Document 006 (January 2008)

Poultry based Livelihoods of Rural Poor: Case of Kuroilers in West Bengal

18th December 2007

Workshop Proceedings[1]

Compiled by:
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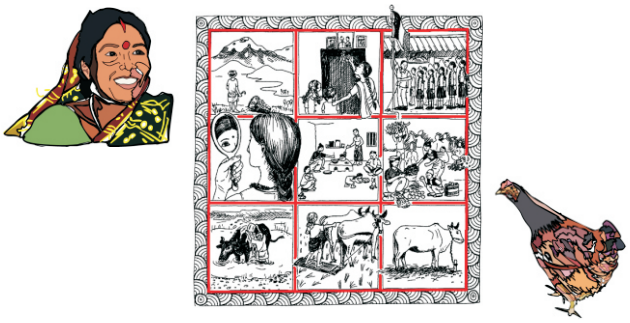


SOUTH ASIA
Pro Poor Livestock Policy Programme
A joint initiative of NDDB and FAO

[1] The presentations and background reading, list of participants and detailed workshop programme are presented in the Completion Report (Document 005 - December 2007)

Foreword

Organising a workshop whereby aiming at involving all relevant actors, of which each sub group has a different background, is a demanding task. Furthermore, to ensure that an adequate sharing of information is achieved and creating an environment wherein a lively and pleasant exchange can take place is another challenge.

Fortunately, the department of Animal Husbandry and Veterinary Services, Government of West Bengal, has been open to the study initiative 'Poultry based livelihoods of rural poor: case of Kuroiler in West Bengal' of the South Asia Pro-Poor Livestock Policy Programme (SA PPLPP) and actively contributed to making the one day workshop on 'sharing the tentative findings' a success.

We hope that the two documents representing the information shared during the workshop by the study team (document 005) and the inputs received from the participants (document 006) will bring you back to the workshop day including the spirit created namely 'backyard poultry farming is an excellent means for poor fe/male farmers to strengthen their livelihoods'.

Meanwhile, we are facing the harsh reality of **Bird Flu** and most of the households whose data we discussed have likely no poultry birds left in their backyard. The least we can do is express our solidarity but that's not enough; as professionals our responsibility goes beyond it and we should seriously and jointly address the question of *"how to strengthen the backyard poultry sector within the context of Bird Flu threats and with the involvement of all actors. It is about ensuring that basics such as 'extension services, bio security measures, vaccination schemes, etc' are put in place; i.e. each actor has to play his/her role to ensure that the fe/male poultry keepers can rear their poultry in a safe and sustainable manner"*.

We hope that we will meet each other to address this question and arrive at innovative strategies to strengthen the backyard poultry sector in West Bengal.

Lucy Maarse,
Regional Team Leader,
SA PPLPP,
New Delhi, 5th February 2008

INTRODUCTION

On **Wednesday, the 18th of December,** a one-day workshop was organised by the South Asia Pro-Poor Livestock Policy Programme (SA PPLPP). Thanks to the excellent cooperation of the Department of Animal Husbandry and Veterinary Services (Deptt. of AH&VS) and the Eastern Regional Office of Keggfarms Private Ltd, all key actors who are directly or indirectly involved in backyard poultry development in West Bengal could timely be identified and invited to the workshop and as a result invitees turned up in large number.

The workshop was opened as early as 9.45 am and a good number of participants remained actively involved till the end of the day. Apart from sharing and receiving feedback on the tentative findings of the in-depth study 'Poultry Based Livelihoods of Rural Poor: case of "Kuroiler" in West Bengal', the unplanned presentation of Prof. S. Pan on 'Current Status of poultry production in West Bengal'[1] helped participants in obtaining a complete overview of the poultry sector in the State. Although participants had different views regarding type of bird (poultry genetic resource) most appropriate for backyard poultry farming (indigenous/traditional, pure breed -Rhode Island Red- and/or synthetic birds –Kuroiler-), all would agree that **much more has to be done to strengthen backyard poultry farming in West Bengal** to start with adequate preventive health service provision. It is very much recognised that each player, whether public, private or civil society oriented, has a role to play while acknowledging the scope for public – private cooperation in this field.

The organisers of the workshop promised to share all the information presented and exchanged during the day with all participants who attended the workshop.
For practical reasons the information is presented in two documents namely:

- "**Completion Report**: Poultry Based Livelihoods of Rural Poor: Case of "Kuroiler" in West Bengal", Document 005 (December 2007). This report is a compilation of all presentations made, provides the list of participants, the workshop programme and background note. It also includes the two papers distributed during the workshop as background reading namely i.) '"Kuroiler": The Ground Realities' and ii.) 'Scope and Space for small poultry production in developing countries'.
- **Proceedings of the Workshop** on 'Poultry Based Livelihoods of Rural Poor: Case of "Kuroiler" in West Bengal'. It takes the reader through the different sessions whereby highlighting the key discussions and main outcomes made.

The two documents together provide the complete information of the workshop.

In this document, first **background** is provided followed by highlighting the **Opening Session**, and thereafter taking us through the **three technical**

[1] The concerned presentation is presented as annex one.

sessions; Technical Session - I: Sharing Findings from the Ground; Technical Session – II: Panel Discussion and finally through the last Technical session (III) '**Lessons learnt and the way forward**'.

1. BACKGROUND

The role of backyard poultry production in sustaining the livelihoods of the rural poor is being increasingly recognised by the development community and particularly in respect of enhancing food and nutrition security, reducing the livelihood vulnerability and promotion of gender equity. It is only recently that the Government of India and some State governments have become more sensitive to the potential offered by this activity and begun to promote backyard poultry through various schemes. Keggfarms Private Ltd. is probably the only private sector organisation that promoted backyard poultry in India through introduction of "Kuroiler" for the last 15 years. This opens up possibilities of nurturing synergistic partnerships among public, private and civil society organisations with the common objective to enhance the livelihoods of the poor.

Keggfarms introduced Kuroiler in 1993 and sold more than a million day-old chicks in the first year itself. By 2005-06 the number reached the figure of 14 million a phenomenal annual growth rate of almost 22% sustained for more than a decade. Kuroiler seems to emerge as the "Bird of Hope" for hundreds of livelihoods. Keggfarms was recently awarded the 'Business India Innovation Awards' under the social entrepreneurship category.

Although Kuroiler is receiving increasing attention over the last few years there are no systematic studies that have analysed its livelihood impact at the village level. To examine its impact in improving poor peoples' livelihoods and to identify areas of policy and programme support for promoting household poultry system as a means of grass root empowerment, SA PPLPP initiated a field study in WB in September 2007. The study covered four districts of WB – east Midnapore, South 24 Parganas, Murshidabad and Jalpaiguri and about 250 households, 50 mother units and 50 vendors were interviewed in the study. A workshop was organised in the premises of the Veterinary College at Kolkata on 18th December 2007, to discuss initial findings of the study.

The main objectives of the workshop are:

1. To share the preliminary findings of the study with key stakeholders.
2. To provide a platform to enhance awareness of the importance of market oriented household poultry as an important livelihood option for the poor.
3. To obtain feedback on the study findings with the objective of providing guidance for further analysis.
4. To identify concrete issues for creating an enabling environment for promotion of backyard poultry production.

2. OPENING SESSION

09.15 – 09.30	Welcome address by **Dr. D.K. Chakraborty**
09.30 – 09.45	Inaugural address by **Dr. S.K. Bandhopadhyay**
09.45 – 10.00	Introduction to SA PPLPP by **Ms. Lucy Maarse**
10.00 – 10.15	Introducing 'Kuroilers' by **Mr. Vinod Kapur**
10.15 – 10.30	Structural changes in global and national poultry production and the space for backyard poultry by **Prof. Vinod Ahuja**

Dr. Meeta Punjabi did the preliminaries by inviting the guests to the workshop and introducing the day's programme.

WELCOME ADDRESS by Dr. D.K. Chakraborty

The Principal Secretary of Animal Husbandry department of Govt. of West Bengal, **Mr. D.K. Chakraborty** delivered the **welcome address** and mentioned that West Bengal is the largest consumer of non-vegetarian food and probably the largest processor of meat. However, only 40% of the requirement of poultry products is produced internally and 60% is imported from other states. Feed cost is high, as most of it is imported from other states, and is a major constraint for profitable poultry production. The Agriculture University has been approached for providing technology for feed production at reasonable cost. Historically, rural poultry development was based on introduction of Rhode Island Red (RIR) bird and introducing Kuroiler is a new approach and has to be extensively tried out in West Bengal. Usefulness of the bird should be assessed on criteria like hardiness, adaptability, higher production and earnings. He hoped the workshop would provide insights regarding 'how far this new bird is beneficial to West Bengal'.

INAUGURAL ADDRESS by Dr. S.K. Bandhopadhyay

Dr. S.K. Bandhopadhyay, Animal Husbandry Commissioner, Govt. of India, while delivering the **inaugural address** expressed the desire to learn more about backyard poultry development.
He drew attention of the participants to some critical issues and observations related to poultry development:

- Poultry is one of the fastest growing sectors in the country (growing @ 10%) and contributing to the economic growth in India. There is however a need to examine whether this growth is inclusive and whether the poor are also benefiting.
- The Government of India has launched several schemes for the benefit of the poor and chosen 'poultry farming' as a good option for livelihood development by providing a source of supplementary income and nutrition security.
- Rural women have benefited from poultry development schemes, particularly the backyard poultry, as it has enabled them to learn total business and finance management, provided supplementary income, improved nutritional status and thus contributing to gender equity.

- Study report on Kuroiler should indicate aspects related to finance (supply, soft credit), regeneration capacity, methods of rearing recommended (scavenging, semi scavenging models), extent of adoption and real benefit to the family.
- Disease resistance of local birds is often referred, however, scientific evidence in this regard seems to be lacking and local breeds are found susceptible to most diseases while extent / degree of effect varies.
- Avian influenza has affected several countries and the World Health Organisation attributes its spread to backyard poultry. Backyard poultry has however a role in economy of the rural poor. He suggested that controlled scavenging might prevent spread of the disease, but more research is needed. However, recommendations should be made depending on the geo-economic conditions, social habits and local resources.

He concluded by wishing the workshop a grand success

INTRODUCING 'KUROILERS' by MR. VINOD KAPUR

Mr. Vinod Kapur, Chairman of Keggfarms introduced his organisation and mentioned that Keggfarms is perhaps the oldest poultry breeding farm, established in 1971 and is a pioneer in introducing broiler bird in India. He expressed pleasure to be part of the workshop. He said that he was looking forward to learn as much as share information on Kuroilers since he is keen that this bird should benefit the rural families. Success is based on empirical assumptions and evidence; the demand for Kuroilers is growing rapidly, people pay for the birds and that indicates the bird is useful.

He articulated his gratification at the initiative taken (by SA PPLPP*)* for documenting the experience and observations systematically and assessing the impact of introduction of Kuroiler birds and he looks forward to learn from the study.

In 1990-91 Keggfarms started studying rural poultry sector in India. The observations showed that more than 3 crore rural households are involved in backyard poultry production and it is a traditional, women centric activity of rural families undertaken as a household chore. It is not a high producing and very remunerative activity but a significant contributor to livelihoods of especially the poor. All rural families do not keep backyard poultry it is common with some communities like Muslims, Tribals and other economically depressed / marginalised communities. It was realised that while commercial poultry made rapid progress in the urban/peri urban areas, the rural sector was left out. Backyard poultry fe/male keepers did not benefit from this development and probably the stage was ready for the Keggfarms's initiative.

The conventional poultry development schemes did not address the reality in the field and attempted to change the system totally and that was not appropriate. Thus the real challenge became clear – there was need to develop a bird that can become part of household activity, add value and income and should be able to live off agricultural and household waste.

However, it should have higher productivity (egg and meat both) than the local bird and look like a local bird (coloured). Thus the need was for a dual-purpose bird. The commercial poultry had done away with dual-purpose bird; it had therefore to be produced synthetically.

Producing the bird is not enough, it has to reach the villages and families and continuous and timely supply at different points has to be ensured. A system was devised to achieve this by introducing a multi tier system of a commercial organisation - from breeding farm to villages to household. From day 1 it had to be a commercially sustainable model at all levels. The system seems to be working as 20 lakh vaccinated chickens every month are supplied to 8-lakh village households in the states of West Bengal, Orissa, Bihar, Jharkhand, East UP, Chattisgarh. The only problem reported is that of mortality due to Ranikhet disease since there seems to be some slip up in vaccination. He mentioned that Kuroiler has no role in rich developed states like Punjab.

Mr Kapoor ended his presentation by stating that they are committed to help the resource poor by developing a production system that enables them to improve livelihood. He added that he eagerly looks forward to know and discuss findings of the study – particularly the constraints/problems since he firmly believes that 'Failure is a great learning'.

INTRODUCTION to SA PPLPP by Ms. Lucy Maarse

Ms. Lucy Maarse, the regional team leader of the South Asia Pro-Poor Livestock Policy Programme (SA PPLPP), introduced the SA PPLPP[2] and informed the participants that it concerns an initiative of the National Dairy Development Board (NDDB) and Food and Agriculture Organization of the United Nations (FAO)[3]. It has started activities in India, Bangladesh and Bhutan through Partnering Institutions such as BAIF in India, BRAC in Bangladesh and Department of Livestock Production in Bhutan. The Mission of the Programme is *"to ensure that the interests of poor fe/male livestock keepers are reflected in local, national and international policies and programmes affecting their livelihoods"*.
The overall goal of SAPPLPP is to contribute to reducing poverty using livestock as the entry point. Programme interventions would be through policy changes and formulations and institutional changes.

She indicated that the programme supported continuous dialoguing and learning from "good practices" to influence livestock related policy and institutional changes. The programme subscribes to three non-negotiables – women are active participants, values of solidarity, transparency and accountability, young people form a distinct group. It follows a process

[2] The concerned Power Point Presentation is presented in 'SA PPLPP Document 005, December 2007', page 10 – 12.
[3] SAPPLPP is envisaged as a long term programme to be implemented in phases and open for others to join. NDDB and the Pro-Poor Livestock Policy Initiative of FAO have agreed on Phase I of the programme, from April 2006 to June 2009, and has so far engaged partners in Bangladesh, India and Bhutan.

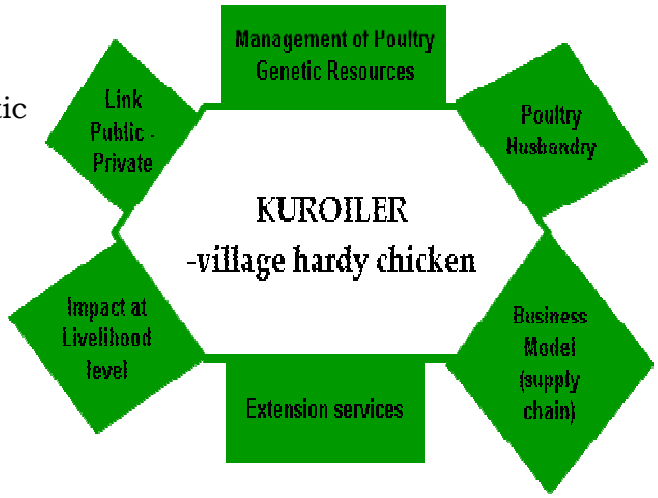
approach and promotes systemic thinking; SA PPLPP promotes "learning" – learning by doing, learning by interacting and internalising concepts.

The following activities have been initiated by PPLPP:

i. In-depth studies: 'Kuroiler'; 'Commons' - Actors involved in developing new insights and functioning as "champions"
ii. Identifying and Documenting Good Practices
iii. Do's and Don'ts Bangladesh - Backyard Poultry Systems and in India - Breeding (large ruminants)
iv. Community of Practices (CoPs) – the CoP on Livestock Policy Development in India is well functioning.
v. Up-scaling lessons learnt: 'Livestock Service Reform Process' in State of Andhra Pradesh
vi. Establishment of "South Asia Platform for Pro-Poor Livestock Development":
    - Aiming at **working together and to speak out together as a voice for smallholder livestock development throughout the region**.
    - Tentative topics identified are:
        - Access to regional and international markets
        - Enabling environment for small holder poultry production
        - Stimulate dialogue among opposing parties: "sentimentalists" versus "rationalists".

Regarding the in-depth study 'Kuroiler', she explained that the study outline follows six defined windows namely:

1. Impact on Livelihoods,
2. Management of Poultry Genetic Resources,
3. Extension Services,
4. Poultry husbandry
5. Business model (supply chain)
6. Link Public - Private



She concluded her presentation with the Motto of SAPPLPP:

"Development of HEALTHY ENVIRONMENTS in which HEALTHY ANIMALS are reared by HEALTHY PEOPLE"

STRUCTURAL CHANGES in GLOBAL and NATIONAL POULTRY PRODUCTION and the SPACE for BACKYARD POULTRY by **Prof. Vinod Ahuja**

Presentation[4] by ***Prof. Vinod Ahuja*** on "Structural changes in global and national poultry production and the space for small-scale poultry" provided a backdrop to the Kuroiler study findings. Highlights of his presentation are indicated below:

- changes in global meat production scenario between 1961 and 2006 show a consistent growth of about 5% in meat production (mainly chicken, pig and cattle meat) and increase in demand for these animal products;
- developing countries from Asia are major contributors (60%) to global meat production, there is regional variation in major type of meat produced e.g. pork in East Asia and poultry in South Asia;
- major contributors to meat in India are Poultry, Buffalo and Cattle.
- main drivers of increased growth in meat production are increased demand (due to growth in population, income and urbanisation), while cheap labour, market liberalisation and improved technologies facilitate growth.
- encouraging small-scale poultry would enhance food and nutrition security for the poor and empower women to be part of larger development processes.
- small scale backyard poultry would enable building on the poor peoples' asset base for poverty alleviation and would be environmentally less damaging.
- besides the direct impact on income generation and nutrition security there is multiplier effect — with fe/male farmers spending increased income on the goods produced in non-tradable, non-agricultural sector, contributing even more to reducing poverty.
- from a development perspective small-scale poultry is very compelling but face higher transaction costs and needs support on aspects such as:
    - investment in research to provide appropriate technology support for improving production efficiency and mechanisms for knowledge transfer;
    - institutional innovation, public-private partnership and level playing field;
    - increased investments in rural infrastructure;
    - streamlining public service delivery systems to support small producers.

He further stated that there are a number of good initiatives on the ground to promote backyard poultry but detailed information about them is lacking.

[4] The concerned Power Point Presentation is presented in 'SA PPLPP Document 005, December 2007', page: 13 – 17.

4. TECHNICAL SESSION I.

Technical Session I: Sharing Findings from the Ground

Chairperson	**Dr. S.K. Bandhopadhyay**
11:00 – 11:45	Overall study design and some results from household survey by **Prof. Vinod Ahuja**
11:45 – 12:30	Going beyond statistics: A more nuanced look at Kuroiler based livelihoods by **Dr. Mamta Dhawan**
12:30 – 1:00	The Kuroiler Value Chain: Impacts on other agents in the chain by **Dr. Meeta Punjabi**

The chairperson for this session was Dr. **Dr. S.K. Bandhopadhyay** and he invited the study team to present methodology and findings of the study.

OVERALL STUDY DESIGN and SOME RESULTS from HOUSEHOLD SURVEY by Prof. Vinod Ahuja

Prof. Vinod Ahuja, the team leader, presented the study design and initial results from household survey. He highlighted motivation and scope of the study and presented research questions. Salient points from his presentation are indicated in the foregoing paragraphs[5].

The **motivation** for this study was provided by two factors:

- potential of village poultry in supporting and enhancing livelihoods of the poor.
- lack of evidence to demonstrate the nature and extent of livelihood support to the rural poor through back yard poultry development.

Scope of the Study and Research questions:

1. **Contribution of 'Kuroiler' in <u>sustaining</u> and <u>enhancing</u> poor peoples' livelihoods?**
   - Contribution to household income
   - Disaggregated by
     - Types of entrepreneurs (rearers/producers, mother units, *pheriwallas*, etc)
     - Types of households (bottom poor, not so poor. . .)
   - <u>Empowerment</u> of women and marginalized communities
   - Nutritional status
   - Overall and disaggregated by men and women; boys and girls

2. **What are key ingredients of Kuroiler's success?**
   - Extension support
   - Input and output supply chain and value addition at each node of supply chain (soft and hard)
   - Breed characteristics
   - Genetic resource management
   - Cost competitiveness

[5] Details can be referred from 'SA PPLPP Document 005, December 2007', page: 18 - 35.

- Public-private linkages
- Area specific characteristics
- Company specific characteristics
- Other distinguishing characteristics
- Policy support/barriers/space

Sampling and area of study:
Sampling considerations were related to:
- Variation in production considering agro-ecological and socio-economic contexts
- Variation in market contexts
- Variation in cultural contexts
- Geographical spread

Survey was carried out in 4 districts of South 24 Parganas, East Midnapore, Murshidabad and Jalpaiguri. Questionnaires were administered to 260 households in 19 villages; 37 Mother Units and 37 Pheriwallas.

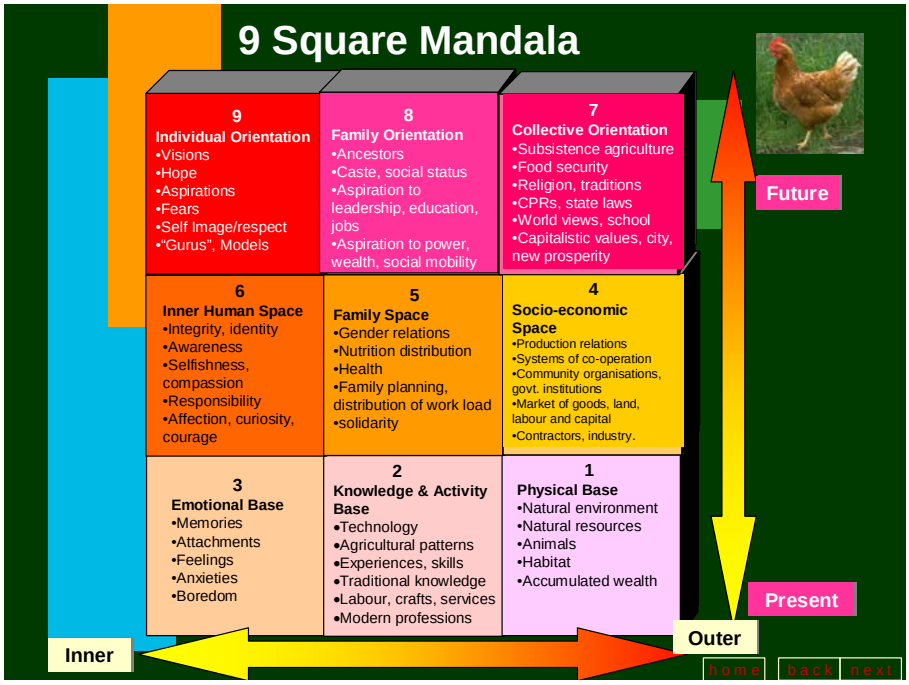
Profile of Sample Households
Percentage of landless households in the sample was 50 in South 24 Parganas, 70 in East Midnapore and 45 in Jalpaiguri and Murshidabad.

Tentative findings
- It was learnt that the households keeping backyard poultry (Kuroiler or Desi birds) are very poor. When comparing the household profiles in terms of household durables with livestock keepers from for instance Orissa, those in West Bengal have very few consumer durables.
- In terms of flock size, those keeping Desi birds have smaller flocks than those keeping 'Kuroiler',
- Mortality in both desi and Kuroiler flocks is relatively high namely between 20 – 25%; there is not pronounced difference between desi versus Kuroiler in terms of mortality rates,
- When birds are sick women have to rely on their own home remedies, consult neighbours or dealers, but never mentioned visiting the govt. animal heath services; traditional treatments are used in 24% of the cases,
- The top 20% households have not enough to eat during short periods of the year, but the bottom 20% have not enough to eat during most part of the year (80%); the month so of July – October are most critical regarding food shortage. Year around food sufficiency is critical for all households.
- Those with the largest food shortage sell more eggs than those with less severe food shortage, the latter households consume more eggs at home; the former can't afford to do so.

The presentation concluded stating that Kuroiler –looks like **a bird of hope**. The elements of short and long term strategy of building on that hope would come out of discussions on the findings?

GOING BEYOND STATISTICS: A MORE NUANCED LOOK at KUROILER BASED LIVELIHOODS by Dr. Mamta Dhawan

Dr. Mamta Dhawan presented **Qualitative Aspects of the Kuroiler Study**[6]. She stated that qualitative analysis was carried out using the **Nine Square Mandala** – a Rural Livelihood Systems framework recommended when one would like to understand livelihood systems. She shortly explained the frame work and the aspects which have been studied within this framework.



Going back to the research questions as presented by Prof Vinod Ahuja, she clarified that the qualitative analysis focused on:

– **Empowerment (women, poor, children)** – **Nutritional status** – **Others (not originally imagined but discovered during the study)**	as part of Research Question I,
– **Sustainability aspects**	as part of Research Question II

The data / information were collected through focussed groups' discussions, individual interviews and detailed case studies. Focussed group discussions were held in 12 villages and interviews were held with 36 households (HHs).

[6] Her presentation is presented in 'SA PPLPP Document 005, December 2007', page: 40 -51; a number of related stories and case studies are given on page 52 – 64.

Some Initial findings are:

- Direct and indirect benefit on nutrition levels of the whole family is through increased consumption of eggs and meat and some of the households keep Kuroilers mainly for home consumption and some households for sales.
- Income derived from the sale of Kuroilers is used by families to purchase foodstuffs not produced at home; with very poor families buying carbohydrates like rice and wheat and less poor protein and a variety of vegetables.

- Some women feel that they are empowered as they generate income for the family, are seen as entrepreneurs in the community, have a voice at home and are able to make decisions within the family.

- Regarding gender dynamics boys and girls are given the same treatment with regard to food distribution at home.
- However, women in the families are the last to benefit from food consumption. In some villages (in Murshidabad) women are restricted from accessing the market.
- Next to buying food items comes investing in education, followed by medical emergencies and lastly social obligations.
- In terms of sustainability, no access to poultry health services and credit are major obstacles while dependency on Kuroiler supplier as another critical aspect.

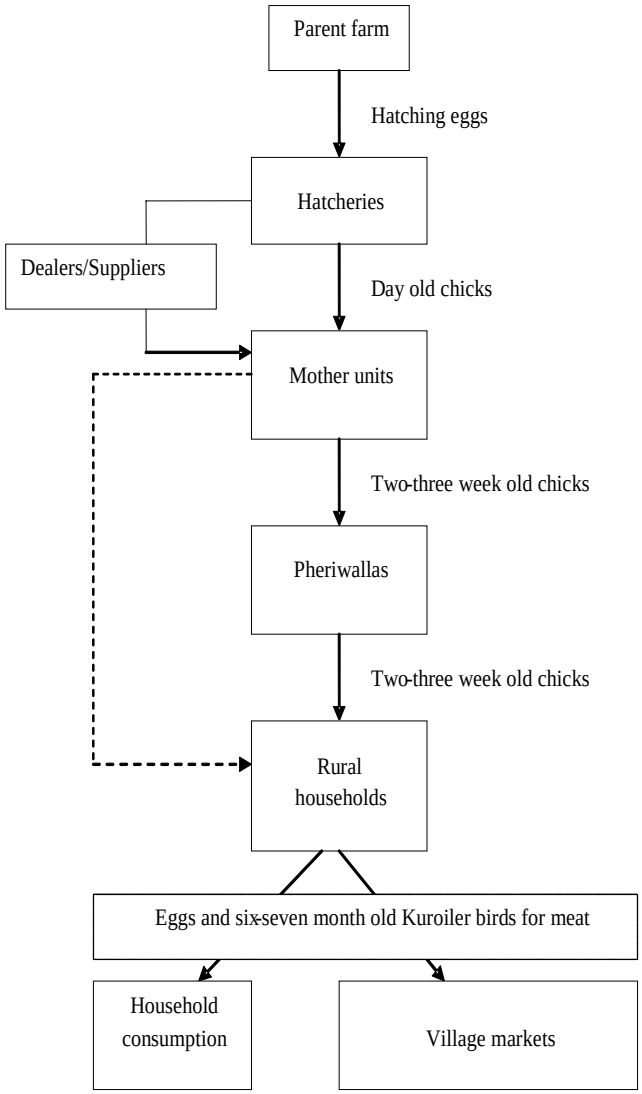
- For poor landless women the keeping of a 'Kuroiler' is a status symbol.
- 'Kuroiler' is liked because easier to sell than a goat; rearing 'Kuroiler' suits a woman's daily time table.

THE KUROILER VALUE CHAIN: IMPACTS on OTHER AGENTS in the CHAIN by Dr. Meeta Punjabi

Dr. Meeta Punjabi gave a brief presentation[7] on the **"Kuroiler Value chain**: Impacts on other agents in the chain".

She explained the chain developed by the Keggfarms to reach small producers in the villages of different districts to ensure continuous supply – according to the demand.

The main actors in the chain are – Dealer, Mother unit and Pheriwallas. The chicks are supplied to mother units through dealers who rear (period variable) and get chicks vaccinated before supplying to fe/male poultry keepers through pheriwallas.



The Keggfarms have used the traditional system of pheriwallas very effectively for supply of chicks.

Meeta mentioned that observations indicate need to pay attention to following aspects:

- Monitoring of vaccination of chicks at mother units
- Credit support to families rearing the birds
- Technical backstopping – for pheriwallas and families.
- Strengthening market link.

[7] Her presentation is presented in 'SA PPLPP Document 005, December 2007', page: 35 – 40.

OPEN DISCUSSIONS ON THE PRESENTATION OF THE STUDY TEAM – summary of discussions

The floor was opened for discussions and feedback and the comments and suggestions from the participants are summarised below:

- Some pointed out that there are a few breeds, developed by research centres, being tried in the country under semi-scavenging model. Reports from Orissa, Karnataka and A.P. are encouraging.
- Though Kuroiler appears to be promising, the economics needs to be studied since 50 to 70% families purchase feed. Comparison of returns from Kuroiler and other bird keeping was suggested to find out benefit from Kuroiler.
- Mortality in these birds is reported to be between 20 to 40%, in some cases despite reported vaccination, the causes should be investigated and desired control measures taken.
- Concern about threat to indigenous breeds and need to take measures to conserve them was expressed by a few participants.
- Marginal role of research institutes with regard to backyard poultry system was pointed out – considering the fact that 52% of the poultry is in this system.
- Time scale and farmer participatory studies were suggested to understand reasons for continuation, discontinuation and changes in flock size.
- The need to analyse market situation was suggested considering the observations that higher weight of Kuroiler posed problems in some cases and increased production of Kuroiler may pose problems in marketing in future.
- Need to strengthen extension / farmer advisory service was suggested to improve production efficiency. The possibility of utilising Pheriwallahs as extension persons after imparting desired training may be explored.
- Linkage of Keggfarms team with the University and Department of Animal Husbandry was suggested for improving the results.
- Poultry heath care does not reach out to backyard poultry keepers. Why does this happen and what should be done to ensure that backyard poultry keepers have access to basic poultry health services?

5. TECHNICAL SESSION II.

Technical Session – II: Panel Discussion

Chairperson	**Dr. Datta Rangnekar**
Panel	Mr. Vinod Kapur, Dr. M.A. Saleque, Dr. Kornel Das, Dr. Dilip Kumar Das, Dr. B.P. Singh, Ms Lucy Maarse

The Chairperson introduced the session by referring to the purpose of the session. He requested the delegates to review the **Lessons learnt and the way forward.** Three issues were opened to the floor for responses from the Panellists and delegates.

- What do we learn from the tentative findings?
- Scope and opportunities for 'Public-Private' partnerships.
- Feedback for further analysis.

Summary of Observations and suggestions from Panel members are as follows:

- All panel members felt that initial observations of the study reveal that Kuroiler rearing has potential to benefit small fe/male poultry keepers.
- It was also felt that it is a good / alternate model of initiative of a private commercial enterprise, in poultry sector, of providing suitable variety of bird along with linkages and accepting social responsibility. However, it is too early to arrive at conclusion and there is need to examine the programme from various angles.
- It was indicated that study report should define the domain in which the Kuroiler system would be beneficial to the fe/male farmers.
- Most of the observations and suggestions made in the open session like investigation and control of mortality, critically examining economics through input-output study, analysis of market considering expected situation in future are relevant and need to be addressed.
- Analyse the programme to examine sustainability and need for Policy support and Structural changes to ensure it.
- The need for providing support in areas like Technical aspects, Credit facility and Marketing was stressed for further expansion and improving profitability. Buy back system may be considered to ensure marketing.
- While considering promoting backyard poultry and maintaining scavenging practice there is need to examine carrying capacity of the village (feed resource).
- Need to examine feasibility of scaling up and replicability of the system in other states was pointed out and to consider how and by whom it can be replicated.
- The threat of degeneration of local birds and need to conserve them was again stressed.
- Need was expressed to find out reasons for non-functioning of Para vets as part of the Government network and ways of establishing convergence / linkage of the Kuroiler supply chain with Department of Animal Husbandry. In this regard, it is advisable that the study team consult with the University.
- Training poultry keeping women and strengthening of the extension programme and use of Pheriwallas as link persons (after training them) was highlighted as a most relevant option which should at least be tested.
- Study of gender dynamics in the project region was emphasised particularly to find out the extent to which women are benefiting and empowered and whether the poultry production would be taken over by men in case it is scaled up.
- The need to understand perception of women about this activity and how they perceive its future was stressed for appropriate planning.
- Some concern was expressed with regard to total dependence of the programme/system on Keggfarms.

Observations and suggestions of Pheriwallas and Mother Unit owner:
Some of the Pheriwallas and a mother unit owner attending the workshop were given a chance to express their experiences and views and make suggestions to improve the system and the salient points are mentioned below:

- The Pheriwallas and Mother Unit Owner find the selling of Kuroiler chicks profitable and a good business. However, some concern was expressed about competition with entry of more Pheriwallas in their area of operation.
- Chick mortality was also expressed as a concern – since it results in net loss.
- All of them found it difficult to take benefit of infrastructure of the Animal Husbandry Department for vaccination of birds and disease investigation.
- It was indicated by the Director of the AH Department that vaccines can be made available in case the mother units place demand in advance.
- Need for training was expressed by all on aspects like poultry diseases and their control and feeding of birds at different stages since fe/male poultry keepers generally ask information on these aspects.

Response from the study team was requested on the observations and suggestions of the participants and panel members on the initial report of the study.

Response from Study Team is summarised below:

- The team leader Dr. Ahuja mentioned that this was an initial report of the study and it was felt that at this stage it would help to get views of the experts whether their approach and research questions were adequate.

- The team expressed thanks to the Secretary and Director and other colleagues from the AH Department of the State Government and from the University for participation and for making useful suggestions.

- The study team is keen to interact with the Department and the University, consider suggestions; however, it has to work within the limitations of the domain of the study.

- Kuroiler is one of the many options available to improve livelihoods and it is peoples' perspective that would decide their choice about the bird as well as about adoption of scavenging or semi-scavenging systems.

- Where relevant the proposed hypothesis / outstanding issues and questions raised will be analysed especially the supply chain, poultry health and extension service needs and market demand.

- Gender dynamics – system patterns with activities of men and women and role of women after more development has taken place will be looked into.

- Flock size has remained small with most families – not more than 10. A major observation is that – market orientation – entrepreneurship has developed.

Additional Observations from some participants:

Prof. Subhransu Pan, Professor, W. B. University of Animal and Fishery Sciences made a brief presentation on "Current Status of Poultry Production Programme in West Bengal" which is presented as annex one.

Representative of PRADAN narrated that their models are used in 7 less developed states where PRADAN works exclusively with the Adivasi tribes and their domain is sustainable livelihoods. He expressed the need to pay attention to some critical aspects like:

- the efficacy of indigenous breeds and its suitability with the existing systems and perception of fe/male poultry keepers also needs to be understood.
- usefulness of Kuroiler for sustainable livelihood is questionable. From reports it is clear that a flock size of 10 chickens gives a family an income of Rs. 8/10 per day only which is – 7% of the total households' income. As per his view, Kuroiler rearing cannot be accepted as a livelihood activity as it does not create a monetary impact. The RPD (return per day) activity is not at par with all different activities and it will remain only at the subsistence level.

With this comment the last technical session started.

6. CLOSING SESSION

Technical Session – III:
Chairperson **Ms Lucy Maarse:**
30 – 5:30 Lets talk more about Kuroiler
-- Elements of a communication strategy --

- Dr. Pan began with a concern that introduction of synthetic birds could spoil indigenous bird population. A valid issue as far as conservation of bio diversity is concerned.
- Dr. Datta Rangnekar commented that sometimes one goes too far in recommending conserving everything. Farming community would conserve a bird that is useful to enhance their livelihood. How much of conservation can be done at institutional level? There is need for a rational approach and systematic plan of breeding. Nothing much has been done to categorise birds, identify and develop selected indigenous breeds of poultry that have some potential. There are 18-20 varieties of Indigenous birds, identified some years ago but the work was not continued.
- Dr. Pan further stated that – there is need to pay attention to the development of heavy dependency of families on one agency when commercial farming through private-public partnership is developed and

this may increase vulnerability of the resource poor families. Some of the favourable features of traditional backyard poultry system are very low dependency and low external input. However, scavenging bird cannot produce 300 eggs a year and hence one has to think of the objective and choose 'Best Bet Approach'.
- He further suggested that for clarity of perception the study should try and define a domain in which the Kuroiler system is likely to be most beneficial.

Dr. Harun Ur Rashid, Senior Technical Manager of BRAC, Bangladesh and SA PPLPP associate for Bangladesh, briefly presented some experiences of BRAC in Bangladesh.

- BRAC developed backyard poultry farming starting with a few breeds. Most common was RRI and used to develop hybrid birds without much investment. BRAC experiences show that with small investment 200 eggs can be produced and with no investment 70 eggs are produced in rural areas.
- Government has no staff to provide services in rural areas. BRAC team trained (one week course) and developed a team of 20,000 volunteer female poultry workers. The trained volunteers collect medicines from government institutions to supply in villages and vaccinate goats and birds. The government institutions were not able to maintain cold chains, as the refrigerators do not work in the night. BRAC repaired all refrigerators.
- He further stated that it is important to know what the standard parameters of sustainable livelihoods are; how it can be achieved and/or improved while implementing development interventions. Not all poultry business leads to sustainable livelihoods; with the bird flu in Bangladesh the small commercial poultry farms are, for instance, suffering most and might not be able to get back in business.

Vote of thanks – Dr. B.R.Patil, Vice President of BAIF and Country Team Coordinator for SA PPLPP India.

He said: **"Amazing to see the contribution and concern focussed on the poor"**. Human face of the technocrats was seen and solidarity of this house to achieve sustainable livelihood development of the resource poor was evident.

This workshop gives an opportunity to begin to think holistically starting from chicks to the market. A study like this can bring out good practices within the livestock sector – poultry, cattle, and maybe goats. It also provides an opportunity to know each others –all key actors active in the smallholder poultry sector of West Bengal are present- and lays the basis for further cooperation.

Other practitioners could use lessons learned from the study for different purposes. Purpose of this workshop was to get feedback for the study and find out whether Kuroiler would contribute to the livelihoods. He appreciated the useful inputs from all participants and thanked all the

delegates, study team and the panellists for their contribution to the workshop.

He hoped that the final analysis would soon be carried out considering the suggestions received and results shared electronically for further feedback.

Prof. Vinod Ahuja specially thanked Mr. Milan Kumar Biswas; the team leader of Keggfarms North-East Unit and his team who have been always been helpful and supportive during the study and extended full cooperation, while at the same time gave all the freedom to the study team.

He also expressed happiness for the critical inputs as these are very useful and would add value to the study.

1

Poultry farming in West Bengal

Current Status of Poultry Production Programme in West Bengal

Prof. Subhransu Pan

W. B. University of Animal and Fishery Sciences

2

Poultry farming in West Bengal

Poultry is one of the fastest growing agro-segments in West Bengal with wide range of investment opportunity starting from 'No Input Farming' to 'Large-scale Industry'.

Poultry farming in West Bengal

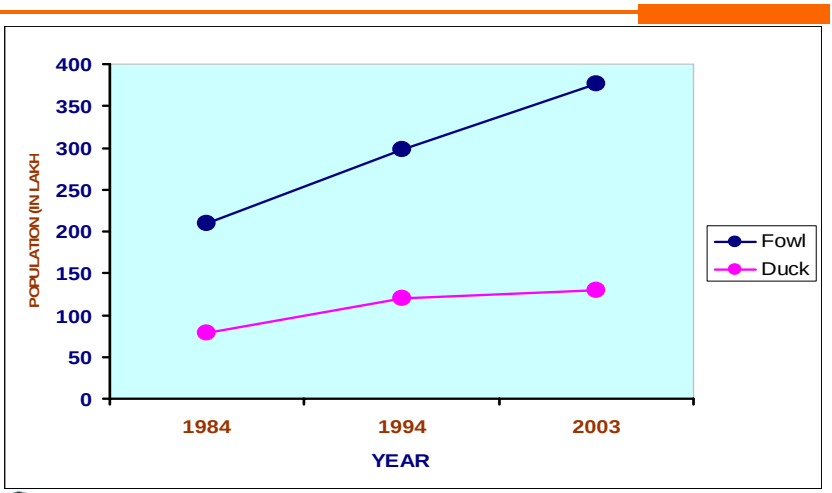
Poultry population (in Lakh)

❖ (Livestock Census – 2003)

Type of bird	Indigenous	Improved	Total
Fowl	283.54 (75.2%)	93.32 (24.8%)	376.86
Duck	125.91 (96.7%)	4.34 (3.3%)	130.24
Turkey	0	0.12	0.12
Quail	0	0.09	0.09
Other poultry	0	3.84	3.84
Total poultry	409.45	101.70	511.15

Poultry farming in West Bengal

Poultry population growth

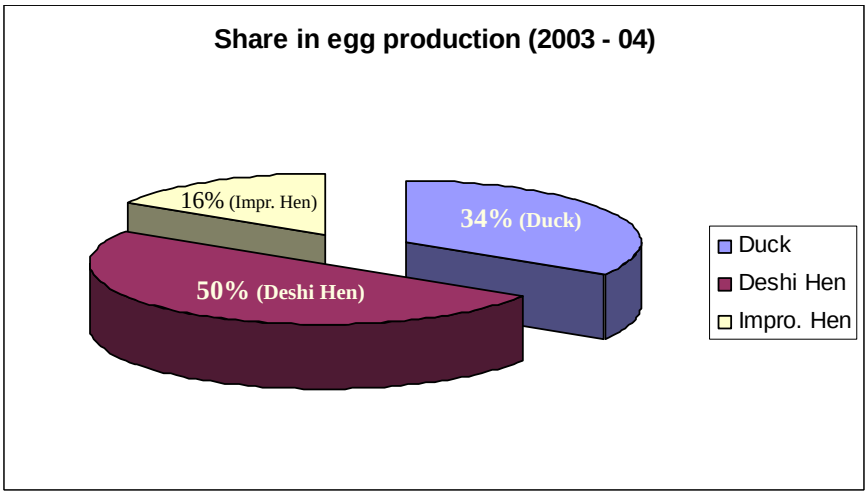


Poultry farming situation – contd….

- 80% of employment in the poultry sector is generated directly by the farmers.
- 48.7% of the livestock farmers keep poultry.
- 20% is engaged in allied activities like feed production, pharmaceuticals, equipments etc.
- Similar numbers are engaged in marketing and other related channels in rural sector.
- For increase of per capita availability of 1 egg or 50 gms. poultry meat, additional 20,000 – 25,000 job opportunities are created (in India).
- It is equivalent to 10% of total output from livestock and 2.8% of total agriculture.

Unique features

- 63% of total poultry faming is done by the Small and Marginal Farmers.
- Density of poultry population is 576 bird per Sq. Km. (149/ sq.km in India)
- More than 75% of total poultry (fowl) population is indigenous type.
- Indigenous fowl contributes 50% of the total egg produced in the State.
- Indigenous duck contributes 34% of the total egg produced.
- 84% of total egg production is by the small and marginal farmers.



Poultry meat contributes 31 % to the total meat production of the State

ARD, Govt. of WB

Unique features – contd….

- At present more than 10 million eggs per day are brought from other States, especially from Andhra Pradesh and Tamil Nadu.
- The State is least dependant on other States for broiler chicken availability.

Unique features – contd….

Constraints in development of commercial layer farms:

(i) Unavailability of major feed ingredients.
(ii) High capital investment.
(iii) Stiff competition with the mega-poultry producers.

Unique features – contd….

State Government is insisting on backyard farming for egg production for its definite advantages.

- ♣ The production system demands no classical inputs.
- ♣ Cost of production is very low.
- ♣ Eggs (from indigenous birds) fetch comparatively higher market price.
- ♣ Chicken (of indigenous bird) is high in demand and better priced.

Production situation

➢ **Requirement** (per head per annum)

Sl. No.	Item	Unit	Recomm-endation	Availa-bility (2003)	% of availa-bility
1.	Egg	No. per annum	183	34	19%
2.	Meat	Gm. Per day	60	16	27%

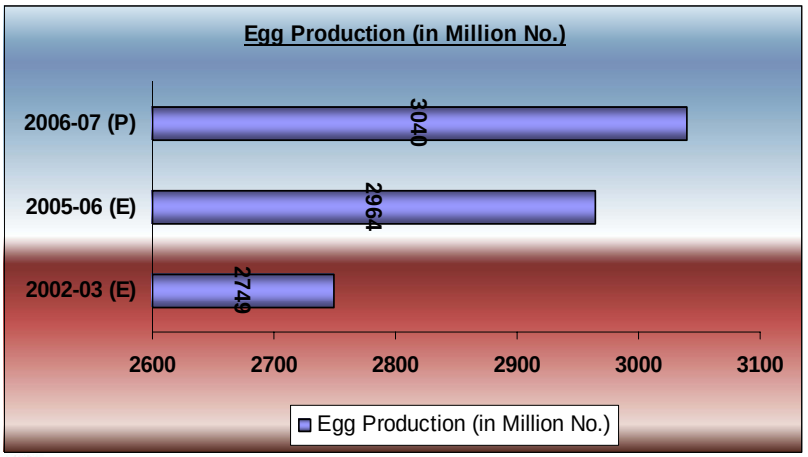
Production situation – contd…

➢ **Production [2006-07 (Provisional)]**

Sl. No.	Item	Unit	Produc-tion	Requirement (as per Govt. of WB)	% of share of produc-tion
1.	Egg	Million No.	3040	8633	35%
2.	Meat	Lakh MT	5.00	9.45	53%

✓In Egg production : Leading State in the Eastern India, 5th position in India.

Production situation – contd…



Production situation – contd…

Poultry Genetic Resources

Poultry farming in West Bengal

Country breed

- Dual purpose. Low productivity (60 – 70 eggs in a year).
- Brown egg colour.
- Quality meat.
- Scavenging. No input bird.
- High disease resistance.
- Needs characterization.
- Self incubator. Progeny available from fertilized eggs.
- Very alert and mobile. Can protect themselves from predators.
- Available all over the States.
- Cocks are high in demand as ornamental & game bird.

Poultry farming in West Bengal

Rhode Island Red

- Specific pure breed declared in early twentieth century.
- Dual purpose. Productivity of 180-200 eggs in a year. 180 eggs in rural areas under backyard keeping.
- Brown egg colour.
- Quality meat.
- Fairly disease resistant.
- Perform very well on scavenging with little supplementation of crop residues.
- Available in all the State Poultry Farms since 2nd Plan period.
- High hatchability/ fertility percentage.
- Moderately mobile.

Rhode Island Red – contd….

- Opportunity for regeneration. Farmers need not to depend on fresh stock.
- Sources of income: (i) sell of eggs (both table and fertile), (ii) breeding cock, (iii) cockerel, (iv) culled bird and (v) chicks.
- No fall in Production performance in the subsequent generation due to genetic cause.
- Good adaptability to the climatic conditions of this State.
- Good breed for grading up of the native stock.

Commercial Layer

- Synthetic or cross type.
- Only egg purpose. Productivity of 300 – 320 eggs in a year.
- Mainly white egg colour.
- Cage farming or Deep litter.
- High disease susceptibility.
- Chicks are costly.
- Regeneration from commercial stocks is not possible.
- Available through private agents.
- High initial investment.

Poultry farming in West Bengal

Commercial Broiler

- Synthetic or cross type.
- Only meat purpose. Productivity: 2.00 kgs BW in 42-45 days.
- F.C.R. – 1.90
- Deep litter or Cage farming.
- High disease susceptibility.
- Chicks are costly.
- Regeneration from commercial stocks is not possible.
- Available through private agents.
- High initial investment with quick return.

Poultry farming in West Bengal

Low Input Technology birds

- Cross/ Synthetic type like *Kalinga Brown, Kuroiler, Vanaraja. Giriraja, Girirani, Grampriya, Krishna Coloured Layer, AVM Coloured Layer* etc.
- Mainly dual purpose.
- Manageable under Intensive/ semi-intensive/ free-range system.
- Moderate disease susceptibility.
- Low input cost.
- Regeneration from commercial stocks not advisable.

Country Duck Breed

- Greenish-white egg colour. Eggs are high in demand.
- Productivity is low
- Scavenging.
- High disease resistance.
- No input bird.
- Available all over the State.
- Needs characterization.
- Population concentration is highest in India.

Khaki Campbell Duck

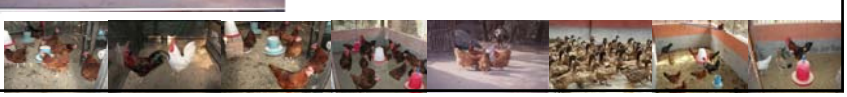
- Definite breed with stable genetic constitution.
- Productivity 200 eggs per year under backyard keeping.
- Whitish egg colour.
- Suitable for both confined and backyard farming.
- Fairly disease resistant.
- Requires less supplementary feeding.
- Available at selected State Poultry Farms in the State.

Commercial bird under backyard

- Selection pressure compromises with hatchability/ fertility/ reproductive performance of cock.
- Regeneration practically not advisable.
- Farmers have to depend on continuous supply of chicks from outside source.
- Farmers may not have sufficient money for this purpose.
- Upgradation of native stock needs stable genetic stock and rigid breeding management. Hence, not feasible with commercial birds under backyard.
- What will happen when commercial houses withdraw their business ?
- Mobility and capacity of self-protection under backyard?

Rural poultry in West Bengal

- 48.7% of households are involved.
- Size of small holdings vary from 3-4 to 15-20 birds.
- Mostly non-descript or RIR. Country duck breed or KC Ducks are also common.
- Basically no or very little input cost.
- Mostly used as a source of additional/ supplementary income generation.
- Dependant upon women member of the family.
- Provides empowerment to the underprivileged women.
- Provides nutrition to the family.



Poultry farming in West Bengal

Special Govt. of WB Programme

Chicks/ Ducklings distribution programme

- Started in 2005-06 with 10 Lakh chicks/ ducklings distribution.
- 20 Lakhs chicks/ ducklings distribution programme started from 2006-07 – to be extended in 11th Plan period.
- Only SHGs with women members are eligible.
- Each SHG with 10 women members.
- Each member with 10-12 chicks/ ducklings of day-old to 28 days.
- Training given to each member.
- SHGs for Nursery/ Mother units are promoted.

Poultry farming in West Bengal

Study report (Govt. of WB)

Chicks distribution programme – 2005-06

- ✓ Districts covered – 18
- ✓ SHG benefited – 9,528
- ✓ SHG members benefited – 9,79,417
- ✓ Mostly RIR chicks distributed.
- ✓ Chicks/ ducklings distributed – 10,34,316
- ✓ Monthly monitory benefit per SHG – Rs. 12,450/-
- ✓ Monthly monitory benefit per SHG member – Rs. 1,236/-.
- ✓ Total asset generation – Rs. 150.00 crores
- ✓ Total man days created – 217.58 Lakh.

Poultry farming in West Bengal

Comparative overview

SL NO.	DESCRIPTION	INDIGENOUS BIRDS	RHODE ISLAND RED BIRDS	COMMERCIAL LAYER BIRDS	COMMERCIAL BROILER BIRDS	LOW INPUT TECHNOLOGY BIRDS
1	Grade on rural specific character	*****	*****	**	***	****
2	Farming system	Backyard	Backyard	Intensive	Intensive	Backyard/ Semi - Intensive
3	Farming purpose	Dual purpose	Dual purpose	Egg	Meat	Dual purpose
4	Environment	Natural	Natural	Precise	Precise	1st month - precise
5	Management	Easy	Easy	Difficult	Difficult	Easy
6	Resistance to diseases	Resistant	Fairly resistant	Very sensitive	Very sensitive	In adults only
7	Input costs	Very low	Low	High	High	Low
8	Egg production/ Year (No.)	80	180-200	300	Nil	220
9	BW of a bird (in kg)	Variable; 1- 1.50 at sexual maturity	2.50 at sexual maturity	2.00 at culling stage	2.00 in 42-45 days	Variable; 1.50 in 12 weeks

Poultry farming in West Bengal

Comparative overview – contd….

SL NO.	DESCRIPTION	INDIGENOUS BIRDS	RHODE ISLAND RED BIRDS	COMMERCIAL LAYER BIRDS	COMMERCIAL BROILER BIRDS	LOW INPUT TECHNOLOGY BIRDS
11.	Selling rate of egg (Rs. / egg)	2.50	2.00	1.50	Nil	2.00
12.	Feed input	Scavenging	Scavenging	Precise & costly	Precise & costly	1st month - precise then scavenging
13.	Beneficiary segment	Individual household	Multi segment	Individual farmer	Individual farmer	Multi segment
14.	Plumage colour	Multi colored	Dark brown	White	White	Multi colored
15.	Colour of eggs	Assorted	Brown	White	Nil	Brown
16.	Initial investment	Very low	Low	High	High	Low
17.	Progeny regeneration	Yes	Yes	No	No	Not advisable