



Barriers to the Development of Livestock Sector in Bangladesh

This Policy Brief identifies the barriers to development of the livestock sector and makes specific policy recommendations for sustained growth of livestock products in Bangladesh.

1. Introduction

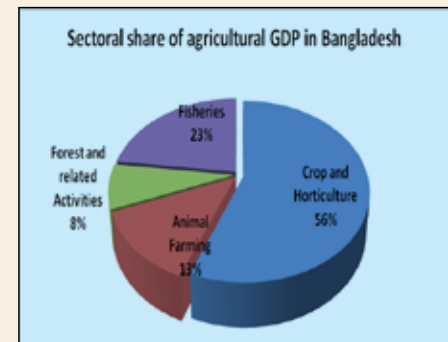
The livestock sector is important in Bangladesh, especially from the perspectives of crop production, food and nutrition security, poverty reduction, and employment generation. Poultry and dairy farming has specific advantages over crops, fisheries and forestry, as they require less land and are least influenced by seasonality.

This policy brief is about exploring the barriers to the development of livestock sector and suggesting policy recommendations to overcome the barriers so that sustainable development can be achieved in the sector which has significant growth potential. Moreover, it is the main source of animal protein for the people and provides employment to a large number of poor people and contributes to poverty reduction.

Despite being an important sector in Bangladesh agriculture, its contribution to the agricultural GDP is much less than those of crop agriculture and fisheries (Figure 1). The contribution of animal farming has remained largely stagnant with a share of around 13 percent of agricultural GDP over the

last two decades. A disaggregated picture, however, shows satisfactory growth for poultry (over 4.5 percent), followed by goats/sheep (around 4 percent) in recent years. The growth of cattle/buffaloes, on the other hand, is highly unsatisfactory and registering a growth of less than 0.5 percent.

Figure 1: Share of animal farming in agricultural GDP



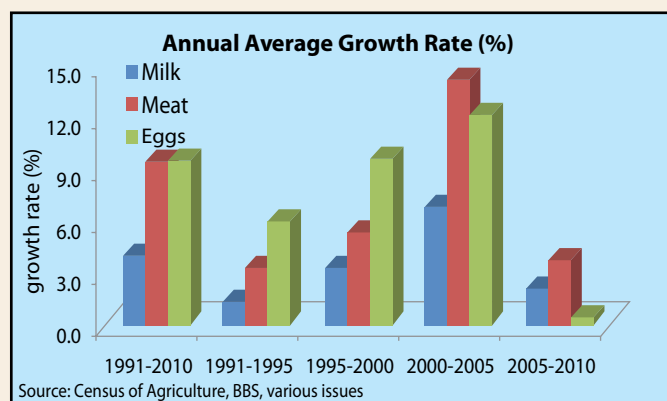
Source: Bangladesh Economic Review 2012, Ministry of Finance and authors' calculation.

Milk, meat, and eggs are the three important products of the livestock sector. Production of these products shows an increasing trend (except for 2005-2010). However, while the production of eggs and meat registered an impressive growth, the growth of milk production is relatively low (Figure 2).

¹This policy brief is based on the study, Barriers to the Development of Livestock Sub-sector in Bangladesh, carried out by Zulfqar Ali and Iqbal Hossain under the Policy Research and Strategy Support Program (PRSSP) being implemented by BIDS with support from IFPRI and USAID.



Figure 2: Annual average growth of livestock products



Per capita consumption of animal products has increased over the decades but the rate of increase is not uniform across different products (Figures 3, 4 and 5). Significant differences are also observed between rural and urban areas in respect of consumption of animal products. Consumption inequality between rural and urban areas is higher for meat products, especially for beef, compared to other products, and the inequality has been increasing in recent times.

Figure 3: Changes in consumption of animal products

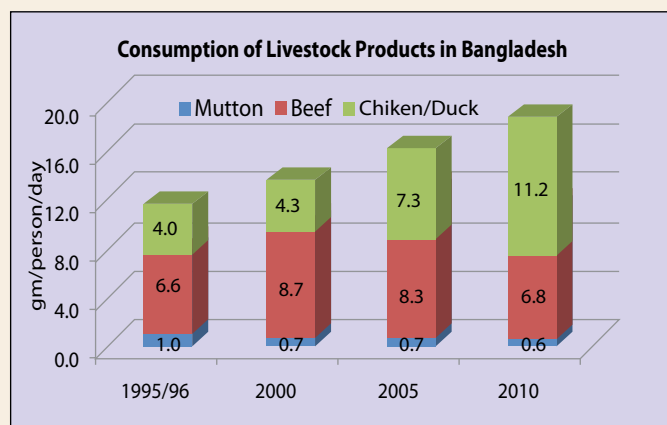


Figure 4: Changes in consumption of milk and milk products

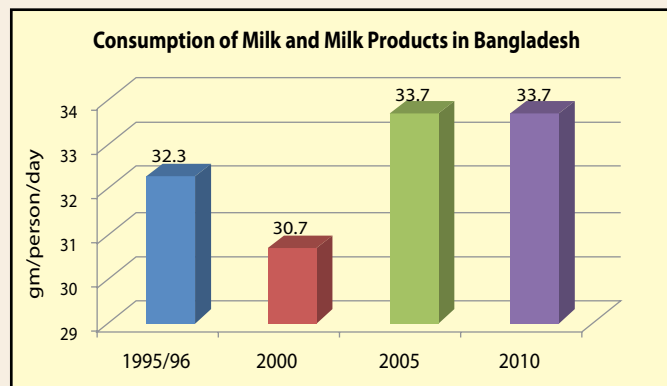
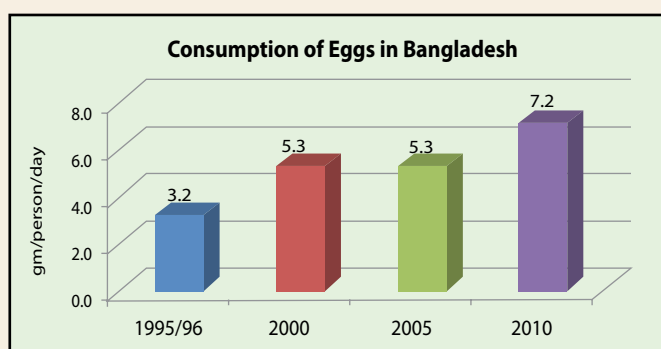


Figure 5: Changes in consumption of eggs



Regarding changes in the production base, it is observed that livestock population (of all three main categories) declined for both the medium (2.50 - <7.50 acres) and large farms (7.50 acres and above) between 1996 and 2008. However, the dynamics is quite different for the marginal and small farms (<2.50 acres). Their stock not only increased but also displayed impressive growth (36.0 percent for cattle and buffaloes, 28.4 percent for goats and sheep, and 14.4 percent for poultry over the same period). Moreover, for all three categories of livestock population, small and marginal farms continue to remain the dominant group in respect of rearing and producing the livestock population. While formulating any policy for livestock development in the country, this reality needs to be taken explicitly into consideration.

Available projections for demand-supply gap for livestock products show that the demand for meat will reach 4.05 million tons, 4.37 million tons, and 4.72 million tons in the year 2015 under low, medium, and high growth scenarios respectively. The demand for eggs will reach 9.71-10.36 billion by 2015 under the alternative scenarios. Similarly, the demand for milk will increase from 3.31 million litres in 2010 (base year) to 6.42-7.28 million litres in 2015. Using the trend growth rates over the 1999-2008 period (5.56 percent, 5.00 percent, and 4.81 percent for milk, meat and eggs respectively), the supply of meat is projected to increase from 1.11 million tons in 2010 (base year) to 1.41 million tons in 2015. Similarly, the supply of eggs and milk would increase from 6.09 billion numbers and 2.98 million litres in 2010 to 7.70 billion numbers and 3.91 million litres respectively in 2015.

The above shows that there would be a deficit of 2.51-3.37 million litres of milk, 2.64-3.31 million tons of meat, and 2.01-2.66 billions of eggs in 2015. It is, therefore, important to adopt appropriate policies to remove the barriers so that the sector can grow to its full potential and meet the future demand of the country's growing population.

Access to credit is important for the development of animal farming in the country. The use of credit for animal farming is quite small (only about 4.5 percent as against 43.3 percent for crop production). Increased access to credit for animal farming is necessary for all categories of farmers including the poor and subsistence farmers, farmers seeking to expand beyond subsistence level, and the commercial farmers. The poor and subsistence farmers dominate in number and they are also significant target groups for credit, particularly from the point of view of poverty reduction in the country. Microcredit is a major effort to reach out to this group. Farmers seeking to expand beyond subsistence level face formidable problems with regard to access to credit. These farmers require credit along with support services to venture into commercial production. The formal financial sector is yet to develop appropriate mechanism to cater to their needs. The commercial farmers, on the other hand, have somewhat better access to formal credit.

2. Challenges Facing the Sector

Several challenges facing the sector exist which need priority action to realize its potentials. These include, among others, the following:

- Wide yield gaps between the traditional and intensive and semi-intensive livestock farming.
- Lack of availability of high-breed animals including

knowledge and technological know-how of maintaining the high-breed varieties.

- Animal diseases are also among the most important constraints to livestock development. In fact, animal disease alone constitutes half of the causes of death of all livestock population.
- Policy and institutional reforms of the Department of Livestock (DLS) and its functional arms are of critical importance to induce changes necessary to meet the challenges emerging from globalization, trade liberalization and WTO regulations.
- Quality assurance is a critical factor constraining the future development of livestock.
- Lack of organized market for selling livestock products at fair prices is an important problem, particularly for the smallholders in Bangladesh.
- Inadequate coverage of animal health services.
- Lack of space and physical security of animal resources.
- Low investment in livestock research and its poor management are matters of major concern.





3. Policy Concerns for Livestock Development

Policy concerns in livestock development have a historical perspective which evolved over the past decades. While the initial thrust of policy was on government-directed development and control, the focus subsequently shifted to private-sector led development in the sector. In the early years, the development of livestock was initiated by the government through policy emphasis on disease control, research, and training which subsequently encouraged and motivated the private sector. The successive five year plans also emphasized the development of the livestock sector for its contribution to the economy in general and poverty reduction in particular.

The livestock sector has the potential of making higher contribution to growth and poverty reduction in the country if it is backed by appropriate policy support. The Ministry of Fisheries and Livestock prepared the National Livestock Policy (NLP) in 2007. This document provides a well thought-out account for the development of the livestock sector with three specific objectives: (i) promote

sustainable improvements in productivity of milk, meat and egg production including processing and value addition; (ii) promote sustained improvements in income, nutrition, and employment for the landless, small and marginal farmers; and (iii) facilitate increased private sector participation and investments in livestock production, livestock services, market development and export of livestock products and by-products. The NLP (2007) aims to address ten critical areas, of which three are concerned directly with the livestock production issues while the rest are concerned with providing support services. The production-related areas are: (i) dairy development, and meat production, (ii) poultry development, and (iii) hides and skins. The areas related to the provision of support services include: (i) feeds and fodder management, (ii) veterinary services and animal health, (iii) institutional development for research and extension, (iv) breed development, (v) marketing of livestock products, (vi) international trade management, and (vii) livestock insurance and credit.

However, the NLP (2007) seems to fall short of adequately addressing some important issues for development of the sector. They include: providing adequate support to the



private sector development, particularly of the small holders; exploring emerging markets and value chain development; and quality assurance of both inputs and products. Capacity development of the institutions responsible for overseeing and providing support to the sector is also critically important, which is lacking at present.

4. Policy Recommendations

Potentials for livestock development

Lack of adequate feed and fodder has been constraining the development of livestock in the country. There is ample scope for ensuring improved feed supply. Research carried out at the Bangladesh Livestock Research Institute (BLRI) and the Savar Dairy Farm on fodder production shows that high yielding fodder and legumes can not only compete with rice, but some high yielding fodder crops can be grown in seasonal rotation with food and fibre crops, while others can be grown as perennials with year-round production.

The incidence of animal and poultry diseases is quite pervasive, and causes significant losses. Emerging diseases are also a major cause of concerns in recent times. There

is also a scarcity of qualified veterinarians to treat the existing stock of 25 million cattle and buffaloes, 260 million poultry, and 25 million goats and sheep. A comprehensive programme is needed for combating diseases, in particular, to train veterinary technicians to identify and treat common diseases, and also to administer vaccines to prevent diseases. This was done on a limited scale for poultry in the past. Similar programmes need to be expanded to cover the entire livestock sector.

There is a need for a dual purpose animal which can provide draft power for cultivation and milk as well as meat for consumption. This could be achieved through cross-breeding of imported and domestic animals to upgrade indigenous cattle and buffaloes. Since imported breeds normally do not have adequate resistance to disease and do not thrive in the local environment, it is necessary to develop suitable breeds of animals through selection, cross-breeding, and appropriate management.





It is necessary to improve livestock management practices so that the farmers can take better care of their animals and can better understand basic nutrition and health of farm animals. This would not only improve the health of animals but would also make disease control more effective as farmers will be able to recognise common diseases and health problems.

Increased use of power tillers has the potential to replace cattle as the primary source of draft power. This replacement is desirable as it would alleviate the shortage of animal power for cultivation to some extent and an increasing proportion of cattle population would then be reared for meat and milk production. Given the shortage of animals for draft power and severe malnutrition problem in the country, it is desirable to encourage mechanical tilling which would allow limited pastures to be used for grazing animals for milk and meat production while still providing supplementary draft power for cultivation.

The livestock sector, still dominated by smallholder producers, has considerable potential to improve its productivity and the benefits to the rural poor can be

increased by appropriate policies of livestock management. Provisions of treatment facilities and other support services for the poor farmers should be given due importance.

Policy recommendations

The exploitation of the potentials for livestock development in general, and the growth of livestock products in particular should take into consideration the existing characteristics of livestock production in the country. These include: (i) the growth of livestock population has been rapid for chicken and slow for cattle and buffaloes; (ii) marketing structures are quite complex and markets are full of imperfections; (iii) the bulk of livestock products is supplied by smallholder farmers; (iv) since the farmers raise cattle and buffaloes primarily for draft power, productivity of these animals is fairly low; (v) productivity of animal farming is also low because of lack of knowledge, proper care and management; and (vi) chicken and ducks, raised in small flocks by rural households under the scavenging system, are the major suppliers of meat and eggs.

The smallholder farms own poultry, goats and sheep rather than large animals. The pro-poor policies need to



assess why poor households tend to own smaller animals, whether to support such ownership or to relieve constraints for increasing their ownership of large animals. A number of factors determine the livestock ownership pattern of the poor e.g. small animals require less capital to buy and maintain, simplify distress sales, and reduce risks of loss due to death or theft, they grow and breed faster, and can thrive on harsher conditions. These issues suggest two major policies to enhance the poverty-reducing role of livestock. First, the focus of livestock research, extension, and public goods provision needs to be directed more towards improving management of small animals in small lots (e.g. better management of infectious diseases). Second, barriers that constrain the poor's ownership of large animals need to be removed. An important policy approach could be to create institutional arrangements (e.g. through cooperatives or entrusting large animals owners) to perform management, finance, and sale functions of livestock products while ownership rests with small producers. Along with creating new employment opportunities, such policies

would provide inputs and services to small herd owners thereby removing critical constraints for them to emerge as profitable livestock farmers.

Although smallholder farmers produce more than 80 percent of meat and eggs, productivity per bird is low compared with semi-intensive and commercial systems. Homestead rearing of livestock is, however, increasing in recent times and they are also relatively more cost-effective than even the commercial farming due to involvement of women and children in caring of homestead livestock. In view of the above factors, the scope for developing the livestock sector and for expanding the productivity of livestock animals and birds needs to concentrate more on the following elements: increasing the productivity of smallholder farmers; expanding commercial production; providing extension,





treatment and other necessary services to the poor farmers; and ensuring better marketing facilities, especially for the smallholders and poor farmers. The following actions may be taken into consideration for development of the sector:

- Ensuring sustainable management of animal genetic resources emphasizing the localised nature of livestock production as well;
- Improving diagnostic capacity and veterinary clinical and extension services, and ensuring easy access to these services, especially by the smallholders and poor farmers;
- Ensuring feed and fodder at affordable prices to the small holders and poor farmers;
- Providing training to the farmers regarding improved animal farming;
- Managing the processing and value chain of livestock products efficiently and ensuring better market linkages, especially for the smallholders and poor farmers;
- Providing long-term credit at affordable rates to the smallholders and poor farmers; and
- Investing in research and development in the sector and improving the institutional capacities of agencies related to the sector.

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