

CLP Market Assessment

Market system for *desi* chicken /eggs – Gaibandha chars

Abdur Rob

Practical Action Consulting

December 2010

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1. Introduction

1.1 Objective of this study

To examine opportunities for market development in the poultry market system (for *desi* chicken and eggs specifically) that is important for CLP participants in Gaibandha. Identify the main market development opportunities, outline support needs, and identify actors and resources needed to realize more reliable income and employment opportunities.

To produce an exemplary market-system report that demonstrates market-system mapping and illustrates the kind of results, findings and recommendations that can be expected to emerge from using a market development approach in design of future interventions.

To orientate key staff in the CLP market development unit to the market-system mapping approach – through their active participation in the fieldwork planning, data collection and interpretation of results.

1.2 Rationale for selection of *desi* chicken market-system

Raising local varieties of chicken (*deshi*) for meat and eggs is one of the activities that shape the livelihood strategies of poor households on the chars. *Desi* chicken are traditional varieties of poultry that are less productive than hybrid birds, but also require lower inputs and standards of care. Raising and producing *desi* birds is an activity that shapes the livelihood system of the poor people living in rural Bangladesh. Rearing of *deshi* chicken is a relatively low-input activity, but provides households (women in particular) with a source of both steady (sale of eggs) and emergency (sale of birds) income. It is therefore important for household food security. Under CLP1 an estimated 12,000 core participant households were earning a small but regular income from sale of eggs, and there appears to be good potential to improve this. Chicken rearing also has social and cultural importance in terms of gifting, donating for religious purposes or entertaining visiting relatives.

However, due to traditional technologies, high disease prevalence, nearly non-existent extension service, they lose almost the whole flock of chickens every year. As all the core beneficiary households are involved in *desi* chicken rearing, this market assessment can be useful to CLP in understanding the market chains, supporting markets and business environment. Based on this study, CLP can also decide intervention promoting beneficiaries' access to market, inputs and services.

Demand for *deshi* chicken meat appears to be stable as indicated by prices in rural markets. The product is valued distinctly from the hybrid chicken reared by commercial poultry businesses, and these two markets appear to be relatively segregated.

2. Location and Methodology

2.1 Locations of assessment

The assessment was conducted in Hatibandha, Jaldhaka and Gangachara Upazilas in Lalmonirhat and Kurigram district where CLP has started its second phase of programme since April 2010. The locations were chosen to see competitiveness of *desi* chicken value chains and exploring options for supporting CLP core beneficiaries selected under second phase.

2.2 Methodology

A 6 member team (comprised of CLP staff and staff of its implementing organization) was formed and led by a senior staff from CLP market development unit. The team attended a 3 days orientation on market

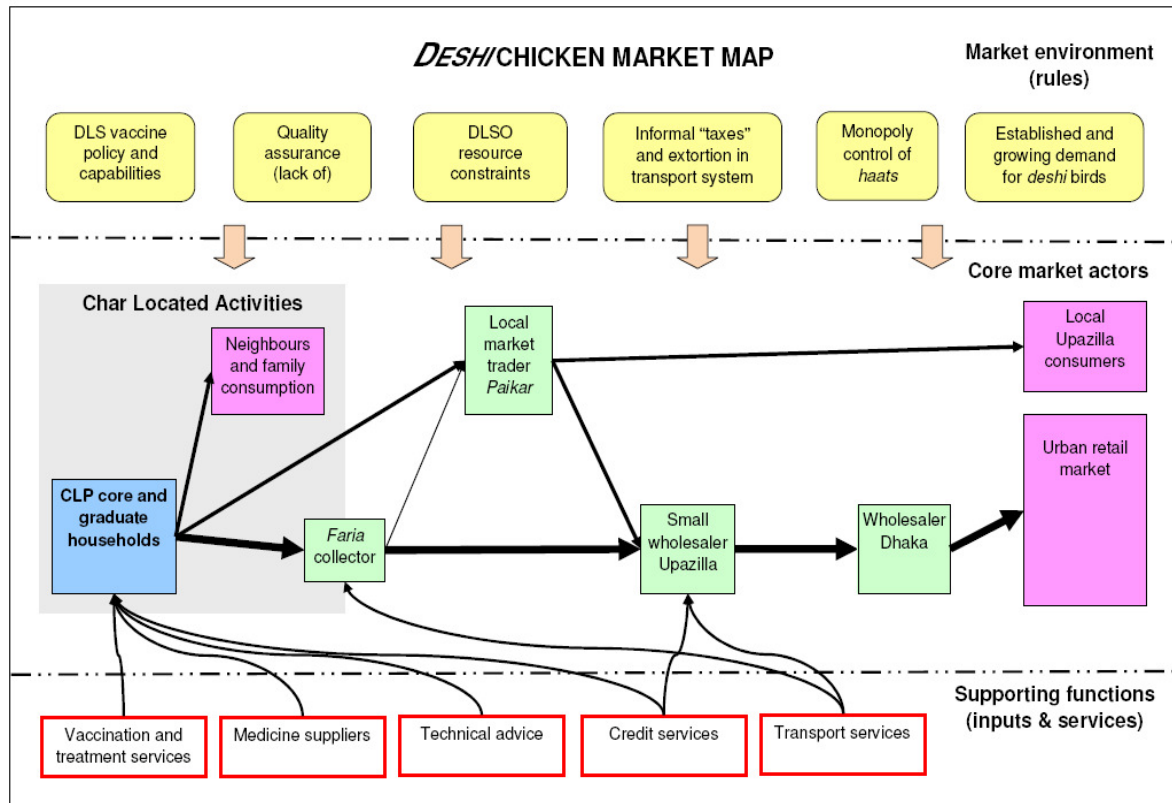
assessment. Desk information review; primary data collection through in-depth interview; focus group discussion; PRA exercise on seasonal calendar; participatory market mapping workshops with market actors and stakeholders were the main methodology of the study. Study tools were developed for collecting information from the following market actors and stakeholders in the selected. Actors interviewed or participated in focus group discussion include:

- 45 farmers
- 3 Feed seller
- 3 *Faria* (middlemen)
- 3 Rural wholesalers (Aratdar)
- 3 Livestock service providers
- 3 Banks and MFIs
- 3 ULOs

Limitation of the study

The timing of this research was inconvenient for two reasons: Many informants were busy preparing for the Eid ul Azha holiday. Many local government officials were engaged in school examination duty. Time for collection of information was short. Besides, lack of past studies related to this area of interest in the study area in particular and in the region in general was another limitation of this study.

3. *Desi* chicken market system



3.1 Core market-chain functions

Chicken raising: breeding, hatching, feeding

Desi chicken or Indigenous local breeds are generally raised in family poultry production systems. In the study area, 95% char households keep scavenging *desi* chicken. Mainly women and children are responsible for chicken management practices.

Housing: In most cases, chicken and chicks are kept in main house of the farmers. Only a few households have separate pen for chickens. Average flock size varies from 7- 15 chickens. None of the char dwellers involved in commercial poultry farming due to lack of electricity or infrastructure.

Breeding: The birds are left to natural selection from the village birds. Under this system, productivity of newly bred *desi* chicken depends on parent stocks found in family flocks or in the village. In study area, some *desi* chickens are found crossbred with diluted Sonali breeds. Information about morphological character of such birds is not readily available.

Hatching: Each hen produces 10 -12 eggs in a row, 2-4 time a year and then sits 2 to 3 weeks for hatching chicks. In this system, chicks' mortality rate is very high (50%-60%). CLP has already introduced a more efficient natural hatching system in the area that includes proper feeding and improved nest for laying.

Feeding: The food intake of scavenging birds varies from place to place according to the seasons, the crops grown and the natural vegetation available. Feed supplements, including household waste (cooked rice), broken rice, kaown/china and wheat have a positive effect on egg production and body weight of scavenging birds. But these feed supplements are not planned and therefore cannot formulate the ingredients as balance rations.

Chicken collection, transportation and marketing

Women are involved in marketing at farm gate where as males sell in local market or town. The marketing chain is simple and undeveloped with no market infrastructure apart from for some stalls in towns. Traders are constrained with permanent market place, and existing diseases which cause immediate loss.

Foria or middlemen are involved in this function; they rely on walking or bicycle and boats to collect eggs and birds from the villages. They supply to mainland local market traders or rural wholesalers with whom they have a supply relationship. Farmers interviewed reported that due to transportation and capital shortage, the collector buy 30-40 birds or a small basket of eggs when they come to village. Sometimes, considering the demand, the local market traders extend some credit to this *forias*. In rainy season, the *forias* cannot visit char regularly.

Local market traders buy from *foria* and farmers on market day or throughout the week and then sell to wholesalers who supplies to destination market in Lalmonirhat and Kuriggram district town or end market in Dhaka.

Wholesalers export *desi* chicken in several big baskets on the rooftop of public bus or trucks for transportation. In this system, bus driver takes a number of birds as gift to ensure safe transportation and delivery to the destination. Wholesalers take a number of extra chickens from market traders which they offer to bus drivers.

Retailing: Many actors such as farmers, local market traders, and head load traders at different points of sale ranging from village to Upazila, district town and super markets in Dhaka are involved in retailing. Therefore, price variation at different levels is obvious.

3.2 Rules / Business environment

Growing demand for *desi* chicken

Desi chicken raising is part of local culture and livelihood improvement. Both rural and urban consumer prefer *desi* chickens and eggs for curry, pilao rice or *biriani* rice because these taste better than broiler meat and commercial layer eggs. The prices for *desi* chicken meat and eggs are often higher. The good thing is almost all farmers raise chicken, make the market supply regular and stable. Large commercial companies are not involved in mass production of *desi* chicken that leads a strong competition with poor and small farmers

Consumers in urban and semi urban area of Lalmonirhat also rear *desi* chicken at the household level. Apart from buying, they try to meet consumption need from household production. They also buy exotic birds for consumptions during festival or family event like birth day party. It suggests that there is a competition in poultry meat supply, consumption, and choice between indigenous and exotic birds.

In large towns and Dhaka cities in particular, consumption of exotic birds is more than that of *desi* chickens. The trend is mainly observable from fast food shops that serve grilled chicken and potato chips. Despite this newly emerged consumption patterns, the *desi* chickens are also preferred by individuals buying from open markets for home consumption. The demand for *desi* chickens from these individual consumers is gradually increasing.

There are 30 market traders and 14 fourteen wholesalers in Hatabandha, Jaldhaka, and Gangachara Upazila. The market traders sell 800Kg-1000 Kg a day to local consumer out of which 80% is *desi* chicken. They buy a bird at Tk. 130-Tk140 and sell Tk. 150-Tk160. Fourteen whole sellers export 8000 Kg a day to Dhaka. They sell a bird at Tk.170-180.

Local customers' prefer 700-900gm chicken for consumption. Substitute meat products are duck, beef, and mutton. The whole sellers informed that there is huge demand for *desi* chicken in Dhaka. But they are constrained by working capital. They mentioned that the haat tax per single cage of birds is TK. 80, which they think is very high.

DLS vaccine policy and capabilities

Currently, one government livestock officer deployed at each Upazila having to provide livestock services to about 200,000 poultry and 50,000 cattle and sheep with the help of only 4 field level staff. The system suffers serious limitations of human power, logistics and outreach. As a result, the rural scavenging system neither have their own vaccination programme nor access to Government's vaccination services creating high risk conditions for rearers.

Quality assurance

While discussing with Upazila livestock officers, it came out that the government does not have any effective control over import of poultry vaccines, leading to import of substandard vaccines which rather cause new diseases to poultry birds. There are some pharmaceutical industries manufacture vaccines locally but Department of Livestock Services does not have any mechanism to ensure the quality of the products.

Unchecked import of inferior quality drugs is another problem that affects both desi chicken and exotic poultry rearing. It poses threat to public health also. The drug administration usually gives permission for import of different antibiotics, anti-bacterial and anti-virus drugs, while no permission is required for products like drugs feed supplements.

Industry coordination

Industry coordination is such a mechanism that allows value chain actors to work with other agencies for synergies, knowledge-sharing and effectiveness. The participation of the stakeholders such as farmers, livestock service providers, middlemen, wholesalers and consumers is needed for programme development.

Coordination for disease and animal health management — provision of value-adding extension services through the para-extension knowledge is essential for increasing production of desi chicken. However, there are only a few informal veterinary providers available in the study areas who work with farmers on demand. With training, demonstration, supply of quality inputs and advisory on production they can help farmers develop adaptable stock.

Farmers and Faria or middlemen are working closely. But wholesalers have no relations with farmers and therefore they rarely interact with farmers. Farmers and this marketing people can work together for improved outreach in information provision and enhanced bargaining power in the market. Their collaboration on enterprise education, training and support services to the value chain have a better channel of delivery; outreach is also enhanced through this process.

3.3 Supporting functions

Vaccination and treatment

Vaccination: There are three viral, three bacterial and one fungal disease were prevalent in the study areas, namely, ND, Fowl ND, Fowl pox, IBD, salmonellosis, colibacillosis. Among these diseases, Newcastle Disease is very common; it requires three vaccinations during the six-month growing phase of pullets and cockerels. Depending on local conditions, between two and three vaccinations per year are needed for adult birds. A reliable supply of vaccine, with a cold chain for storage and distribution is critical here. Many char farmers, however, are not aware of vaccine and therefore do not vaccinate their desi chicken until disease outbreak.

The livestock officer in all three Upazilas mentioned that they carry out vaccination programme with an emphasis on NCD usually by designated Para Professional staff and trained poultry vaccinators. But due to shortage of these Para Professional, vaccine, and logistic resources, they cannot extend this service to the char. Farmers reported the study team that it is nearly non-existent in char.

Some individuals in the village work as vaccinators but their services are constrained by inadequate training and communication and vaccine supply from DLS. The service providers interviewed mentioned that farmers cannot afford private company produced vaccine for desi chicken because of high price.

According to the ULOs it has been learnt that vaccination programme for desi chickens is a difficult undertaking due to post vaccination monitoring and poor laboratory facilities at Upazila level.

Treatment: In desi chicken rearing, consultations with poultry and livestock service providers are either absent or too limited. Farmers generally use aspirin, capsule-antibiotics (for human ailment) bought from rural market for treatment. This happens because farmers lack knowledge about availability of modern drugs, inadequate resource to seek advice from veterinarians and faith in traditional knowledge on poultry management through use local herbal medicine.

Feed

Desi Chickens are basically left independent – on free scavenging to look for food. A woman winnowing grains, threshing rice or maize would throw some of the leftovers that chicken will feed on. Therefore, there is no commercial feed seller in the village selling feed for desi chicken.

Financial services

There is no provision for financial service for IGAs on desi chicken rearing. A woman attached to savings and micro-credit group, takes loan for other purposes and divert a portion to buy a flock of desi chickens mainly with a strategy to repay loan installment on a rainy day.

Technical Advice

Though desi chicken production has a long history in area, commercialization of technical advice is almost absent except farmers to farmers knowledge sharing. This is the weakest point within the market chain. DLS training and technical advice is mostly focused on commercial poultry production. In this context CLP's initiative towards developing private livestock service provider is an appropriate measure. With proper technical training and advice, some farmers can develop their potential to work as local extension service provider.

4. Problems and opportunities

Low inputs – scavenging- low output: Current homestead business model is not very lucrative, household are operating with a small flock of chickens. Flock sizes are highly variable and often exhibit subsistence economy. The producers are ignorant about breeds selection and sourcing for better production scale. BRAC-type model with larger number of exotic birds, caging (semi-scavenging system) and some feeding can help farmers increase production, productivity and income but this is not well known in the area.

Bird Mortality: Major problem is bird-mortality, and a vaccination / treatment system is essential. Managing chicken diseases remain a critical challenge among the producers due to inherent production systems – based on free range. Farmers in the study area do not feel the importance veterinary services, as they consider desi chicken raising is a side activity that does not call for specialized attention and commitment of resources. Current CLP approach piggy-backs this on the LSP system.

Apart from disease, farmers also lose their birds because predators such as snakes, rats, dogs, cats, foxes and birds of prey of theft.

Market Information: Farmers do not have much market information; selling price is set middlemen. Limited market information due to distance is limiting farmers' access to information. Farmers do not calculate the cost of production as do not need much investment cost.

Weak Market chain: Marketing-chain is weak due to low volumes (diseconomies of small scale) – reflecting above constraints, but also lack of coordinating function at 'char-level'

Credit for intermediaries: From poultry producers to traders and service providers lack operating capital. The CLP beneficiaries' ability to repay loan is low; it is a disincentive among credit giving organizations to focus in the char areas. Though there are likely potential channels for input credit which currently exist in crop production. Strengthening of the market-chain may require better access to credit for intermediaries

5. Vision for a better market system

5.1 Vision of sustainable outcomes

There is a coordinated improvement in access to health and productivity-related advice services, along with greater investment in feeding by households to increase number of birds, and a more active market coordination role for collectors (*faria*). Viability is unproven on chars – so this needs testing at a pilot scale.

5.2 Plausible intervention strategies

Scaling up of CLP strategies: Existing CLP strategies viz-a-viz vaccination / treatment are probably appropriate. This strategy can lead to an improved extension services and farmer training on good husbandry practices that includes housing, hygiene, feeding and health control. Improvement in techniques should be based on technologies and available local resources to reduce mortality rates.

Formation of chicken producer groups: Producer groups in a village should become the centre point of commercial inputs and service rather than the individuals. This is necessary because farmers' individual capacity to pay for service is still very limited due to poverty. The producer group's role to share knowledge would create economies of scale in procurement of inputs and services. The group can also establish farmers' market in suitable locations in char for bulking up and negotiations.

Market Coordination: Facilitate relationships between producer groups, *faria* and wholesalers – for better understanding seasonality of market demand, coordinating bulking up and transportation.

Capacity building support to service providers and market actors: Provide one-off business orientation trainings (or exchange visits) for vaccinators, *faria* and other intermediaries. Initial subsidies could also be tied with facilitation of extension services, flock building, direct investment in purchase of certain inputs for demonstrations, and costs cover for hosting service demand generation meetings, mobilization and kick-starting training work.

6. Conclusion

The *desi* chicken sector faces serious issues of low productivity and high mortality rates because of the lack of technical know-how and access to key inputs. The small farmers are also not getting much benefit from chicken through current market due to lack of market intermediation mechanism to help small farmers. The key recommendations for addressing the issues include customization of BRAC model for developing a profitable flock size, facilitation of farmers' organization, local service provider development through scaling up of CLP's LSP model, market coordination and capacity building support to market actors.