

**Poultry against extreme poverty:
An early assessment of poultry in CFPR/TUP**

**Ayesha Dada
Imran Matin**

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**Research and Evaluation Division
Brac**

1.0 INTRODUCTION

Poultry, the largest livestock group, accounts for more than 30 percent of all animal protein consumed worldwide. In Bangladesh, the poultry sector is also an integral part of the farming system, about 89 percent of rural households rear poultry, through traditional production systems entitled “low input-low output” systems. Here the mortality is very high and the production low, compared to commercial breeds. The constraints to productivity however, are not only related to disease but also to management systems, lack of supplementary feeding, predators, and inappropriate breeds. (Permin, Pedersen and Riise)(Saleque 2001)

Despite their low productivity, village poultry is thought to be an excellent tool in poverty alleviation due to their quick turnover and low investment requirements. In Bangladesh, BRAC in collaboration with the governments Department of Livestock Services, has developed a successful approach, known as the ‘Bangladesh Poultry Model’, which currently involves more than 2 million women. With the ability to reach especially poor women, and create additional income for the households, the model (described below in Table-1) has proven to be a viable poverty alleviation tool (Alam 1996 and 1997).

On the production side the main idea is to establish a large number of small household based production units (key rearers). Each household is supplied with a small number of improved breed birds, simple technical tools and access to proper feed. The key rearers are also supported by vaccination programs, provision of training, micro-credit, input supplies and marketing established within the local community. Thus making up an integrated production chain, with a minimum dependency on external inputs, but one which also operates on free market principles. (Permin, Pedersen and Riise:144:1987).

The Bangladesh smallholder poultry model has been analyzed and described in several publications (Jensen, 1996; Saleque and Mustafa, 1997; Saleque, 2000; Fattah, 2000; Ahmed, 2000; Dolberg, 2001). Furthermore, impact surveys have been conducted (Alam 1997 and Nielsen 2000) and a number of subject specific research papers have been produced such as on breeding (Amber (personal communication) and Rahman et al., 1997) and socio-economic aspects (Nielsen, 1997 and Nielsen, 2001). (Dolberg and Jensen:2002)

TABLE-1 “The Bangladesh Poultry Model”

Primary Production	Input Supply and Marketing	Services to establish and maintain the model
<p>Model Breeders Small low cost parent farms, with 25 parent birds per farm producing hatching eggs, which are supplied to the mini hatcheries through the egg collectors.</p>	<p>Parent Stock The parent stock is supplied from NGO or government hatcheries at market prices for day-old chicks.</p>	<p>Village Groups Beneficiaries are organised to form Village Organisations (VO's) with 30 women each. The groups meet each week to discuss various issues.</p>
<p>Mini Hatcheries Small low cost hatcheries operating on indigenous technology; with a capacity of producing 1000 chicks per month.</p>	<p>Feed Feed producers receive 'balanced feed' from BRAC feed mills; they may also prepare feed from locally available sources under supervision of BRAC staff.</p>	<p>Training Before a poultry holder is established she has to go through a 3-day Training Program and monthly refresher courses</p>
<p>Chick Rearers Chick rearers are given 7 days training and rear up to 200-300 chicks for 2 months after which they sell them to the key rearers.</p>	<p>Poultry Workers PW's are given 5 days training, based on that the PW vaccinates against the most common diseases and conducts basic treatment of sick birds – against a fee.</p>	<p>Credit and Savings facilities Depending on the activities, each member is provided with a small loan. The participants are also encouraged to save regularly.</p>
<p>Key Rearers (95% of beneficiaries) These are small farms with 10-15 birds operating under a semi-scavenging system. As an extension of this, there are now “cage rearers” that keep 36 or more laying birds in a cage system.</p>	<p>Egg Collectors Marketing is done by the egg collectors, who collect the eggs from the key rearers and market it in the nearby towns.; or the key rearers may also market the eggs themselves.</p>	<p>Extension Services Provided by BRAC staff in cooperation with the staff of the Directorate of Livestock Services in any given area.</p>

Source: Permin, Penderson and Riise:1997; Dolberg:2001; Saleque:2001;

The evolution of the model began in the late 1970's, when BRAC identified poultry as a potential source of income for poor women. The first intervention, was the exchange of 'indigenous' cockerels with HYV ones, and it failed, because the VO members were selling off the more expensive HYV cockerels; the supply of HYV cockerels was in itself limited; and mortality was also very high. In order to reduce bird mortality a regular vaccination program, was initiated. Covering an entire village against the most common poultry diseases, it was successful, as mortality was reduced significantly. It led to an important feature of the model, which is an inclusion of poor women as vaccinators. Subsequently, rearing of day old chicks was initiated, as the introduction of pullets, from the government to the village women met with high mortality. Selected, trained and supervised by BRAC rural women were involved in rearing day old chicks for two months, after which they were sold to other women (key rearers). (Dolberg:2001)(Saleque:2001)

Tabl-2 below describes the different phases of this model, under various programs with the involvement of BRAC in each phase.

TABLE-2 “The Evolution of the Poultry Model”

PHASE		ACTIVITY	AGENTS INVOLVED
Phase 1	1983 - 85	A first test of the model, was undertaken in co-operation with the governments Directorate of Livestock Services (DLS) in Manikganj	BRAC DLS
Phase 2	1985 - 86	Application was scaled up to 32 thana's, through BRAC's Rural Development Program (RDP)	BRAC DLS
Phase 3	1987 onwards	Model was applied to the Income Generation for the Vulnerable Group (IGVGD) program	WFP DLS BRAC
Phase 4	1993 – 98	Under the Smallholder Livestock Development Project (SLDP), the model was introduced on a large scale to 400,000 women; with credit support as a major component.	IFAD Danida BRAC
Phase 5	1998 - 2002	The Participatory Livestock Development Project (PLDP) similar to the SLDP, was initiated.	ADB Danida BRAC
Phase 6	2002 - onwards	The model was applied, after many changes to the CFPR/TUP program.	??

Therefore, the smallholder poultry development concept, which has been developed in a unique learning process in Bangladesh over a period of more than two decades, is an essential tool in the fight against poverty. It is seldom that a development concept, in its basics, is maintained over such a long period and that lessons learned in one project are incorporated in the succeeding projects, especially when different donors are involved. (Dolberg and Jensen: 2002)

- **SLDP/PLDP**

A survey carried out by Alam (1997) revealed that the SLDP project has made a substantial impact on poultry production, employment and income generation in the areas it has been operating in. Participants overall income had risen after involvement in the poultry program, by over 30 percent. The beneficiaries of the project are poor women (the target criteria being those who own less than 0.5 acres of land and depend on the sale of manual labour as their main source of

income). The generation of employment and income from SLDP activities had enhanced the status of those women not only within the household but has also had an impact on wider social relations.

- **The model and the very poor**

The IGVDG program is built on a government safety net program that provides free food grain for an 18 month period to destitute female headed households; BRAC also adds skills training and financial services in the form of savings and credit; so when the cycle of free food grain ends, participants are able to engage in income generating activities and become clients of regular micro finance programs. Two-thirds of the nearly one million women who participated in the IGVDG program have 'graduated' from their state of absolute poverty to becoming regular micro-credit clients. (Hashemi:2001:11)

Poultry rearing, the most 'successful' activity constitutes the bulk of BRAC's IGVDG training program (Hashemi:2001:8). The reason why poultry was seen as the most 'appropriate' activity was because it was relatively easy to market, was home stead based and had the potential to generate a regular cash-flow (Abed:2003).

So one can argue that the 'Bangladesh Poultry Model' as part of the IGVDG program has been successful in targeting the 'hardcore' poor; and has led to women increasing their incomes and their asset ownership. The program demonstrates that it is possible to bring even the most destitute households to a position where they can access regular micro finance services.

But the IGVDG program does not represent a panacea for all those in safety net programs. A significant proportion of participants fail to stay on for 3 years, the minimum estimated period that is required to achieve sustainable changes in livelihoods, and subsequently drop out. In addition, the coverage and the targeting process of the IGVDG program excludes many of the extreme poor. Besides the IGVDG, no other systematic program existed which catered to the very specific needs of the extreme poor. These sort of considerations prompted BRAC to consider a special program, specifically targeting the ultra-poor, that is the CFPR/TUP program. (Abed: 2003)

- **CFPR/TUP Program**

PROJECT DESCRIPTION

The program started in 1999 and it seeks to challenge the frontiers of poverty reduction by 'pushing down' the reach of development programs through *specifically targeting the ultra poor*; and 'pushing out' the domain within which existing approaches operate (specifically this involves a shift away from the conventional service delivery mode of development programming, to focus on the structures and processes that disempower the poor, especially poor women). (Matin and Halder :2002:8)

PROGRAM COMPONENTS

The 'pushing out' strategy involving BRAC Village Organization (VO) members has two components, the Social Development Program and the Essential Health Care Service program.

The 'pushing down' strategy involves four interlinked components: A Special Investment Program for the targeted ultra poor involving asset transfers and stipend support; A Social Development/Investment Program on providing support and counseling on the development of livelihood strategies for the targeted ultra poor; Essential Health Care Services provides subsidized health care services and referral arrangements for the specially targeted ultra poor; And an Employment and Enterprise Development Training Program in providing training and follow up services for the targeted ultra poor (3 day basic training course; and a refresher course once a month for a day).

SPECIAL INVESTMENT PROGRAM (SIP) IN THE CFPR/TUP

The Special Investment Program involves several sub components (AMR:2003:13)

- A subsistence allowance of Tk 4500 paid over 15 months (which means that a stipend of Tk 300 is given monthly to each member)
- An asset transfer averaging Tk 6000 per beneficiary (a breakdown of which is given below)
- Intensive motivation and one to one contact from program staff (the low staff-beneficiary ratio of 1:50 in the CFPR program allows for individualized training, motivation and for adequate supervision)
- There is also a skills and social awareness training component, where all members receive a 3 day basic training of enterprise development and a monthly refresher course on the specific activity that they have chosen.
- Free of cost health care and health training is also provided for.

ASSET	Number of Participants	%
Poultry	1597	32%
Livestock (cow)	1402	28%
Livestock (goat)	900	18%
Agriculture	294	6%
Social Forestry	378	7%
Non-farm Activities	429	9%
TOTAL	5000	

DISTRICT	TOTAL	%	POULTRY	%
Rangpur	1853	37%	647	41%
Kurigram	1746	35%	550	34%
Nilphamari	1401	28%	400	25%

The type of enterprises offered to members in the CFPR/TUP program represent a spectrum that ranges from the home-based (eg poultry, cow rearing) to farm based (vegetable growing, nurseries) to factory based or market based enterprises (non-farm sector, wage employment). The spectrum also covers enterprises that offer steady inflows of income (eg poultry) to those that offer 'lumpy' inflows (eg cows). (Insert Diagram AMR:2003: 34)

Poultry is one of the only activities that assures a steady flow of income and is therefore most suitable to the conditions faced by ultra poor households. In the program as you can see from table-3 above, poultry also accounts for 32 percent of all IGA choices made by the TUP members (a district wise breakdown for poultry is also given in table-4). It is therefore the largest and the most critical sector in the CFPR/TUP project.

Each member receives 36 two month old High Yielding Variety (HYV) 'Nera' breed birds worth Tk1800, with the house extension constructed and steel cages provided for. Poultry feed, vaccines and medication are provided free of cost for the first 7 months.

Table-5 "Cost Breakdown"

ASSET	COST (Tk)
House Extension	500
Cage	2400
Birds	1800
Hurricane	125
Medicine/Vaccines	86
Feed	701
TOTAL	Tk.5637

Poultry beneficiaries are to sell eggs, which provide a regular flow of income to the household. Production is expected to be high enough to provide the households with a surplus to accumulate, net of running costs (which are subsidized in the first seven months).

Towards the end of a cycle, enough birds are expected to survive so that the beneficiaries can sell them and have enough money to either re-invest in poultry or any other income generating activity of their choice. (Matin and Begum: 2002)

SECTION 2

OBJECTIVE

The objective of this study will be to make an assessment of the benefits received and the challenges faced, in using poultry rearing (as a tool for asset transfers) to the ultra poor in the CFPR/TUP program.

The asset transfer component for TUP members is considered experimental at this stage and a full evaluation is planned before the growth of the component in 2004. This study therefore, would be more effective if 12-15 months had passed, since the distribution of the assets to the beneficiaries. The Annual Monitoring Review (AMR:2003) also recommends that the actual review take place at the end of October 2003.

This study was therefore designed to get a preliminary idea of the benefits received, challenges faced and the future possibilities, in using poultry rearing as a tool in asset transfers to the ultra poor. Nevertheless, ensuring the economical/technical aspects of asset returns in poultry rearing and its viability are not sufficient in themselves, changes will also be have to made in the socio-political settings in which the ultra poor conduct their lives (Matin and Begum:2002:4) That is an 'enabling' environment must also be present which gives political and institutional space to enable the participants to take the next step out of poverty (Jensen and Dolberg: 2003).

METHODOLOGY

Participants who are part of the TUP Baseline Database and have chosen poultry rearing, as part of the TUP's Special Investment Program, have been selected for this study. To make a district wise comparison possible, across the three CFPR districts of Rangpur, Kurigram and Nilphamari. Two areas have been chosen in each district, therefore a total of 6 areas have been covered (including outposts).

Table-6 "Areas covered in the survey"

DISTRICT	AREA	NUMBER
Rangpur	Dorshona	20
	Bodorgonj	20
Nilphamari	Syedpur	20
	Nilphamari Shodor	20
Kurigram	Rajarhaat	20
	Nageeshwari	20
TOTAL		120

Therefore, data will be collected for 120 participants in poultry rearing ¹ to form the basis for a detailed survey to document the change in livelihoods for the participants over a period of 6 months.

In addition to the questionnaire survey, we also did case studies focusing on areas such as marketing, control over assets, conflict and negotiation, etc to provide a more qualitative assessment of the program.

SECTION 3

3.1 Enterprise Choice

- How the program chose the appropriate IGA (income generating activity) amongst the selected participants: **Program Perspective**

The TUP POs discuss IGA options with the TUP members; the members previous work experience and capacity to undertake such an activity are also considered; Staff are supposed follow a three-step selection process:

- (1) Area Selection: Selection of areas is essential because not all areas are equally suitable for all IGAs. Access to markets, price and infrastructure are taken into account. BRAC field level staff interact with Head Office staff to decide on the areas. So out of 21 upazillas – 7 were selected for vegetable cultivation; 7 for nursery; 21 for poultry; 19 for cow rearing and 15 for goat rearing;
- (2) Interviewing TUP members: The interest and capacities of the TUP members are prioritized in the process of IGA selection. The POs for all enterprises visit the TUP members collectively, in order to discuss all available options with the members; inputs from BRAC and expected returns from the various IGAs. This process can take up to 4/5 days, before a decision is collectively made.
- (3) Final Selection of IGA's: After selection, members are informed about the training schedule. During this process the POs are again involved in verifying the selection decision of the TUP members.

In the first phase of the program, BRAC offered each TUP member three IGA options (from a total menu of 7 IGA options). The choices were limited because of several reasons. One reason was to balance operational considerations in the choices, as each area office must have 50 sector activities for each technical PO.

¹ All 120 participants will be selected from the first phase in which assets were transferred between Jan-June 2002. The second phase in July – December 2002 will not be considered as it is not possible to make an assessment only 3-6 months after distribution of the assets.

So for example, the poultry technical PO must have 50 poultry rearers under him, otherwise it's not operationally feasible to have that option in the area. A second criteria, relates to the economic potential in that area; that is the market prospects for different IGA's is assessed by BRAC staff (as discussed), to ensure for example that sufficient demand exists in the market for 50 egg 'sellers'. Finally, the physical ability and previous experience of the participants were also assessed before a decision was reached (some women prefer the less intensive activities related to cage rearing, while others prefer the more active work of vegetable cultivation). It is therefore argued that assets transferred were largely and sufficiently demand driven. (AMR:2003:20)

Although from the survey results it appears that 29% of the STUP poultry members were not given any asset choice other than poultry. This was mostly the case for the sampled STUP poultry members from Nilphamari Sadar (20 of the 35 such cases).

If participants are not allowed to make the choice of whether they want to take on a particular income generating activity, then they will choose not to continue with that particular activity in the second cycle. There was a good correlation between those for whom poultry was not a first choice and those that did not want to continue with poultry - 86% of those for whom poultry was not their first choice did not want to continue with poultry. This has major implications for the long-term planning for the program, who assume that participants will continue with whatever income generating activity they have chosen in the first cycle.

However, those who were given a choice between two or more assets, 80% reported that poultry was their first choice. Of the members for whom poultry was not their first choice, we asked why they 'chose' poultry. The predominant responses were, 'because BRAC told us to' (18%), and 'we were told that we will not get anything but poultry' (65%).

- How the participants choose poultry rearing: **Participants Perspective**

Women make a selection according to their management ability, type of house they have, the time available with them or their family members and the type of cash flows they prefer. Where women are engaged in farm or domestic labor, they tend to choose enterprises that can be managed along with their current commitments, thereby minimizing the potential loss if they were to give up their current jobs. Thus the type of enterprises and process of selection by women reflects their own needs and priorities and enables them to move from impermanent and insecure livelihoods towards stable and sufficient incomes, a good base for food security and improved livelihoods. (AMR: 2003:35)

Shukur's case (box-1) sheds light on how the participants make the asset choice, and the problems associated with this process.

BOX-1 “Problems faced by Shukur in making the asset choice”

BRAC PO's didn't tell Shukur about the murgi's when they initially discussed the project with her. They had told her that they would give her land and build her a house. When she went for training and found out that she was being given murgi's she didn't want it for various reasons: because she lives on someone else's land; because she didn't have faith in BRAC; and raising murgi's was against her religion.

Krishna (Shukur's husband) also said he didn't want to take murgi's. "When they gave me the bamboo and the tin, I told them to take it away". Then the PO Nurul Amin, said why is it that you don't want murgi's? You have to take it. Why did you send your wife to the training session.

Krishna: It doesn't matter if I sent her to the training, I don't want the murgi's now. Nurul Amin : I don't want to loose my job because of this, do you think that this is a ludo game, that you don't want to play? You have to take the murgi's

Discussion of the specific components in the CFPR/TUP Poultry Sector

In this section I will try to explain the changes that have been made to try and adopt BRAC's 'poultry model' (refer to table-1) to the specific conditions faced by ultra poor households and in doing so will try to answer the following questions:

- Why was cage rearing seen as being most appropriate as opposed to a deep litter system?
- Why were 36 birds distributed instead of 18?
- Why were layers chosen instead of broilers?

3.2 Why cage rearing? ²

Battery cages for laying hens have probably stimulated more criticism on animal welfare grounds than any other intensive husbandry system. Different regions of the world appear to be moving in different directions. In 1999 the European Union approved a directive, which bans cages from 2012. However, in North America and in parts of Asia (including Bangladesh), conventional cage units are being introduced on a massive scale. This section gives a broad overview of the major advantages and disadvantages of using cages in the context of the CFPR/TUP projects targeting of ultra poor households.

The disadvantages of housing hens in cages³ over alternative husbandry systems such as a deep litter system⁴, are as follows: (1) A lack of physical

² This section is based on the paper by Duncan (2001) as well as on discussions with Bodorgonj Poultry PO's Imtiaz Ahmed and Md. Sikender and Dr. Saleque (head of the BDP program at BRAC).

psychological space for the hens, leading to the general 'welfare' of hens being reduced; (2) Lack of exercise resulting in a higher incidence of metabolic disorders; Caged laying hens sometimes show paralysis around peak production times, this is known as 'cage layer fatigue' and is a condition caused by a lack of exercise; (3) Lack of normal behavioural opportunities such as nesting and dust bathing (4) And a higher incidence of foot lesions is found in hens who spend all their time in cages.

The main advantages of cages for laying hens over a deep litter system are: (1) Increased hygiene resulting in a much lower incidence of diseases in which the infectious agent is spread through the droppings; the major bacterial infections that have been reduced by a switch to cages are avian tuberculosis; salmonella; fowl typhoid, coccidiosis and various types of intestinal parasites; (2) A small group size resulting in a low incidence of social friction; (3) Ease of management, because in non-cage systems, a higher degree of husbandry skills are required to ensure that nest boxes are used, litter remains in good condition, and so on; (4) The absence of litter problems such as the build up infectious agents and outbreaks of parasitic and bacterial disease as well as the more common problems of dust and ammonia that lead the birds being more susceptible to respiratory infections; problems which are either avoided or greatly reduced by housing hens in cages; (5) Better working conditions for those who look after the birds; (6) And a much lower cost of production due to a whole range of factors; The lower morbidity and mortality resulting from better hygiene in cages, mentioned earlier accounts for a major part of the savings; Another factor contributing to reduced costs with cages is that all eggs laid are collected, the number of eggs lost, soiled and cracked is always higher in non cage conditions. Therefore it can be seen that there is a clear economic advantage in favour of cages.

It can also be argued that cages are more suited to the conditions faced by 'poor landless' households because:(1) Security (in deep litter security is a problem as dogs/jackals get in). Also women can then leave the household for other work etc. knowing that their birds are secure in cages. (2) Cages require less space; cages: 0.5 sq ft per bird (1.5 square feet per cage; 3 birds in each cage); deep litter: 2 sq ft per bird (3 sq ft as there would be no ventilation system in operation). Therefore cages are more suitable for ultra poor households, who are usually landless where the poultry shed is an extension, attached to the main homestead. (3) No litter change required; usually in a deep litter system the litter (rice husks or wood shavings) are changed on a monthly basis; a sack of rice husk (40 kg) costs Tk.50; for 36 birds you would require 80 kg, i.e. Tk.100 per month is saved in not using a deep litter system.

³ In a cage rearing system there is usually an elevated cage with a mesh floor through which the bird's litter drops onto a tray, which is cleaned on a daily basis.

⁴ A 100 to 150 mm of rice husks or wood shavings is placed on the floor of a poultry shed to form a deep litter system.

3.3 Why 36 birds?

It was decided to scale-up from 18 to 36 birds, in the TUP program to increase the returns, rearing 18 birds means an income of Tk 300 per month whereas for 36 birds returns are almost doubled and therefore more suited to the conditions faced by ultra poor households, who need a higher level of income to push them across the threshold into a more sustainable cycle of accumulation.

The reason why 36 birds and not 54 were found to be appropriate was for the following reasons: problems with management if 54 birds are given and higher levels of risk which ultra poor households will not be able to sustain. So, for example if there is a disease outbreak the loss will be much higher if 54 birds are lost instead of 36; Overall program budget would also have to increase significantly, where initial capital investment would double from Tk 10,000 to Tk 20,000 per person; An increased amount of space is also required for 54 birds (10 ft x 7 ft) whereas for 36 birds only 7 ft x 5 ft of space is required (the poultry shed can therefore be built as an extension of the house).

The reasons why project scaled up in the first place, also apply in arguing for a further increase to 54 birds, as it would increase returns even further, up to a thousand taka per month. As well as to benefit from economies of scale, for example in terms of the 'time cost', if it takes two hours every morning to feed the birds and clean the cages, with a marginal increase in the time required to look after 54 birds, say by half an hour, returns from the poultry enterprise would more than double.

However, from the survey results it can be further argued that 36 is the most appropriate number as the majority (64%) of those who wanted to continue with poultry wished to do so at the same scale (i.e. 36 birds). Only a small percentage (9%) wanted to continue on a smaller scale (18 birds) while the remaining 27 percent wished to continue on a larger scale (54 birds).

3.4 Why Layers?

For layers the production cycle is very drawn out (a 14 to 15 month production cycle is assumed), whereas for broilers it is a 2-month cycle (including the required rest period). Therefore in terms of cash flow broilers have a major advantage over layers as the production cycle is much shorter and the potential for earning profits is much higher. However, there are a number of reasons why layers were chosen instead of broilers.

Firstly because the market is very unstable for poultry meat (greater price fluctuations in the broiler market), therefore the potential for earning profits is also not as high. As TUP households do not have the capacity to bear such losses it is not a viable option as compared to marketing of eggs, which have an almost unlimited market;

Secondly, there is a greater incidence of diseases amongst broilers as compared to layers; More intensive management techniques are required; in terms of technical know how as well as the requirement for specialized equipment; which also means that there is a higher cost of initial investment, for example brooder's are necessary in the initial stage; For the layer birds, the initial 2 month 'risk period' is borne by the chick rearers, such a system is not possible with broilers;

Thirdly, electricity is required (to maintain the temperature; fans have to be installed for ventilation etc) whereas the majority of TUP households do not have access to electricity. By contrast, Cage rearing can be managed with four hours of light from a hurricane lamp, which is more appropriate and cost efficient technology.

Lastly and most importantly, there is no market for broiler meat in the northern districts of Bangladesh. It is not possible to transport and market the birds in Dhaka, as it would cost too much. However, in the future when a market for broiler meat develops in the northern regions small-scale broiler farms would be a more feasible option. Since the management setup, which can support this already exists (CFPR staff-beneficiary ratio stands at 1:50; compared to the BDP 1:500). Therefore it can be concluded that broilers are not suitable for ultra poor households at this stage.

SECTION 4

4.1 Change in Livelihoods

There has been considerable change in the livelihoods of poultry recipients. Most members relied on irregular/seasonal earnings and earnings in kind⁵ as well as help from better off members in the community. 67 percent of TUP members reported getting some degree of help from better off members in the community, before the asset transfer. What is important to note is that when they were asked how this would be affected after getting asset and other assistance from BRAC, most (73 percent) thought that the help they got earlier would not be available any longer.

After receiving poultry from BRAC, over a period of eight months these women have managed to accumulate considerable savings (4,285 taka on average). Participants could not have saved as much if BRAC had not provided the savings facilities.

⁵ 84% of the members reported being involved in some outside work before getting poultry from BRAC. 44% of these members received only in kind remuneration for their work. 73% of these members had to rely on only seasonal/irregular earning opportunity.

They also find it easier to obtain loans from others. When asked, 'now that you are earning better, would it be easier to obtain loans from others': most (85 percent) responded in the affirmative⁶. Almost all members (97percent) however reported that now they do not need to borrow from outsiders. Participants are also confident to take on institutional micro finance, though they do not feel the need to do so⁷. When asked if they now thought that they could borrow from a micro finance institution, 79% stated that they do not want to borrow.

Poultry recipients are now able to imagine and plan for the lives they value. As one participant stated, "I can now see things can be different from now on. "I had a very irregular income before as a day laborer—now I see face of money (*taka r mukh*) regularly". I think this statement summarizes the impact of the TUP program, whereas before these women would live on a 'hand to mouth' basis, they are now able to sell the eggs and receive a daily income of Tk 70 to 80 and most importantly to save and make plans for the future.

The large majority of the members wanted to continue with poultry; with the money they had saved from BRAC⁸. When asked what the problems they may face in the future if they wanted to continue with poultry, the major responses were: mortality (16%) (refer to appendix-1 for further details on area wise mortality figures); expenses (43%); space constraint (17%); egg marketing (11%).

Almost all members (118 of the 120 members surveyed) expressed satisfaction with poultry rearing. The reasons they gave are thematically listed below. Participants confidence levels have increased and they are now able to plan for the future, as one member stated, "I can now see that things can be different from now on". "I don't have to go from door to door for a few takas anymore", this statement summarizes the considerable economic change that has taken place amongst the participants of the program. They are also able to accumulate assets and make savings, the statement "I can now think of home improvement" sums up the sort of plans participants are making.

⁶ The main reasons given by those who did not think that it would be easier or make any difference were: 'you have BRAC and are now rich—why do you want help (loan) from us?' (9 cases); 'we are too poor' (7 cases).

⁷ Those who thought they were ready and interested in taking loans from MFIs, the median loan size (payable within a year) reported was taka 3,500.

⁸ The large majority of the members wanted to continue with poultry (94%). However for those that did not, the reasons were: high mortality (1 case), expensive (2 cases), needs too much care and attention—difficult to do alone without help (3 cases), not enough space and foul smell (1 case).

TABLE-8 “Participants Feedback on Poultry Rearing”

Confidence	<p>I was nothing before—now I have ground beneath my feet The income from selling eggs has changed my life Now I don't have to work for others—I can earn myself and fend for myself I can now see that things can be different from now on I am old but I felt much older before—I never thought that I could also earn and not beg.</p>
Economic Change	<p>I had very irregular income before as a day labourer—now I see face of money (<i>taka r mukh</i>) regularly Now I can eat regularly—my children can eat better I don't have to go from door to door for a few takas anymore I can now afford to send my children to school</p>
Assets	<p>I don't have to be in shame any more for the torn clothes I had to wear I can now buy medicine I can now think of home improvement I just can't believe that I could have so much savings!</p>
Other	<p>I am old and can't move about too much--- poultry is good for me. I can look after my poultry and also concentrate on other household chores. This (poultry in cage) does not bother others—it does not lead to quarrels.</p>

4.2 Discussion of the challenges faced by ultra poor households in poultry rearing

In this section I will go through what I think are the major challenges that are faced by ultra poor households in rearing poultry. In doing so I will go through some of the case-studies which I would argue are better able to illustrate the complexities that an enterprise such as poultry rearing can give rise to.

- **Landlessness and how it affects the enterprise**

It is estimated that 49% of the participants do not own the land on which they live and, of them, 43% "don't know" how long they can continue living on that plot of land. Insecurities surrounding a living space are likely to impact a participant's ability to continue rearing poultry. That is why 33% of poultry recipients wish to buy land using their savings.

Though there was a general feeling of insecurity amongst those who were uncertain about how long they could stay in their current homestead, none seemed to be resigned. The predominant response to the question, 'How will this uncertainty affect your poultry enterprise?' was 'We have been discouraged about rearing chicken and we may be evicted, but we will take our poultry with us'. Latifah's story illustrates the insecurities faced by a landless female-headed household and the complex social issues that an apparently harmless enterprise such as poultry rearing can give rise to.

BOX-2 Uncertainties: Will Latifa have a place to stay?

Latifa's husband abandoned her with a daughter and she now lives with her widowed mother, who begs for a living. Latifa worked in various places as a day labourer, but nobody would like her, because she was a young girl going around various places. She would also pick fights with people.

The PO bhai knew what the villagers had to say about Latifa, "She didn't care about anything, she would have relationships with other men, and she wasn't a 'good women'. She used work in the jatra daal in Syedpur (singing and dancing troupe), and that is when she met Bublú, and got married."

Latifa did not own any homestead land. Nokibuddin the landowner, who was a distant relative of Latifa's mother, let them live on his land. Her *nana* (maternal grandfather) was quite well off, but when her father remarried, her mother was too proud to return to *nana*'s house, and started begging to support her family instead. She would also get zakat money and people in the village would generally help her out. Even after she received the assets, Latifa continued working, as her mother was able to look after the poultry. When her mother got ill, she had to start looking after the birds and give up her other work. When the birds started laying eggs, her production was the highest in the whole area and Latifa would proudly say, 'Even if all the poultry in the whole country died, mine wouldn't'.

It was at that time, that people in the village started talking about her, saying that she was involved in some 'anti-social' activities. Her mother also died around this time and her mother's uncle, the landlord tried to remove her from his land. The RC (TUP) and the PO bhai for that area went to visit Nokibuddin the landlord to try and explain to him, that Latifa who was now on her own with a child, would get into trouble if he made her leave. If he removed her from his land, she would get ruined. So the landlord agreed to keep her on his land for one year. However, once Latifa's birds came into production he started complaining about the smell, about how she was over staying and continued to try and pressurize her into leaving.

The next time the RC bhai went to visit Latifa, it was to discuss when she would be given the goats. Latifa was more interested in buying land for her homestead—"Why don't you use the savings I have with you and add the money with which you want to give me goats to buy me a little bit of land?" she argued. But the RC bhai knew that she didn't have enough savings to buy land and continue with a second round of poultry. But Latifa could not continue with poultry even if she wanted to-- the landowner was still pressurizing her to leave, because of the 'smell' from the poultry.

Hearing this discussion, the landowner came out of his house and said, ' Look, I had only agreed to let her live here for a year you can give Latifa a goat or even camels, I don't care. But I will not let her live on my land--- she has to leave.' Then the RC bhai tried to explain, how BRAC was not able to buy Latifa land, she would have to use her savings to buy land. But the landlord got angry hearing this, 'You have to take her away, if you can't do that than you have to pay rent for the land'. The RC also got heated up, and said, 'You cannot move Latifa from here; she will stay here as long as she wants'. Finally the landlord cooled down and tried to explain how his children's schoolwork was being affected by the stench from the poultry. Latifa had to move, and he was willing to contribute up to Tk 2000 for Latifa to buy her own land.

Nokibuddin still hasn't given the money, but once he does; the RC bhai says that BRAC will raise some more money through the Graam Shohayok Committee to buy the land. The committee has already helped Latifa, by spending Tk 200 on fixing her house.

- **Negative externalities associated with cage rearing**

Shukur’s husband beats her up to get the money she receives from selling eggs. Her case raises serious issues regarding the control over the income received from poultry rearing, an issue, which we were not able to explore in the questionnaire.

Box-3 Fights over the ‘egg money’

Shukur’s husband physically tortures her. I asked Shukur whether her husband beats her up and she admitted that he did, that he was very violent and they were always having fights over the money she got from selling the eggs. Apparently he had always been like that, since they got married (they only got the poultry four months after they got married). There was one time when he took down the house, broke it down in anger; then another time he sold the bed (*khat*) they used to have to get some money, as he never worked regularly.

Just recently, about a month ago, Shukur says that her husband had taken poison, after having a fight over the ‘egg money’, which he wanted to spend on visiting his relatives in Nonintaal; when Shukur refused to give him the money he beat her up very badly. I could still see the cuts on her hands, which still hadn’t healed properly.

What Shukur did complain about was the smell from the birds. The house and the poultry shed are together; there is no dividing wall. She says that she has lost her appetite because of the smell from the birds she just cannot eat. Her health has deteriorated and she has lost weight after she received the birds from BRAC.

- **Egg Marketing Strategies**

There are various strategies that participants have employed in the marketing of eggs. The survey results show that most members reported to be marketing the eggs from home (65%). We asked the members from where they were selling the eggs now and in the past. We get the following distribution. Slightly more members have shifted from selling eggs in the market to selling from home (12% shifted from selling from home to selling in the market whereas 16% have shifted from selling in the market to selling from home). One of the reasons for this maybe that local marketing networks are now developing because of an increase in the supply of eggs from the TUP members.

TABLE-9 “Marketing Strategies”

Marketing	Number (%)
Always selling in the market	27 (22%)
Always selling from home	60 (49%)
Now selling in the market but used to sell from home before	15 (12%)
Now selling from home but used to sell in the market before	19 (16%)

The reasons we get for shifts in marketing are listed below:

TABLE-10 “The reasons for Shifts in Marketing”

From home to market	Better price in the market Can get cash in a lumpsum Risk of eggs breaking while carrying
From market to home	Village people say that there is no vitamin in these eggs Market is too far and difficult to travel to Now there is no price difference Earlier the paikars did not know Can negotiate price and calculate better from home Need to pay tax at market

The egg lottery system, set up in Nilphamari, is a very innovative marketing strategy, and it also raises the very important issue of developing marketing networks, so that program participants can gain maximum benefits. With reference to the specific conditions faced by ultra poor households, it can be argued that they are not able to take on major marketing activities (as has been case for aarong milk) but should focus instead on utilizing the existing marketing networks to their full potential.

Box-4 The Egg Lottery System in Nilphamari makes egg prices go up!

Liton, who owns a cycle stand in front of the Momtaz Mahal cinema hall, set up an ‘egg lottery’ system. He would go through three to four hundred eggs a day, starting from ten in the morning till twelve at night, making a daily profit of up to three hundred taka.

The lottery system works in the following way; four people pick out four separate cards for which they pay one taka each. Each of the cards has four random numbers (from 1 to 16) written on them. Then from a tin can which has 16 pieces of cards in it, one of the players picks out a single number – and that is the winning number – whoever has that number written on their card, gets the ‘boiled egg’. The egg lottery became such a craze that people wouldn’t eat eggs without gambling for it. The overall demand for eggs increased to such an extent that even the local hospital couldn’t get hold of eggs. The price of eggs therefore increased from Tk 10 –11 per *haali* to Tk 14. The lottery-walla’s would go and wait at the TUP member’s houses and other farms, to get the eggs.

That is when the police cracked down on the lottery-walla’s. They arrested 11 people including Liton and took them to the local thana. Then the UP chairman and another fifty to sixty people went in a procession to the thana to get the lottery-walla’s released. From that day the egg lottery system has been banned in Nilphamari and the price of eggs has come down to Tk 12 per *haali*.

In terms of the inputs such as feed, that are at present being supplied solely by BRAC, it is interesting to note that 46 percent of members reported that alternative sources of poultry feed were available in the local market; while 31 percent bought feed from the local market.

- **Control over marketing and Income**

Nonibala's case shows the complexities surrounding the control over assets and the income from that. It points towards the importance of engagement, dialogue and consultation in the marketing process.

Box –5 Nonibala and the Egg Thief

Nonibala's husband died a year ago-- he had TB for which he didn't receive proper treatment. Her oldest son Nikunja got married recently and lives separately. Her youngest son, Promoth, who is about 15 years old lived with her, and used to keep track of the egg production, sell the eggs and so on. But for the last 3 months since he went away to Dhaka for work, Nonibala keeps all the accounts herself.

In the beginning, Nonibala was scared to be involved with BRAC. In their village there was a woman who had taken a loan from BRAC and when she was unable to repay it, BRAC took away all the utensils from her house--- she only got them back after she had repaid the loan.

Nonibala's situation was very bad, the house that she had was unlivable. She didn't have anything in the house except for a small box. She also wasn't very good at keeping accounts etc. The PO in the weekly follow-up, found that the egg production figures didn't add up--when other TUP members in the same area would have production figures of 32-34 eggs a day, Nonibala would only have 15 to 16 eggs a day. To find out what was happening, RC and the RSS bhai went to check. They found that all the birds were laying eggs. The day they went, Nonibala wasn't there, so they discussed this problem with her younger son Promoth:

The RC bhai later explained why he thought Promoth actually stole eggs-- 'People in the village told them that, the assets, which BRAC has given them, would be taken back. They would not understand what the savings component of the program was about, not believing that their savings would actually be returned. Those who didn't receive any assets from BRAC, and from where Nonibala used to go work previously spread these rumors'. He gave courage to Nonibala, 'Look, this asset hasn't been given to your son, it has been given to you, you must go to the bazaar to sell the eggs. I will support you in this, I will tell the shopkeepers to buy your eggs'. From then on Nonibala, would go to sell the eggs herself in the bazaar.

He also had a chat with Promoth, 'If you sit around doing nothing, you will become lazy. You seem strong and well—if you don't find work here why don't you go to find work in Bogra, Sylhet, Mymensing – where there was harvesting to be done?' After a few months, Promoth left the village to go to Dhaka, to find work.

Before giving Nonibala the goats, the RC bhai visited her and he couldn't find Promoth. He found a major change in their situation, whereas before they lived in a small house, now they were living in a two-room house, both with tin roofs. Nonibala explained, how they had managed to save money from selling the eggs and from Promoth's earnings to make these improvements. There were also other changes to be seen in Nonibala herself. Whereas before, she couldn't count at all, now she could do the basic accounts that were required, as well as write her own name.

- **Quality and Appropriateness of the services received**

The vast majority (93%) did not think that they could save as much as they had managed to do if BRAC did not provided the savings facility. It would therefore seem that the savings component of the program has been successful in providing what the most appropriate service.

However, in terms of awareness about how much participants had actually saved, 32 percent of the members understated their balance, while 15 percent overstated, only 52 percent could state their exact savings balance. When asked if any interest would be paid on their savings with BRAC, most responded that they did not know (51%), while 19% responded in the negative. Of those (34 cases) who thought that BRAC would pay interest on their savings, only 4 could report a figure, which ranged from 6% to 7.5% per year.

The fact that members are not really aware of how much they have saved and the interest that they are receiving, raises issues regarding the image that BRAC is trying to create for the TUP program, an extract from what one of the TUP members said illustrates the 'negative' image that BRAC has in the villages.

Box-6 Nonibalar was 'scared' to be involved with BRAC. In their village there was a women who had taken a loan from BRAC and when she was unable to repay it, BRAC took away all the utensils (haandi patil) from her house, she only got them back after she had repaid the loan.

In the neighboring village, another women had taken day old chicks from BRAC to raise them. But in the process a lot of the chicks died, she had to run away to Dhaka because she was scared about what BRAC would do to her.

By making the program more transparent so that members are aware of how much they have saved or how much interest they are being paid, such confusions would be avoided.

CONCLUSION

The positive experience from the activities in the CFPR/TUP program, illustrate how poultry production can be used as a viable tool in poverty alleviation. In its initial stages the project it seems, has been successful in providing the critical push, to enable ultra-poor households to cross the threshold into a cycle of asset accumulation and sustainable livelihoods.

However, a number of issues emerge which must be taken into account before the expansion of the program.

- In the selection process, operational considerations must not override the importance placed on participants themselves choosing from the various income generating activities that the program offers.
- Another important issue that arises is that of landlessness, about half of the participants do not own the land on which they live. Therefore it is essential for the program to take into account the insecurities faced by landless households, as it plays a very important role in a participant's ability to continue with rearing poultry.
- Program must also take into account the negative externalities arising from poultry rearing. For example, problems arise when beneficiaries do not have access to a tube well, or as in Latifah's case where the 'smell' from the poultry is getting her evicted.
- Finally, where program beneficiaries used to receive help from better off members in the community before receiving the assets from BRAC; most thought that the help they got earlier would not be available any longer. It is hoped that the 'gram shohayok' committee will be able to generate the necessary village level support networks to make up for such setbacks.

Overall, though it would seem that as poultry rearing is one of the only activities that assures a steady flow of income, it is most suitable to the conditions faced by ultra poor households.

FUTURE RESEARCH OPPURTUNITIES

- Health and Environmental impact of poultry rearing on TUP households as well as on a village level. In terms of litter and waste management; egg consumption patterns and so on.
- Comparison of various Income Generating Activities in the TUP program, for example a comparison of poultry rearing with vegetable growing or livestock rearing.
- Conflict Management at the household and the village level over the assets distributed by the TUP program.
- The extent to which enterprise graduation is possible, for example in setting up a marketing co-operative for TUP members; To make an assessment of the forward linkages that are possible in the various sectors of poultry, vegetable growing etc.
- In the future if the program shifts to broilers from layers, as the potential for earning profits is much higher in broiler rearing – what would be the structural bottlenecks that would be faced in establishing a market for broilers and so on.

APPENDIX –1

The Table below provides some basic month wise poultry mortality related information. 62% of the sampled poultry members experienced poultry mortality and the overall mortality rate for the period of 7 months was almost 8%. The large part of this mortality happened during the first 3 months. The highest mortality occurred in Rangpur Shodor (Nogirhaat and Dorshona areas) and Rajaarhaat and it could be one of the reasons why those areas also have the lowest earnings.

Area	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	Total
Rajarhat (n=19)								
# Members reporting	13	5	3	2	2	1	0	13
Total dead birds	44	10	18	3	3	1	0	79
Mortality rate								11%
Nageswari (n=20)								
# (%) Members reporting	15	10	5	2	1	1	0	15
Total dead birds	31	20	7	8	3	1	0	70
Mortality rate								9.7%
Nilphamari sadar (n=10)								
# (%) Members reporting	4	2	0	0	0	0	0	4
Total dead birds	11	10	0	0	0	0	0	21
Mortality rate								5.8%
Syedpur (n=30)								
# (%) Members reporting	1	3	0	3	0	0	0	7
Total dead birds	10	10	0	12	0	0	0	32
Mortality rate								2.9%
Badarganj (n=20)								
# (%) Members reporting	20	8	3	0	0	0	0	20
Total dead birds	32	19	3	0	0	0	0	54
Mortality rate								7.5%
Rangpur sadar (n=20)								
# (%) Members reporting	9	7	8	4	2	1	1	15
Total dead birds	35	21	11	10	3	1	4	85
Mortality rate								11.8%
All areas (n=120)								
# (%) Members reporting	63	35	19	11	5	3	1	74
Total dead birds	163	90	39	33	9	3	4	341
Mortality rate								7.9%

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