

Good Practice Note

Backyard Poultry Farming Through Self-Help Groups



REGION : South Asia
COUNTRY : India
STATE : West Bengal
DISTRICTS : All

SOUTH ASIA
Pro Poor Livestock Policy Programme
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GOOD PRACTICE OWNER and GOOD PRACTICE CHAMPIONS

A **Good Practice (GP)** Owner is a person/group of individuals and/or institution that plays a crucial role in the GP. Thus, a GP owner understands all the ins and outs of the GP and is often the initiator of GP.

Others involved in the Practice (not considered GP Owners) may be invited to assist in the filtering and writing process. Such persons, who have insights into what makes the GP pro-poor, are better-positioned to help influence policies. Thus, with their thorough understanding of the GP, they (as an individual or as a team) can function as **GP Champions**.

Towards Good Livestock Policies: *Backyard Poultry Farming through Self-Help Groups in West Bengal*

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Acknowledgements

Identification of Good Practices (GPs) goes hand in hand with developing an understanding of pro-poor livestock development, building capacity in documentation and the use of simple tools to sensitize actors, build coalitions and influence policy formulation and implementation.

Through a fairly rigorous and iterative process, the SA PPLPP team developed a set of guidelines* for identifying and preparing GP Notes. Step by step, teams in Bhutan, Bangladesh and India made considerable progress in identifying and capturing potential GPs on various themes – 'Smallholder Poultry', 'Small Ruminants' and 'Livestock and Common Property Resources' - related to poor livestock keepers.

This Good Practice Note is the outcome of collaborative efforts of a number of professionals from different organisations – Subhransu Pan, Department of Animal Production Management, West Bengal University of Animal and Fishery Sciences, Kolkata, Ugo Pica-Ciamarra, Livestock Information Analyst, Animal Production & Health Division (AGA), Food & Agriculture Organisation of the United Nations, Rome, Mamta Dhawan, Senior Veterinary Officer, SA PPLPP, under the able guidance of Ms Lucy Maarse, Regional Team Leader of SA PPLPP.

It all began as a counter to a Good Practice by a private player and slowly took shape of a potential GP. Professor Pan submitted the first draft at the Learning Event 1** where it was thoroughly analysed by the participants. The feedback provided spurred Professor Pan to send in a second draft in July 2008. Our gratitude also goes to Frands Dolberg, Joachim Otte and Prakash Shinde for reviewing the second draft and for providing critical feedback that brought out the gaps in the note.

Professor Pan was then asked to bolster the note with quantitative data as well as information on the impact on the beneficiary households. Since no study / evaluation had been done on its impact, Ugo Pica-Ciamarra and Mamta Dhawan visited West Bengal to carry out an appraisal and get first hand information of the situation on the ground.

We are grateful to the Animal Resources Development Department, Government of West Bengal for assisting in the field work. This field visit brought out the ground realities and helped in understanding the strengths and weaknesses of the Good Practice. The information collated assisted in giving the final touches to the Good Practice Note.

Special thanks are also extended to the poultry keepers of West Bengal for their ready cooperation and unending patience in answering all our queries.

* Concerned guidelines are available at: <http://saplpp.org/mainpage-information-hub>

** Proceedings of the Learning Event "Small Scale Poultry Production", 7th - 9th May 2008 available at: http://saplpp.org/informationhub/learning_event_small_scale-poultry-production-proceedings

1. Introduction

There is evidence that growth in the livestock sector can significantly contribute to economic growth and poverty reduction, because the largest share of the rural poor are partly dependent on livestock for their livelihoods and the demand for food from animal source is increasing relentlessly in developing countries (Ali, 2007; Khan, 2004). There is also evidence that, given pervasive market and institutional imperfections, mainly commercial producers have benefited from the growing markets for animal protein, and that the potential contribution of livestock sector growth to poverty reduction has remained largely untapped (Blench et al., 2003; LID, 1999). India's poultry sector is a case in point. Per capita consumption of poultry meat rose from 0.2 kg in 1970 to 1.6 kg in 2003 (FAO, 2008); growth in the sector has been primarily driven by large-scale commercial farms whilst small farmers and the landless, who form the majority of the poultry producers, have largely been bypassed by this growth (GOI, 2005). In the most recent years, however, the Government of India has recognized the potential of small-scale poultry sector development for poverty reduction (GOI, 2005; 2008).

The Eleventh Five Year Plan (2007-2012) of the Government of India – which is titled 'Inclusive Growth' – stresses that economic growth, including agriculture, should be more balanced and inclusive than it has been so far. It sets a target GDP growth rate of 9 % per year, with agriculture anticipated to grow at 4 % per annum. Within agriculture, the livestock sector is expected to grow at between 6 and 7 % per year, with poultry growing at 10 % per year. 'For growth to be at all inclusive, the agricultural strategy must focus on the 85 % of farmers who are small and marginal, increasingly (especially) female, and who find it difficult to access inputs, credit, and extension or to market output' 'special programmes need to be designed and implemented to enable small farmers to go for high value commercial activities in crop production, dairy, poultry, fisheries, etc.'¹ (GOI, 2007). Investing public resources in livestock and in poultry within livestock, for an inclusive growth of the agricultural sector, could be an effective way to contribute to poverty reduction.

This good practice is based on the premise that promotion of backyard poultry farming can help the State to bridge the gap between demand and supply of eggs and poultry meat as well as generate self-employment to reduce poverty and empower rural women. It reflects on the Family-based Poultry Distribution Schemes of the Government of West Bengal and how these schemes can help in poverty reduction, improve food supply and lead to sustainable development of the rural population.

1.1: Context

The State of West Bengal has a long tradition of backyard poultry keeping. It ranks third in India in terms of poultry population (61 million), records the highest poultry

¹ See also the 2007 National Policy for Farmers

density (683 birds / sq km) and boasts the highest per-capita consumption of eggs in the country (34 eggs / year) (FAO, 2008; GoWB, 2004). *Desi* fowl and duck contributes 50 and 34 % of the total egg production respectively and 84 % of them are produced by small and marginal farmers. Backyard (BY) Poultry farming has been practiced in rural Bengal for centuries, mostly by women, where a small flock (2-10) of *Desi* birds is reared by scavenging on kitchen waste, insects / worms and available crop residues. The stock is uncharacterised both in appearance and genetically. In spite of the low productivity, poultry are an important subsidiary source of nutrition, food security and a valuable source of income for poor households. Indigenous poultry eggs and meat are highly valued for their taste and texture, both in rural and urban markets, and prices per kg live weight can be 50 –100 % higher than that of industrially produced birds (Conroy et al., 2005). Some recognized indigenous breeds (not native to West Bengal) like the Naked Neck are kept as ornamental stock, gaming birds or as a prized possession. The practice of raising poultry is embedded in the culture of West Bengal where around 49% of the rural households belonging to all communities, castes and classes keep poultry. Although the State is home to two recognized indigenous poultry birds - Black Haringhata and Aseel, the majority of the poultry population in rural areas is of the nondescript variety called *Desi*.

Table 1, based on a survey of 80 households by the NDDDB - FAO South Asia Pro-Poor Livestock Policy Programme (2007), illustrates the potential contribution of indigenous poultry (*Desi*) to household's welfare in West Bengal. For comparison, an agricultural labourer earns anywhere between Rs 1,000 to 1,500 per month. .

<i>Average flock size (No. of birds)</i>	7
<i>Birds sold / self consumption (Nos.)</i>	14.8
<i>Average weight of bird (kg)</i>	0.9
<i>Average market price per bird (Rs)</i>	58.6
Total Revenue from Birds (Rs)	780.6
<i>Eggs sold / self consumption (Nos)</i>	195
<i>Average market price per egg (Rs)</i>	2.5
Total revenue from eggs (Rs)	487.5
<i>Feed costs (Rs)</i>	112.1
<i>Medicines / vaccination costs (Rs)</i>	75.9
<i>Other costs (Rs)</i>	93.2
Total costs (Rs)	281.2
Annual profit from poultry per household (Rs)	986.9
<i>*Districts of Jalpaiguri, Midnapore, Murshidabad and South 24 Parganas. Source: elaborated from Ahuja et al (2008a)</i>	

II. The Practice

The poultry sector has been adversely affected by the recent outbreaks of avian influenza in which about 4.6 million birds culled (GO-WB, 2008). As a consequence, there have been bans on poultry exports including to neighbouring States. Despite these two detrimental factors, the Animal Resources Development Department (ARDD) of the Government of West Bengal has continued investments in the poultry sector to achieve its primary objective 'to lift rural masses above poverty level through Animal Resources Developmental activities in each Gram Panchayat' (www.wbgov.com). It is important to note that the concerned department is understaffed and thinly spread at field level, while poultry extension and health services are moderate to poor at all levels as is commonly the situation in all States of India (Birthal et al., 2006; Ramdas and Ghotge, 2005). Notwithstanding, it is remarkable that ARDD makes investments in smallholder poultry as a means to contribute to poverty reduction, because the overall objective is to increase livestock production and productivity.

The Directorate of Animal Resources and Animal Health (DARAH) of the Government of West Bengal (GoWB) implements four typologies of centrally-sponsored government schemes: (1) family-based schemes; (2) goat schemes; (3) poultry schemes; (4) cross-bred cow schemes. These schemes aim at enhancing the contribution of livestock to household nutrition, food security and income, of which one entails the 'Distribution of cocks, drakes and cockerels, etc.' (www.darahwb.org).

The Family-based Poultry Distribution Scheme of West Bengal:

With the aim to empower women socially and economically, the State Government has introduced a Family-based poultry scheme to encourage backyard poultry farming to generate employment as well as provide nutritional security to marginalised and deprived sections of the rural society. Since 2005, DARAH of the GoWB has implemented this State sponsored scheme whereby the 22 State Poultry Farms distribute poultry birds - Rhode Island Red (RIR) (See Box 1) to rural households. The purpose was to establish small-scale, self-sustainable poultry production units that can provide a small but steady income to rural dwellers and contribute to the household nutrition.

Box 1

Rhode Island Red Breed*

According to most accounts, the Rhode Island Red breed was developed by crossing Red Malay Game, Leghorn and Asiatic stock in the mid 1800s. It is a dual purpose medium heavy fowl; used more for egg production than meat production.

They are relatively hardy, handle marginal diets and poor housing conditions better than other breeds and still continue to produce eggs. RIR are probably the best egg layers among the dual purpose breeds. Most Reds show broodiness, but this characteristic has been partially eliminated in some of the best egg production strains. They have rectangular, relatively long bodies, typically dark red in colour. The back is flat and the breast is carried well forward – characteristics, which make it a good meat producing, bird. The plumage of the Rhode Island Red is rich dark or brownish red in colour, evenly distributed over the entire surface and is well glossed. There are two Varieties-Single Comb and Rose Comb. The average weight of cock is 3.5-4kg while a hen weighs 2.5-3 kg. The skin colour is yellow and it lays Brown shelled eggs. They start laying at about twenty-four weeks of age and on an average they lay 180-200 eggs in one laying cycle in scavenging system.

*Chicken Breeds and Varieties (A2880), John L. Skinner, University of Wisconsin-Madison



The objectives of the scheme are²

- To support the subsistence level rural women who have formed the Self Help Groups (SHGs);
- To augment income generation of these SHGs;
- To reduce malnutrition;
- Capacity-building of these SHGs through extension, training etc. pertaining to breeding and brooding, including better animal healthcare;
- To improve the quality of life of the beneficiaries.

The set-up of the scheme is as follows:

⊙ In each fiscal year the Directorate of Animal Resources and Animal Health fixes the programme budget – which totalled Rs 1,463.00 lakhs (about US\$ 3 million) between 2005 and 2008 – and identifies the target Blocks. In order to ensure a minimum and possible adequate provision of animal health services, the Department selects Blocks with at least one Block Animal Health Centre (currently more than 85 % of all Blocks). Since 2004-2005, animal health services are also provided by community animal health workers (*Pranibandhu*³ see Box 2). These were institutionalised with the 2004-2005 State Plan with the objective of having one *Pranibandhu* per Gram Panchayat. Since then, more than 2,850 *Pranibandhus* work at Panchayat level in the State⁴.

Box 2

Rajan Pal – *Pranibandhu*

Rajan Pal became a *Pranibandhu* after undergoing 41/2 month training at State Livestock Farm (Haringhata). Although minimum qualification required is Class VIII, he is a matriculate. Rajan has been a *Pranibandhu* for the past one year and provides basic health care – first aid, AI, vaccination and extension services to all livestock in his *gram* Panchayat. He charges Rs. 2/goat, Rs. 10/cow, Rs 0.50/chicken as service charge for vaccinating and Rs. 50 for AI. Vaccines are procured free of cost from the Veterinary Hospital in the Block. He reports to the BLDO and is in constant touch with Livestock Development Assistant. Rajan confessed that he lays more stress on large ruminant and AI work since margin of profit is more compared to other livestock/small animals. Moreover attractive incentive packages offered by the ARDD are linked with the number of Artificial inseminations performed leading to emphasis on Large Ruminants at cost of poultry and small ruminants. At times, he even vaccinates chicken free of cost since Rs 1-2 are too less to bother about. In a month, Rajan is able to earn around Rs. 2,000/.

⊙ Within each Block, the local Gram Panchayats select the target beneficiaries, provided that they are members of a female Self-help Group. Each member receives day-old chicks (DOCs), 10 per member plus 2 to cater for losses, as well as feed for rearing them to the age of 4 weeks. After this, the birds are expected to scavenge for their feed. Beneficiaries pay Rs 1/- per DOC to the Block Livestock Development Officer.

⊙ The distributed DOCs are both Rhode Island Red (RIR) chicks and Khaki Campbell (KC) ducklings. These exotic breeds have been used in India over a long period of time and have got acclimatised to local conditions. They are widely available and have proved to be more productive than indigenous chicken and ducks, under scavenging or semi-scavenging conditions.

⊙ To better ensure the scheme's sustainability, the DARA has been simultaneously implementing a 'Poultry Rearing Units Scheme', which is expected to reduce mortality rates in DOCs. Selected SHGs / members of SHGs are given 5-7 days training and also provided with feeders, waterers and other equipment necessary to establish small scale brooding units free of charge. Once the infrastructure is established, then 250-300 DOCs are distributed to them. Along with it, four weeks feed is also given to raise them before they are distributed to beneficiary households.

² www.wbgov.com

³ Self Employed, trained rural youth to provide intensive veterinary care at farmers' doorstep.

⁴ State animal resources and its development
http://www.wbgov.com/BanglarMukh/Download?FilePath=/alfresco/d/d/workspace/SpacesStore/096e5be6-dea7-436b-a342-27ca8dd18dc5/Chap-p_02_08_%2020.pdf

2.1 Communities reached and estimated number of households involved

The scheme has reached out to women from below the poverty line households belonging to schedule castes, schedule tribes and landless households in rural West Bengal. Since 2005, the Government is implementing the RIR distribution scheme through SHGs under the 'National Rural Employment Guarantee Scheme' (NREGS) and 'Swarnjayanti Gram Swarozgar Yojana' (SGSY). **Between 2005 and 2008, about 5 million birds have been distributed to around 500,000 households**, which allegedly makes the Poultry Distribution Scheme the largest poultry programme in India, if not worldwide.

Box 3: Zaida Bibi

Zaida Bibi lives in a kutchha hut in Amdanga village with her husband and 3 children. They are landless and source of livelihood is through farm labour on daily wages. Employment is available for 15-20 days in a month.

Zaida supplements income through rearing goat and poultry. She is a member of SHG and recipient of 12 RIR chicks from Government Scheme. Zaida has always reared *Desi* birds and presently uses them to hatch RIR eggs.

Zaida sold 9 RIR birds (weighing 700 gm each) at Eid for Rs. 700/- since she needed money to meet expenses related to the festival. Eggs laid by two RIR hens were hatched by *Desi* hen resulting in 12 chicks. She is happy that while RIR hens are good layers, *Desi* hens are good brooders and she is able to increase her flock of chicken. Now she has a steady source of small income from sale of eggs and chicken that helps her to take care of educational expenses of her school going children. Moreover, with the availability of eggs, house hold nutrition has also improved.

III. Impact of this Good Practice⁵

DARAH has been implementing the Poultry Distribution Scheme on a vast scale in rural West Bengal, with RIR chicks being distributed in a far larger number than KC ducklings to beneficiary SHGs. Beneficiary households have increased their consumption of eggs, as RIR birds are more productive than local birds (*Desi*), and many now obtain a steady, though small, flow of income through the regular sale of surplus eggs, which fetch a market price of Rs. 2 to 4 per egg; the total gross monthly cash income from eggs per beneficiary household ranges between Rs. 120 to 720 (Pica-Ciamarra and Dhawan, 2009). Beneficiary households also sell live birds, at a price ranging between Rs 60 to 100 / kg live wt. Live birds are usually marketed to meet specific expenditure, such as to pay for medical or school fees for children, buy small inventory items, production equipment etc. Only few households have started selling birds on a regular basis.

Women have been traditionally responsible for both raising poultry birds and marketing surplus eggs. Hence, they benefit more than men from the scheme as women SHG's have been targeted as beneficiaries. However, men remain responsible for selling live birds, when market transactions involve a relatively significant transfer of wealth or when the sale has to be made from the local village market. Moreover, the scheme also makes a small contribution to the income of *Pranibandhus* (para-veterinarians) who provide basic animal health care to the poultry.

DARAH have been monitoring the implementation of the Poultry Distribution Scheme and have evaluated its impact on a sample of beneficiary households.

A Cost Benefit analysis indicates that the scheme works well. Beneficiary households are more food secure and possibly get a steady flow of income from their poultry birds. The benefits of the programme definitely exceed its public costs, making it an effective means to contribute to poverty reduction in rural West Bengal. These figures, however, do not take into account unit

Table 2:Details of programme costs (one time) and benefits (annual) per beneficiary household (Rs)

Item	Rs per 12 RIR chick	Rs per 12 KC duckling
Birds	108.00	144.00
Vaccination	18.00	12.00
Packaging	18.00	22.00
Transporting	12.00	13.00
Brooding	24.00	24.00
Feed	69.60	225.00
Total Cost	249.60	440.00
Eggs / Poultry meat home consumption	115.00	115.00
Cash income from poultry	510.00	510.00
Benefit / cost ratio	2.50	1.42

Source : Government of West Bengal, Memorandum No. 3/28-AR&AH/4A-18/2005; and 316/28-AR/2G-497/2005

⁵ NDDDB-FAO, PPLPI-FAO and the West Bengal University of Animal and Fishery Sciences undertook a Rapid Rural Appraisal mission in December 2008 to gain a deeper understanding of the Family-based Poultry Distribution Scheme of the Government of West Bengal. Semi-structured interviews were carried out with individual beneficiary households (10), Self-help Groups (4), Block Livestock Development Officers (4), Livestock Development Assistants (1) and Pranibandhus (1) in 5 blocks located in the Districts of North 24 Parganas, South 24 Parganas and Howrah. The State Poultry Farm of Tolligunj was also visited

costs of Rs 380/- for 1 day training to 10 SHG members while Rs 460/- for 5 day training of two members of the SHG for brooding of DOC.

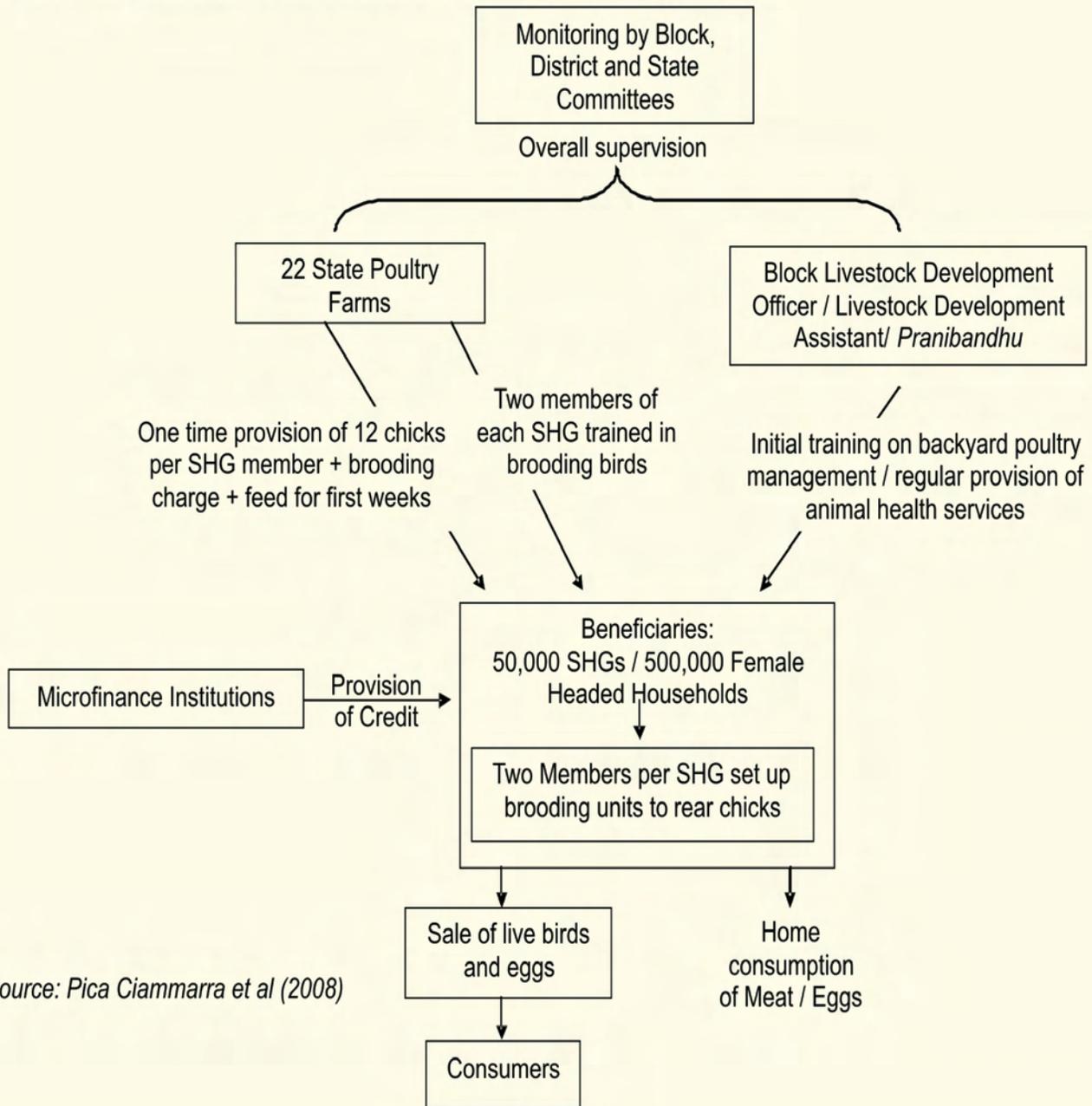
3.1 Actors involved and their relationships

The State sponsored scheme has committees comprising of a number of officials (Annexure 1) responsible at State, District and Block level to ensure smooth conduct of the scheme. These committees hold regular meetings to assess progress of the scheme. The beneficiary SHGs are chosen by the Gram Panchayat based on the Below Poverty Line status of their members. BLDO may or may not be consulted in selecting the beneficiaries. Once the beneficiaries are selected, the BLDO conducts one to two days training on basics of poultry husbandry wherein the women are made aware of the importance of balanced feeding, housing, clean drinking water, preventive health care etc. A simple booklet covering these aspects in Bengali is also distributed. The training is free of cost to the beneficiaries. There is also provision of advanced training of 1 - 2 members of the SHG on Brooding management in one of the State poultry farms.

The relevant State Poultry Farm delivers the DOCs to the BLDO. They are then collected by the beneficiary SHGs after they have undergone the initial training. Although the travel costs are covered by the programme, Rs 1 per DOC is paid by the beneficiary SHG to the BLDO. Each beneficiary receives 10 DOC and 2 extra to cater for the losses. Being members of SHGs allows the women to access micro credit where peer group pressure serves as collateral, thereby giving them the possibility of paying for additional feed or animal health services.

The BLDO also oversees delivery of health services to the beneficiaries. The Livestock Development Assistants supervise and advise while *Pranibandhus* are responsible to provide veterinary care at their doorsteps. *Pranibandhus* charge a nominal fee for their services while the LDA being an employee of the government provides services free of cost. Together they ensure timely vaccinations, de-worming, de-lousing and first aid. Extension messages also reach the beneficiaries through the *Pranibandhus*.

Figure 1: Diagrammatic Representation of the Poultry Distribution Scheme



Source: Pica Ciammarra et al (2008)

IV. How can the Practice be further Improved?

A Rapid Rural Appraisal conducted by SA PPLPP and PPLPPI largely substantiates the results of the preliminary assessment of the Poultry Distribution Scheme carried out by the State Government of West Bengal. It suggests that the benefits of the scheme are possibly higher than the costs. However, the areas for improvements were also identified.

⊙ Both RIR and KC birds are less agile than indigenous poultry breeds and all beneficiary households had to build shelters / cages for birds to avoid predation. However, keeping RIR and KC birds confined is hardly profitable as the feed conversion rate of the RIR is higher than the broiler or even hybrid birds. Consequently, the monthly net value of the produced eggs is barely enough to cover the cost of the feed may turn out a loss when family labour and fixed costs (e.g. shelters) are accounted for. An analysis of the economics of poultry-keeping for a sample of beneficiary households would help clarify this point better. In any case, the scheme could be certainly improved if the beneficiary households were selected among those who can keep birds under scavenging or semi-scavenging conditions and/or have access to some free sources of feed (e.g. land / ponds).

⊙ Beneficiary households with previous experience in poultry keeping are more likely to establish small-scale, self-sustainable poultry production units than new entrants to poultry keeping. The scheme could be improved if beneficiary households were given better training in poultry management and/or if they were selected from amongst those with previous experience in poultry keeping. *Ceteris paribus*, the former option would entail increased outlays for the DARA, whereas the latter would involve a trade-off between equity and efficiency, as women with no experience in poultry-keeping would be no longer eligible as beneficiaries.

⊙ Despite the scheme being implemented in areas that are purportedly well covered by animal health services and birds that are vaccinated on a regular basis, there are still outbreaks of Newcastle, fowl-pox and other diseases that contribute to high mortality rate in the birds. The fact is that animal health institutions tend to prioritise large ruminants over small ruminants and poultry. *Pranibandhus* – who are principally trained in artificial insemination and primary animal health care for large/small ruminants – rarely, consider poultry as a significant source of income. For instance, they often provide bird vaccinations for free rather than charging the 50 paise (1/2 Rs) fee set by the Government. Some institutional changes⁶ are necessary to re-orient the focus of the provision of animal health services. *Pranibandhus* must realise that the more the scheme is successful the more will poultry become a significant source of income for them. The vaccination of 10 birds generates revenue equal to the vaccination of 2.5 goats or 0.5 cows and in rural villages the number of birds is higher than that of goats and cows. Moreover, maintenance of cold chain (especially for Ranikhet vaccine) in rural conditions where electricity is often not available to store in refrigerators or sourcing ice is a

⁶ Poultry Vaccinators' scheme of BRAC documented as BDGP01-'Mitigating Diseases and saving valuable Assets' available at <http://saplpp.org/go/odpractices/small-holder-poultry/BDGP01-mitigating-diseases-and-saving-valuable-assets/>

major hindrance. The other problem faced is the wastage of unused vaccine as the smallest vial available is of 200 doses in case of R2B while F1 vaccine is available in 100 dose vials.

© Since RIR and KC birds are good layers and poor brooders. Only households with some indigenous hens for brooding have been able to establish self-sustainable poultry production units, whereas the others had to rely on the DARA for the delivery of additional DOCs. Some households, in effect, have been given DOCs more than one time. Whether the continuous distribution of birds at a subsidized rate to rural households is good is debatable because: (i) it would transform the scheme in a wealth transfer programme, which is neither self-sustainable nor has been proved to be the most effective way to contribute to inclusive economic growth/poverty reduction; (ii) the majority of beneficiary households have appreciated the profitability of backyard poultry keeping and are now willing to pay for DOCs at market price, i.e. about Rs 9/chick vis-à-vis the current subsidised price of Rs 1/chick; (iii) when subsidy is provided often the needy are overlooked but those close to decision makers benefit from the gifts. In the medium to long term, therefore, the scheme could shift its focus from subsidising the production and distribution of DOCs to the delivery of poultry-related public goods such as appropriate training for beneficiary households and better quality / coverage of preventive and curative animal health services with the State Poultry Farms and other private companies (competing for) supplying DOCs to farmers at market prices.

© Small scale brooding units under the 'Poultry Rearing Units Scheme' have yet to be established in rural areas, which will be critical to reduce the mortality of DOCs as well as to create further employment for the poor. In this regard, an example to emulate is of Mother Units operated successfully by small scale rural entrepreneurs. They receive DOC of improved birds (Kuroiler) from a private company and sell it all over rural West Bengal through vendors (Ahuja et al 2008). Although the market feasibility of a three-tier supply chain involving hatcheries-brooding units-farmers has been found to be successful in the case of Kuroiler, it would be useful to evaluate before pushing this scheme further. The risk of establishing brooding units which have neither access to a regular supply of chicks nor to a regular market for the grown birds is very high.

V. Lessons Learnt

1. Selection and training of beneficiaries is crucial for success of backyard poultry schemes as a source of livelihood.
2. When promoting scavenging birds, the right birds needs to be chosen, while presence of scavenging area at household level is crucial. Prior knowledge of keeping poultry plays an important role in success or failure of the programme.
3. A detailed cost benefit analysis should be carried out where hidden costs of providing night shelter, feeders etc as well as of subsidized inputs (DOC, vaccines etc.) should be worked out. Beneficiaries should be involved in simple cost – benefit calculations whereby they can compare their current indigenous stock with RIR or any other commercial bird available on the market. This would also ensure that only genuinely interested women continue with the programme.
4. Receiving DOC at subsidized rates without any accountability leads to lack of proper care and management which results in closure of the enterprise with consumption/sale of one flock. When the DOC are paid for, sense of ownership is more pronounced and only genuine women take up poultry keeping resulting in higher success rate.
5. Though RIR has the advantage of producing more number of eggs and has adapted to local agro-climatic conditions, the choice of bird needs to be reviewed as broodiness is lesser than the indigenous birds, making beneficiaries dependent on the State for DOC. Moreover, problem of predation forces building of shelters which the beneficiaries can ill afford. The right choice of bird remains crucial and women should be exposed to advantages and disadvantages of different birds available (indigenous/desi, pure breeds, commercial hybrids etc.)
6. Timely delivery of animal health care is needed if the backyard poultry-keeping has to be a viable enterprise. In spite of the provision of an inbuilt animal health support system in the scheme, birds still die of Ranikhet disease and fowl pox indicating breakdown in the delivery of these services. The poultry rearers are willing to pay for the health services, if made available at times of need, which is not the case. In this context, the endemic presence of Bird Flu needs adequate attention so that adequate preventive measures can be taken, while preparedness for outbreaks is another important aspect.
7. In spite of 1 day training, chick mortality is high in the first 4 weeks at the household's levels. To establish brooding units first and then distributing chicks would help to arrest this problem.
8. Institutional changes are needed to reorient *Pranibandhus* as they do not perceive poultry and small ruminants important enough to invest their time on and focus remains on AI in large ruminants. Moreover, they are not available in most villages. One might consider differentiating 'animal workers for large and small ruminants', creation of a legal and referral framework for these workers and concentrating on timely availability of inputs.
9. State Hatchery's delivery chain is confined to block offices while sourcing quality DOC remains a major constraint for the poultry rearers. It is not cost effective to get chicks from the hatchery when long distances are involved. There are private players in West Bengal that have supply chains reaching out to far flung remote areas to take care of DOC. Consequently, the government can then focus on providing basic vaccinations and health care. Forging Public Private Partnerships would help solve the problem. Private players too can produce DOC of a particular type (RIR, for instance) when given the order.

VI. Conclusion

This Good Practice presented some new empirical evidence that small-scale poultry production can significantly contribute to poverty reduction in the State when based on a centrally-sponsored family-based scheme whereby the GoWB distributes poultry birds to SHGs. Developing and breeding a hardy bird and related distribution of day-old chicks on a limited scale to farmers has been the major traditional policy of many Indian states. However, this is possibly one of the largest public sector interventions in smallholder poultry sector.

There are innovative elements prevalent in the implementation of the scheme by the GoWB. The first is that birds are distributed only to members of SHGs and not to individual farmers. The second is that two members in each SHG are trained to properly manage brooding units to rear day-old chicks so as to guarantee that healthy 3-4 week old chicks protected against major diseases are distributed to the members. Thirdly, credit service activities are initiated and sustained by the SHG – partly through liaising with other Schemes of Rural Development Department – and through income from brooding unit (SHG level) and poultry rearing (HH level). A well organized SHG can afford to purchase new DOCs, for instance.

Preliminary data indicates that the scheme is highly bankable. This poses questions on whether the Government should simply scale it up or rather look for some sort of public-private partnership to expand its coverage and allocate the saved resources towards improved efficiency in the provision of animal health and extension services to small poultry farmers. The West Bengal's family-based Scheme could be a source of ideas and inspiration for Indian policy makers, who pledge that increased efforts will be made to create an enabling environment which is necessary to promote an equitable and pro-poor development of the smallholder poultry sector in India.

Annexure 1: Actors involved in different Committees responsible for the Scheme

State Level Committee:

1. Principal Secretary, ARD Department, Government of West Bengal
2. Joint Secretary, -do-
3. OSD and Dy. Secretary, - do-.
4. Director, AH & VS, -do-. (Convenor)
5. Additional Director, -do-.
6. Managing Director, West Bengal Livestock Development Corporation.
7. Managing Director, West Bengal Dairy-Poultry Corporation.

District Level Committee:

1. Sabhadhipati, Zila Parishad
2. District Magistrate
3. Karmadhaksya, Zila Parishad
4. Directorate Officer in Charge of the District
5. Project Officer, DRDC
6. Deputy Director, ARD Department (Convenor).

Block Level Committee:

1. Sabhapati, Panchayat Samati
2. Karmadhakshya, Panchayat Samati
3. Block Livestock Development Officer (Convenor)
4. Veterinary Officer of BAHC and ABAHC

Executing Agencies:

1. Directorate of Animal Husbandry & Veterinary Services.
2. West Bengal Dairy & Poultry Development Corporation Ltd.
3. West Bengal Livestock Development Corporation Ltd.

Village Level:

1. *Pranibandhus*
2. Women poultry rearers as members of Self Help Groups

References

- Ahuja V., Dhawan M., Punjabi M., Maarse L. (2008a) Economics of village poultry. Summary. Mimeo. NDDB-FAO South Asia Pro-Poor Livestock Policy Programme, New Delhi Available at http://saplpp.org/informationhub/copy_of_reader_learning_event2_common_property-resources-livestock-good-practices
- Ahuja V., Dhawan M., Punjabi M., Maarse L. (2008b)-Poultry based livelihoods of rural poor: case of Kuroiler in West Bengal. Available at <http://saplpp.org/informationhub/doc012-poultry-livelihoods-rural-poor-kuroiler-west-bengal-study-report>
- Ali J. (2007) Structural Changes in Food Consumption and Nutritional Intake from Livestock Products in India. *South Asia Research*, 27(2): 137-151.
- Birthal P.S., V.K. Taneja, W. Thorpe, (2006) Smallholder Livestock Production in India: Opportunities and Challenges. Proceedings 14, National Centre for Agricultural Economics and Policy Research, International Livestock Research Institute, Delhi, India, Nairobi, Kenya.
- Blench R., R. Chapman, T. Slaymaker (2003) A Study of the Role of Livestock in Poverty Reduction Strategy Papers (PRSPs). PPLPI Working Paper No.1, FAO, Rome.
- Conroy C., N. Sparks, D. Chandrasekaran, A. Sharma, D. Shindey, L.R. Singh, A. Natarajan, K. Anitha (2005) Improving backyard poultry-keeping: a case study from India. Paper no. 146, Agricultural Research and Extension Network (AgREN).
- FAO (2008) www.faostat.fao.org
- GoI (2002) Tenth Five Year Plan (2002-2007). Planning Commission, Government of India.
- GoI (2005) Mid Term Appraisal of the Tenth Five Year Plan (2002-2007). Planning Commission, Government of India.
- GoI (2006) Report of the Working Group on Animal Husbandry and Dairying for the Eleventh Five Year Plan (2007-2012). Planning Commission, Government of India.
- GoI (2007) Eleventh Five Year Plan (2007-2012). Planning Commission, Government of India.
- GOI (2008) National Livestock Policy 2008. Department of Animal Husbandry, Dairying and Fisheries. Ministry of Agriculture. Government of India.
- GoWB (2004) West Bengal Human Development Report 2004. Development and Planning Department, Government of West Bengal, Kolkata.
- GO-WB (2008) Bird Flu Press Release, 06 07 08. Animal Resources Development Department, Government of West Bengal, Kolkata.
- Khan A.A. (2004) Livestock Revolution in India: Its Impact and Policy Response. *South Asia Research*, 24(2): 99-122
- LID (Livestock in Development) (1999) Livestock in Poverty-Focused Development. Livestock in Development, Crewkerne, UK.
- Pica-Ciamarra U. and Dhawan M.(2009) A Rapid Rural Appraisal of the Family-based Poultry Distribution Scheme of West Bengal
- Pica-Ciamarra U., Pan S., Dhawan M., Maarse L.(2008) Small scale poultry production systems and poverty reduction. Evidence from India and West Bengal
- Ramdas SR and NS Ghotge (2005) Bank on Hooves, Your companion to holistic animal health care. Anthra, Secunderabad, Pune, India.

Abbreviations

ABAHC	Additional Block Animal Health Centre
ARDD	Animal Resource Development Department
BAHC	Block Animal Health Centre
BLDO	Block Livestock Development Office
DOC	Day Old Chicks
DRDC	District Rural Development Cell
FAO	Food and Agricultural Organisation of the United Nations
GOI	Government of India
GoWB	Government of West Bengal
HH	Households
KC	Khaki Campbell
LDA	Livestock Development Assistant
NDDB	National Dairy Development Board
NREGS	National Rural Employment Guarantee Scheme
PPLPI	Pro Poor Livestock Policy Initiative
RIR	Rhode Island Red
SA PPLPP	South Asia Pro Poor Livestock Policy Programme
SGSY	Swarnjayanti Gram Swarozgar Yojana
SHG	Self Help Group

Photo Gallery



Candling of RIR Eggs at Hatchery



RIR Parent Stock at State Hatchery



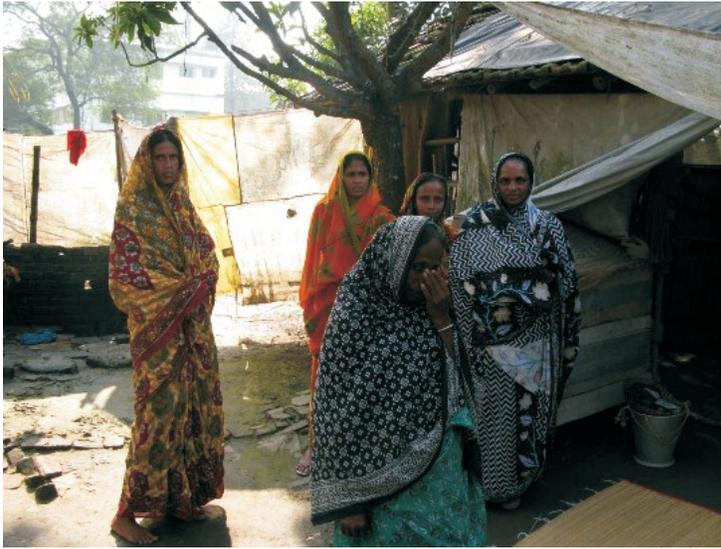
Low cost Shelter built from Locally available material to House RIR Flock



RIR Bird Scavenging in the Paddy Fields



RIR Hens Laying Eggs in Nests made out of Wood



Women Beneficiaries are Members of Self-Help Groups (SHG)



SHG Member selected to start a Brooding Unit



***Pranibandhu* with a Beneficiary**

The NDDB-FAO **South Asia Pro-Poor Livestock Policy Programme** (SA-PPLPP) SA PPLPP is a unique livestock development program that aims to 'to ensure that the interests of poor livestock keepers are reflected in national as well as international policies and programs affecting their livelihoods'. It endeavors to do so by a) creating spaces for and facilitating dialogue among the actors playing a direct and indirect role in the livestock sector of South Asia, and b) drawing from and using lessons from field experiences to influence livestock-related policies, programmatic and institutional changes towards the benefit of poor fe/male livestock keepers in the region.

To access SA PPLPP publications and other information resources, please visit our website at <http://www.sapplpp.org>

Department of Animal Resources Development, Government of West Bengal is the apex agency responsible for all the livestock in the State, including, cattle, goats, poultry and fisheries. Apart from providing veterinary services, it also runs various schemes like duck and poultry rearing, distribution of ram/buck, goat and sheep rearing etc., for the benefit of the rural poor thereby enhancing their livelihoods and nutritional security.

For more information kindly visit their website at <http://www.darahwb.org>

About this Good Practice

The Scheme 'Distribution of cocks, drakes and cockerels, etc.' involves the distribution of Rhode Island Red (RIR) chickens and Khaki Campbell (KC) ducks to rural households. This is a centrally-sponsored family-based Scheme wherein the

Department of Animal Resources Development, Government of West Bengal distributes poultry birds to marginal rural households throughout the State. This scheme shows that not only can it contribute to rural poverty reduction but also that, despite some shortcomings and the rather high subsidies, it is possibly bankable and could be strengthened and scaled-up through appropriate public-private partnerships.

SOUTH ASIA Pro Poor Livestock Policy Programme

A joint initiative of NDDDB and FAO

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