Abstract

Study on Sustainable Development Conditions of Dairy Farming

-Case Study of Japan and Bangladesh-

酪農の持続的展開条件に関する研究

―日本とバングラデシュの事例研究―

Starting in the early 1970s, when Japanese economy increased steadily, livestock consumption especially consumption of milk and other dairy products grew sharply. But the consumption of rice has declined in the long term. Despite this, the consumption of milk and dairy products increased steadily. An average annual increase of 9.4% in daily per capita consumption was recorded between 1965 and 1975. Compared with rice and other traditional staples, the market for milk and other dairy products shows considerable room for growth and of great potential. In that way, dairy has been developed in Japan and has been continued to sustain. The biggest problem facing Japanese agriculture as well as dairy farm is the shrinking labor force and lack of young people willing to carry on operating family farms onto the next generation. Currently, only about 6.5% of all farms in Japan will be passed down to the next generation. In light of this, almost 93% of Japanese farms will disappear in the near future.

In case of successors' condition, this study empirically analyzed different scale of dairy farms through classification such as small scale (those have 2-48 cows), medium scale (those have 48-80 cows) and large scale (those have above 80 cows). In Saga Prefecture, the survey results indicate that small scale farmers were facing most of retaining successor. Medium and large scale farmers send their children to dairy specialized college for training and study, those who are continuing farming activities and can continue their own farm onto next generation. There are three farms who involves in "Sixth-industry" farming i.e. small, medium and large in size. The results indicate that successor of two farms engaged in farming activities along with processing units. Another successor is planning to continue the farming activities after retirement of his parents from farming as he is working in prefectural government offfice as veterinary doctor.

In Bangladesh, dairy is the most important livestock product produced by smallholder crop-livestock farmers. Milk production in Bangladesh increased from 1.29 million metric tons in 1987-88 to 1.62 million metric tons in 1997-98, to 1.74 million metric tons in 2001. However, current national production is inadequate to meet demand. Due to increased production import of powdered milk decreased from 55,000 metric tons in 1991-92 to 17,000 metric tons in 2001. Income elasticity of demand for milk is estimated to be 1.62 compared to 1.19 for meat and eggs in 1995-96, and these are projected to be 0.65 and 0.63 respectively in 2020. Milk production in the country needs to grow by 4.2- 5.6 percent per annum to meet increased demand.

Dairying in Bangladesh is practiced as a part of mixed crop farming system where most of the rura1 household keep cow in order to cultivate land and also to produce milk for family consumption. Cows are reared in very primitive way. It is seen from the history that, milk may not have been sold in many parts of Bangladesh where production was mainly aimed at subsistence consumption. In Bangladesh, most of the cow (about 80%) is owned by smallholder households. There were not many commercial dairy farms in Bangladesh. The commercia1 dairy farming in Bangladesh was started mainly after the Chernobyl disaster in former Soviet Union. Imports of dairy products from European countries were banned temporarily by the Bangladesh government in 1987. As a result, a number of dairy farms have grown up in private initiatives under incentive bonus program and dairy loan program that have been taken by the government. In general, most of 1he commercial dairy farms are

operating their activities under cooperative system in Bangladesh. Results indicate that dairy farming in this area is mainly carried out as main source of income in which women (34.4% of the respondents) contributes in agricultural activities. Integrated dairy farming and agriculture increases short term benefits to and long term sustainability of agriculture. The data reveal a greater use of family labor in dairy cows' care and delivering milk. Income from the dairy activities was used to meet/provide household expenses, savings, investment and insurance. Finding of the study reveals that Local Resource Circulation Systems (LRCSs) by means of farm management to decrease the cost, and increase the income and labor utilization in dairy-crop farming in the farm level. It has contributed to provide year-round working opportunities for the local people, utilize family labor effectively and provide a place for milk market low shipping and no storage cost.

However, the milk marketing and processing systems in Bangladesh are not yet developed. Milk being perishable item, need timely supply and special attention to market, makes the marketing more difficult (FAO, 1990). Generally, rural milk producers sell their surplus milk to various marketing intermediaries prevailing locally who in turn sell the milk to the individual consumers, restaurants & tea stalls in the urban area. Lack of organized milk marketing system in the grass-root level is a drawback for the farmers' position in selling milk. Earning money and improving production will be vulnerable if they are unorganized. Under these circumstances the farmers are unable to improve their socio-economic conditions. Cooperative marketing system could play a vital role in providing a channel that can link the farmers to the urban markets/consumers smoothly and ensure higher price for their products. It was observed that cooperative members were bringing milk to the milk collecting point twice a day, morning and evening. It was also observed the veterinary team and extension officials from Baghabarighat milk shed area are visiting Potazia primary cooperative at least once a week. Available services provide them an opportunity to develop their cooperative and dairying.

The study found the extent of sustainable development of dairy farming in Japan and Bangladesh. As, it found the successors' condition in different scale of dairy farms and also found sixth industrialized farm to retain successor. In Bangladesh, farmers are being continued their support and membership tenure in cooperative society in the long run to sustain their farm.