

**An Assessment of Economic Profitability of Rearing
High Yielding Variety Chicks and Its Comparability
with other varieties: Seven Brief Case Studies**

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INTRODUCTION

In late 1985, BRAC in co-operation with the World Food Program (WFP), brought together all the destitute wheat receiver womenfolk of Manikgonj upazila under a program known as "Income Generation For Vulnerable Group Development (IGVGD)". The aim of this program is to change a pure relief program into a self-sustained development program to enable the beneficiaries earn a living even the wheat ration is withdrawn after two years. In this program beneficiaries are imparted production skill through training on poultry rearing, embroidery, sericulture etc. Poultry rearing is a familiar enterprise in Bangladesh's households and hence earned top popularity under IGVGD. To make this new initiative succssssful and more attractive "high yielding variety (HYV)" chicks have been provided to the poultry rearers. Wheat ration coupled with poultry keeping loan set this avenue of income generation in full swing. More than two years have passed but no systematic study have been made on it. In order to have an early and quick assessment of profitability, operational problems and comparability, the Research and Evaluation Division (RED) of BRAC undertook a case study by interviewing seven rearers (both IGVGD card holders and non-card holders) in Jagir and Betila unions of Manikganj by using a check list. The major thrusts of this undertaking were :

- a) To assess nominal (money) income received from rearing poultry.
- b) Comparative economic benefit of rearing HYV, local and crossbreed varieties.
- c) Operational problems of rearing poultry specifically of HYV chicks.

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METHODOLOGY:

Five rearers having HYV chicks with at least one in production were interviewed using a check list. Two chick rearers who rear one day old chicks for about 8 weeks available from BRAC and then sell them to poultry rearers and who have completed at least one cycle were also interviewed using a separate check list. Their responses and reactions are narrated in this report.

THE CASES

Section - I

Poultry Rearer

Respondent I:

The respondent has been a BRAC group member for about 8 years. She has been rearing high yielding variety chicks along with other two varieties (local and cross breed) for about one year and was given training on poultry rearing by BRAC. She first got 5 HYV chicks each 2 months old. She also has another 7 local and 2 crossbreed varieties, all of them are in production line.

Of the 5 HYV chicks four are hens and one is a cock. Of the four, one came in production last October at the age of about 10 months and the rest three in last January all at the age of about one year. Each HYV hen lays egg usually every alternative day and sometimes one egg every two days and this pattern continues for about two months and then goes off for about two weeks and repeats again. According to her a HYV hen laid about 12 eggs on average every month.

The two crossbreed hens are laying eggs. According to her a crossbreed hen comes in production at the age of about six months and lays one egg everyday and continues for 15-20 days and then goes off for about 10-15 days and repeats the pattern again.

The local variety hens are also in production line. She informed that the a local variety hen comes in production first at about 6-7 months and lays 10-12 eggs at a stretch and then tries seriously to sit for hatching. If allowed remains off from laying eggs for a total of about 2-3 months, otherwise comes again in production in about another 15-20 days. This rearer spends about Tk.25.00 per week for her twelve poultry birds all of which are in production line. Her nominal net profit is Tk.100.00 per month on an average.

While she was asked to register her views and feelings of comparative advantages of rearing the three varieties she opened that the local and crossbreed varieties come in production much earlier than the HYV. She also maintained that the laying rate of HYV is also not remarkably higher than the others. Her preferential rank order of the varieties are: crossbreed, local and lastly HYV. Though she opined that HYV is not enonomically profitable but she feels that keeping it in small number together with a matured cock in the presence of other varieties helps crossbreed the farm's poultry population and increases the price of farm produce.

It is worth mentioning that the aforementioned rearer is not an IGVGD card holder and her socio-economic status is average.

Respondent 2:

The respondent has been a BRAC group member for about 12 years and has also been rearing HYV chicks for about 4 years. At the time of interview she had 7 pullets (each about 10-11 months old) and 5 non-pullets (small) (below 5 months old) HYV chicks. Among the seven pullets, two experienced first production at the age of about 8 months, other two at the age of about 10 months and the rest 3 are yet to go to production. From her past experiences, she informed that a HYV hen comes in production at about 7 months age and lays egg every

alternative day and sometimes remains off even for two days. This pattern continues for about 2 months and goes off from laying for about 10-15 days and then repeats the cycle. The reasons of delay in first production of the present lot is not known to her. The crossbreed two pullet hens are in production now. According to her, the crossbreed hen comes in production first at the age of about 5 months. Each lays eggs 15-20 days at a stretch and then goes off from production for about a month to one and half a months and then starts again. According to her, a local variety hen comes in production at the age of 5 months and lays 10-15 eggs at a stretch (one egg every day) and then becomes serious to go for hatching eggs and if allowed remains off for about 3 months, otherwise for 1-1.5 months. She has 2 local variety pullets and are laying eggs.

She spends about Tk.40.00 per week as poultry feed for her 23 fowls of different varieties and sizes. In her opinion, HYV rearing is preferred to the other two and poultry keeping as a whole is marginally profitable. It is interesting to mention here that this rearer won a prize in a poultry exhibition arranged by BRAC at Manikganj. She has no HYV cock and very eager to get one. All her efforts to get it from BRAC were futile. The rearer is an IGVD card holder and her IGVD monthly subscription of Tk.30.00 to BRAC is being repaid in exchange of HYV chicks, the price of which was not known to her. She feels it as an imposition on her by BRAC. Her poultry shed as well as the coop are in miserable conditions and needs immediate repair. She is seriously seeking for poultry keeping loan but failed. It needs to be mentioned here that her unmarried daughter took housebuilding loan of Tk.4,500.00 from BRAC which could be a possible hindrance in the way of getting poultry keeping loan.

Respondent 3:

She has been a group member of BRAC for 3 years. BRAC gave her Tk.300.00 as relief (according to her) to prepare her rear HYV chicks. Later on she deposited BRAC Tk.150.00 and received 10 HYV chicks each about 4-5 months old just before the last year's unprecedented flood. As she reported the price of each chick was fixed at Tk.52.00. The rest of cost price (i.e. Tk.370) is supposed to be reimbursed by BRAC when the aforementioned chicks come in production as per reimbursement package determined by BRAC. One chick died due to the flood and BRAC replenished it by giving her a new one free of cost.

To her utter frustration she mentioned that only one (out of 10) came in production at age 12 months and laid only 7 eggs (every alternative day) and then went off again. It needs to be mentioned here that her poultry population looks healthy and well fed. The respondent has no crossbreed poultry birds but has 3 local variety pullets of which one is laying eggs, one is hatching eggs now and the other is enjoying off period.

According to her the local variety comes in production at the age of 5-6 months and lays 12-15 eggs in a line and then goes for hatching eggs and remains off from laying eggs for about 3 months. If prevented from hatching it again comes in production cycle in about 15-20 days. She buys chicks feed worth about Tk. 45.00 per week from outside sources for her 14 chicks and has been continuing for quite a long time with the hope of good days to come. She reported her frustrations to BRAC poultry personnel who considered lack of proper management and balanced feed as the reasons for HYVs not laying eggs. She has no HYV cock and is very eager to get one to help crossbreed her poultry population.

In her opinion HYV is a losing concern and considers local variety profitable as it suits most in their socio-economic environment. In support of her statement she mentioned that already huge amount of money and resources have been used up to rear her HYV chicks which are yet to come in production. Even if they come in production now the proceeds will remain far below the spendings.

Respondent 4:

She has been a group member of BRAC for about 2 years. Like respondent 4, BRAC gave her a relief of Tk.300.00 which she spent in making poultry shed and coop. She deposited BRAC Tk.150.00 and got 8 HYV chicks each about 4 months old last October at the rate of Tk.40.00 each. The remaining Tk.170.00 was given as loan. All of her 8 HYV chicks are about 8/9 months old and are yet to come in production. She has no HYV cock. She has 5 local variety pullets and four of them are laying eggs now. The mode of laying eggs for local variety is same as mentioned by respondent 3. She also opined that local variety is much better than HYV.

Very recently she was given IGVGD card and received her first ration quota. She had paid Tk.100.00 to BRAC and was told that a part of it will repay the loan she received to get HYV chicks from BRAC.

Respondent 5:

This very respondent rushed to the interviewer seeing the interviewer leave without questioning her. Her home was so near to the 3rd and 4th respondents that it was not considered worth interviewing a 3rd person from that same area. She forced the interviewer to give her a patient hearing of her ordeal. She received 10 HYV chicks just before the last year's flood, each one was about 5 months old then. Each chick cost her Tk.52.00.

Now these HYV chicks are about a year old. With a note of utter frustration she mentioned that during the tenure of her rearing, these hens laid eggs worth Tk.70.00 only.

Her 4 local variety chicks are laying eggs as usual. She has no HYV cock. She spends about Tk.40.00 on chicks feed per week.

She considers HYV totally infeasible in her socio-economic conditions. She is also an IGVGD card holder.

Section - II

Chicks Rearer

Respondent 1:

The respondent initially took a loan of Tk. 500.00 to prepare herself for rearing day old chicks. The first lot of 100 chicks was given before the last year's flood but was sold after the flood. She made a net profit of Tk.1,150.00 from this first lot. The second lot of 200 chicks gave her a profit of about Tk.1,100.00. Less profit on the second lot was due to high mortality caused by electricity disconnection.

In both the lots chicks and necessary logistics were given on credit from BRAC and was reimbursed from the proceed of chicks sale. She does not maintain account all alone, BRAC helps her in this regard. In her opinion day old chicks rearing is a very good income generating avenue and wishes to get a bigger lot and to remain always busy in this work.

Respondent 2:

This respondent made a net nominal profit of Tk. 1,050.00 from her first lot of 98 day old chicks. At present she has another lot of 100 chicks.

- Likewise the other respondent the chicks and other necessary logistics were given from BRAC on credit and was reimbursed in the same way. She also opined that chicks rearing is very profitable and should be patronised and expanded by BRAC.

Summary Findings:

- a. The respondents reported that some of their HYV hens come in production at the age range of about 7-11 months and many others did not go for production even at the age of one year. On the other hand the crossbreed and local variety went for production at much earlier than the HYV.
- b. Reported laying rate for HYV was in the range of 147-151 eggs per year; while for crossbreed it was in the range of 115-212 eggs: and for local variety the range was 91-153 eggs if prevented from hatching eggs throughout. For a local variety hen when allowed regular hatching throughout, laying rate was in the range of 38-47 eggs per year.
- c. Respondents reported that HYV is costlier to rear and manage than the other two varieties. The laying rate of HYV as reported was even lower than the other two varieties in some cases. So HYV "is not profitable", "is a losing concern" were prominent feelings among the respondents. Vast majority of the respondents prefer crossbreed to local variety to HYV.
- d. Day old chicks rearing appeared to be very good income generating avenue. It is evident that rearing of 100 chicks for about two months can earn more than Tk. 500.00 per month.

Perceived causes of the problems:

- a. It seemed that the HYV chicks were not given balanced food and not well managed. Instead of feeding them mess (mixed poultry

feed) food, they are mostly fed kura (blend rice husk) and sometimes wheat husk. In the process the women are injecting in reasonably good amount of their hard earned money but yet the cake remain halfbaked, which deprives them from reaping desired results (income) from rearing HYV chicks.

- b. It could be one of the facts that HYV poultry needs controlled environmental conditions, which may be difficult to maintain in the adverse rural socio-economic conditions and in a country like Bangladesh where environmental condition is changing very abruptly. It also seems that the rearers are not adequately trained to keep track with the changing environmental conditions.
- c. The observed HYV breed among the interviewed rearers was mostly white leg horn and may not suit to their enviroinmental condition.

Recommendations:

- a. In the past poultry birds mostly grew up eating and cleaning up the remnants of agricultural harvests. The rearers of the concern study are either landless or near landless and hence the birds, do not have that opportunity. Thus their poultry birds either share their food or eat the feed bought from outside sources It seems that mere negligence, lack of knowledge and motivation are the reasons why they feed their poultry birds imbalance food (mostly kura). To make this age old activity profitable and lucrative one, rearers should be motivated to give poultry birds balance mess food and should make them (rears) understand that unbalanced food take them half way through; earns practicably nothing while addition of little more resource would make the whole thing remunerative. In addition poultry loan should be packaged in a way that it somehow compells them to feed

mess food. This may be better done by giving them feed loan instead of loan in cash.

- b. Poultry rearing seems very sensitive to changing environmental condition. In our rural socio-economic situation, such environmental conditions can hardly be controlled. So BRAC may undertake an experimental study to find out which of the available HYVs suit our condition best.
- c. It is evident from the respondents statements that most of them are not having at least one HYV cock to help them crossbreed their poultry population, which is the major thrust of the poultry program. Lack or absence of HYV cock (at least one per rearer) among the rearers is difficult to understand, because in the stream of incoming HYV poultry birds the ratio of male to female is almost 1:1. Why should this persist? The program official/personnel should seriously look into the matter and should take positive steps to ensure at least one cock per rearer.
- d. Crossbreed seems to be the most popular variety among the respondents. So different combinations of HYV cock and local variety hens species should be tried to come up with a best crossbreed variety. Toward this end, if possible and feasible a research work may be undertaken. The Rural Enterprise Project (RDP) may look at this.
- e. It is evident that day old chick rearers are making good and brisk profit. Rearing 100 day old chicks day for about two months can earn a rearer more than Tk. 1,000.00. It needs to be mentioned here that in most cases the rearer's capital investment is small. A balance in the profit margin of household rearer and that one day chick rearers should be made in order to ensure a better future of the program meagre.