad, and
- Jalpaiguri.

A summary of the economics of keeping Kuroiler and Desi birds is presented on page one while a more detailed overview is shown on page two.

On page four to six, two small case studies reflecting the common situation of women keeping Kuroiler birds are presented.

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## Economics of village poultry

SA PPLPP (South Asia Pro-Poor Livestock Policy Program) conducted a field study in West Bengal in September 2007 to understand the livelihood implications of rearing improved village hardy birds called Kuroiler compared to traditional/indigenous/non-descriptive birds (*Desi*) at household level. Nearly 250 households were interviewed as part of this study. The study covered four districts of West Bengal — East Midnapore, South 24 Parganas, Murshidabad, and Jalpaiguri. The sample comprised of 180 households rearing Kuroiler and 80 *Desi* birds respectively. The sample distribution is given below

| Item                                   | No         |
|--|------------|
| <b>Total households surveyed</b>       | <b>260</b> |
| - Households keeping Kuroiler birds    | 180        |
| - Households keeping <i>Desi</i> birds | 80         |
| <b>District wise break-up</b>          |            |
| - South 24 Parganas                    | 65         |
| - East Midnapore                       | 60         |
| - Murshidabad/Nadia/Birbhum            | 70         |
| - Jalpaiguri                           | 65         |

The data gives very good information on the enterprise economics at household level. Some key findings are highlighted here; to give the importance of poultry in the livelihoods of the rural poor.

- Average market price reported at the time of survey ranged from Rs. 50 to Rs. 90 per kg for *desi* birds and Rs. 40 – 80 for Kuroiler birds
- Price also varied across regions, the district-wise ranges are given below (Kuroiler):
  - East Midnapore: Rs. 45-65
  - Jalpaiguri: Rs. 60-65
  - South 24 Paraganas: Rs. 60-80
- Average production value per Kuroiler chick bought (including home consumption of meat and eggs) was **Rs. 130**
- For **Desi birds** average production value (including home consumption of meat and eggs) was estimated at approximately **Rs.90** per bird.

| Average Flock sizes (no.) |                 |            |
|---------------------------|-----------------|------------|
|                           | Kuroilers birds | Desi birds |
| South 24 Parganas         | 10              | 7          |
| East Midnapore            | 9               | 6          |
| Murshidabad               | 6.5             | 10         |
| Jalpaiguri                | 5.5             | 5          |

| Average annual income from poultry per household was estimated as follows |             |
|---|-------------|
| East Midnapore  | Rs. 2,988.7 |
| South 24 Parganas   | Rs. 3,683.2 |
| Murshidabad   | Rs. 1,110.4 |
| Jalpaiguri  | Rs. 1,338.1 |

### ECONOMICS OF KUROIILER KEEPING

| Description   | East Midnapore | South 24 Parganas | Murshidabad   | Jalpaiguri    |
|---|----------------|-------------------|---------------|---------------|
|   | Revenue (Rs.)  |                   |               |               |
| Kuroilers sold during the past 12 months (Kg)           | 59.9           | 41.5              | 7.5           | 19.2          |
| Kuroilers consumed during the past 12 months (Kg)       | 10.5           | 19.2              | 8.7           | 5.9           |
| Average weight  | 2.5            | 2.4               | 2.8           | 2.8           |
| Price per Kg  | 55.2           | 65.9              | 60.8          | 60.9          |
| Value of Kuroilers sold                                 | 3304.3         | 2734.6            | 452.0         | 1170.3        |
| Value of Kuroilers consumed                             | 590.8          | 1202.6            | 335.0         | 345.0         |
| Egg production during the past 12 months                | 503.0          | 543.2             | 258.0         | 239.0         |
| Eggs sold during the past 12 months                     | 356.0          | 255.0             | 96.0          | 130.0         |
| Eggs consumption during the past 12 months              | 321.0          | 444.0             | 276.0         | 192.0         |
| Average price of eggs                                   | 2.25           | 2.30              | 2.95          | 2.40          |
| Value of eggs sold                                      | 748.8          | 573.4             | 279.0         | 311.0         |
| Value of eggs consumed                                  | 712.0          | 993.0             | 781.0         | 461.0         |
| Total cash revenue per household per year               | 4053.0         | 3308.1            | 731.0         | 1482.0        |
| <b>Total value of production per household per year</b> | <b>5355.8</b>  | <b>5503.8</b>     | <b>2062.3</b> | <b>2294.1</b> |
| <b>Total value of production per chick bought</b>       | <b>121.2</b>   | <b>155.0</b>      | <b>116.5</b>  | <b>128.8</b>  |
|   | Cost (Rs.)     |                   |               |               |
| Chicks bought during the past 12 months                 | 44.2           | 35.5              | 17.7          | 17.8          |
| Mortality rate (percent)                                | 18.4           | 16.8              | 21.1          | 22.2          |
| Cost of chicks  | 701.1          | 662.7             | 617.2         | 611.4         |
| Feed cost   | 1461.2         | 984.4             | 258.6         | 278.9         |
| Medicines and vaccination cost                          | 204.8          | 173.5             | 76.0          | 65.7          |
| Total cost  | 2367.1         | 1820.7            | 951.8         | 956.0         |
| <b>Average net income per household per year</b>        | <b>2988.7</b>  | <b>3683.2</b>     | <b>1110.4</b> | <b>1338.1</b> |
| <b>Average net income per chick bought</b>              | <b>67.6</b>    | <b>103.7</b>      | <b>62.7</b>   | <b>75.5</b>   |

### ECONOMICS OF DESI KEEPING

| Description   | East Midnapore/<br>South 24 Parganas | Murshidabad  | Jalpaiguri    |
|---|--------------------------------------|--------------|---------------|
|   | Revenue (Rs.)                        |              |               |
| Desi birds sold during the past 12 months               | 6.9                                  | 4.4          | 10.1          |
| Desi birds consumed during the past 12 months           | 7.9                                  | 7.3          | 3.8           |
| Average weight  | 1.0                                  | 0.6          | 1.1           |
| Price per Kg  | 55.0                                 | 60.0         | 61.0          |
| Value of Desi birds sold                                | 379.5                                | 158.4        | 677.7         |
| Value of Desi birds consumed                            | 434.5                                | 262.8        | 255.0         |
| Value of egg production during the past 12 months       | 405.2                                | 509.9        | 531.5         |
| <b>Total value of production per household per year</b> | <b>1219.2</b>                        | <b>930.0</b> | <b>1464.2</b> |
| <b>Total value of production per bird</b>               | <b>82.4</b>                          | <b>79.5</b>  | <b>105.3</b>  |
|   | Cost (Rs.)                           |              |               |
| Feed cost   | 203.5                                | 25.4         | 107.4         |
| Medicines and vaccination cost                          | 87.0                                 | 69.3         | 71.6          |
| Total cost  | 391.9                                | 198.7        | 253.0         |
| <b>Net Revenue/profit per household per year</b>        | <b>536.8</b>                         | <b>636.6</b> | <b>1032.2</b> |
| <b>Net revenue per bird</b>                             | <b>38.9</b>                          | <b>54.4</b>  | <b>74.3</b>   |

## **Case Study One**

### **BIBIJAAN BEWA**

Bibijaan Bewa – Bewa means a widow. This is how a widow is called in this predominantly Muslim village. The team met her on 15 September 07. Bibijaan is about 50 years old and lives on her own. She lost her husband six months ago. She has two sons who live close-by. She has no land or kitchen plot although the house is her own. There are a few coconut trees in the yard. Fruit from the trees is consumed at home by Bibijaan and her sons' families. Her sons work as daily wage earners and manage to earn Rs 60/- a day when labor is needed for agricultural activities. When there is no work, they end up working for only Rs 30/- for a full day's labor. Since Bibijaan has no source of income her sons try to help their mother. Bibijaan gets 8 Kg of wheat @ Rs 4/- Kg and 8 kg of rice @ Rs 3/Kg from ration shop since she is beneficiary of Below Poverty Line (BPL) ration scheme.



**Bibijaan Bewa near her kuroiler shed**

For Bibijaan Bewa – Bewa means widow. This is how a widow is called in this predominantly Muslim village. Bibijaan is about 50 years old and lives on her own. She has no land or kitchen plot although the house is her own. Since Bibijaan has no source of income her sons try to help their mother.

Bibijaan had no experience in keeping poultry and decided to keep poultry for the first time seven months ago. She thought it to be something an old woman like her could take up and purchased 5 Kuroiler chicks from a pheriwala. She wanted to earn some income through it as her sons are too poor to look after her. She saw an opportunity in Kuroiler keeping and went on to try it out.

Bibijaan had no experience in keeping poultry and decided to keep poultry for the first time 7 months ago. She thought it to be something an old woman like her could take up as it does not entail hard labor. She took a decision of purchasing 5 Kuroiler chicks from a pheriwala. She wanted to earn some income through it as her sons are too poor to look after her properly. She saw an opportunity in Kuroiler keeping and went on to try it out. Bibijaan's husband had built the shed for birds using mud, bamboo and tiles. Her Kuroiler are already seven months old. The flock comprises of four pullets and one cockerel. Of these only one hen has started laying eggs and has laid three eggs so far. She has eight grand-children and is waiting to get eight eggs to give an egg to each one of them. Later on she would like to sell the eggs to people in the neighborhood. She suffers from high Blood-Pressure and has been advised not to eat eggs.

The kuroiler have grown well and weigh approximately 2 ½ - 3 kg and seem to be healthy. They scavenge the whole day in and around the hut and are put in their shed in the evening. Fear of predators picking up her birds weighs on Bibijaan's mind all the time. For this reason she sometimes keeps the birds under basket in the day time when she cannot keep an eye on them.

Her birds fell ill thrice and she had them examined by Medical Practitioner (homeopath) who gave medicine and charged for the medicine only. She is not aware of veterinary doctor or veterinary medicine. She does not deworm her flock and no multi-vitamins etc are given. The birds scavenge all through the day and are given paddy as supplementary

feed. Since Bibijaan is new entrant in poultry keeping she seeks information from neighbors who have experience of poultry keeping.

Bibijaan does not want to increase her flock-size because she cannot afford to feed them. In her opinion the Kuroilers eat a lot. Moreover she is not keeping good health and cannot undertake more work. She likes to do little work as it helps in keeping her fit and is a way of exercising. Some times she goes to village shops for purchasing ration items but most of the time her sons do the needful.

She did not think of keeping goats because it meant more investment and she would have to take them for grazing. She says-

***“I cannot be seen grazing a goat in fields by my son-in-law?”***

Her biggest fear is her own physical condition which is deteriorating. She spends her free time praying and offering namaz. For her grand sons she desires some kind of salaried jobs while marriage for grand-daughter would be good. She opines that whosoever is bright in academics should be allowed to study. Bibijaan has faith in her kuroilers and is looking forward to her remaining hens to lay eggs and for her to finally earn some money.

### **Case Study Two**

#### **SHAHBANU**

The team met this woman headed household on 17<sup>th</sup> of September 07 in Margram village in Birbhoom District. Sahabanu Bibi is 45 years old woman who has been deserted by husband for another woman. She lives with her daughter Hamida Khatun (16) in a small hut consisting of open kitchen in the veranda and two rooms. The hut is made up of wood, bamboo, mud bricks and has a thatched roof. She is BPL card holder. She has no kitchen garden or yard. Shahbanoo makes living by making puffed rice. She manages to make 8 kg of puffed rice daily. This is bought by people in her neighborhood and she earns Rs 10-15 daily. Her daughter Hamida helps in supplementing household income by rolling beedis. 500 rolls of beedi fetch Rs12-15. She earns approximately Rs 300/- in a month.



Shahbanu displaying her kuroiler

Beedi rolling work is given to women in the village at their homes by agents and ready beedis are taken back by them. The women do not invest anything in this work.

Shahbanu has been keeping poultry birds-Desi for many years. Presently she has 12 Desi birds and 10 Kuroilers. She's a member of SHG and pays Rs 30/- every month to SHG. Eight months back she was presented with 10 Kuroiler chicks by the Panchayat through her SHG. The birds are now eight months old but none have yet started laying eggs. Her Kuroilers had suffered from fowl pox few months ago and she thinks that this could be one possible reason for her birds not to be laying eggs. She admits that so far she has only spent on the Kuroilers and has not gained anything but still refuses to sell them. She feels that they are a gift and should not be sold. The birds will remain with her and their eggs would be sold. She is willing to wait for egg-laying to begin. Shahbanu needs supplementary income and sees Kuroilers as a means to get it. The mother unit person helps Shahbanu by providing mash at her doorstep and also providing information about management, diseases and their control etc.

In Shahbanu's opinion, scavenging and household left over are sufficient for Desi but Kuroilers need to be given mash. She tried keeping the Kuroilers like Desi on scavenging

and kitchen waste but claims that –

***‘Kuroilers attacked my rice grain sack and created a mess’.***

So now she feeds them mash and paddy.

She further opines-

***“These birds also need only hand pump water, dirty drain water is not for them”.***

She houses Kuroilers in side a room and spreads a gunny bag for them to keep warm. Every morning the gunny bag is washed and dried. The ‘Desi’ are kept separately in a mud house made at one end of her verandah. Shahbanu does not give any preventive medicines and goes to Veterinary hospital when her birds fall ill. She has no awareness of bio-security measures and throws the diseased dead birds in the open.

Shahbanu bibi is a widow who got involved into keeping Kuroiler when she received 10 Kuroiler chicks as gift from the Panchayat. Although her Kuroiler are 8 months old she does not perceive them as marketable entities. For her a gift has much greater value than money .So she waits for them to lay eggs so that some income can be generated from sale of eggs. For someone barely managing to make 15-20 Rs a day it would mean a lot.

Shahbanu also keeps two goats. One goat is owned by her while the other is contracted to her. If this goat delivers two kids then she will get one while the other will go to the owner of the goat. If only one is delivered, then it will be sold and money split between them. She prefers keeping goat as monetary returns are more. The goats are also housed inside the hut. She does all the work related to birds and goats. Since there is no man in the household, she has to do out-door work as-well. The mother-unit person helps out by supplying mash at home. Eggs laid by ‘Desi’ birds are sold from home to neighbors. Her daughter helps out with poultry keeping only when Shahbanu is unable to take care of the flock due to medical reasons.

Shahbanu’s health is not too good as she suffers from low BP and has eyesight problem. She prefers going to local Doctor for medical advice than going to the Government hospital. Her biggest worry is her daughter’s marriage and the expenses involved in it. A year and a half ago tragedy struck when she lost her 20 year old son died in a lorry accident. He was the sole bread winner of the family and this blow almost broke Shahbanu’s spirit. At times of need neighbors and relatives living close-by help her. She has food scarcity during the months of Aug, Sep. and Oct. Her neighbors help out if she has nothing to eat. The community is close knit and she is held in high regard even though she is very poor. She feels that person is wealthy if he has land and house. When people look after and help each other she is happy.

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