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Research Paper Science

India's Small Holder Dairying In Liberalized Era

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ABSTRACT *India is largest milk producing country in the world with production of 121.8 million tonnes of milk in 2010-11. India's dairy industry is characterized as small holder dairying, totally different from other large milk producing countries of the world. Indian dairy industry was a protected sector till 1991. In 1991, India adopted liberalization policy. The dairy industry was delicensed in 1991. India is member of World Trade Organization (WTO). Both this changes has significant influence on Indian dairy sector. This paper highlights the growth of Indian dairy industry, strengths-weaknesses-opportunities and threats of Indian small holder dairy industry, challenges faced by Indian dairy industry in liberalized era and strategies to overcome challenges.*

KEYWORDS:Small holder milk producer, Dairy, Anand Pattern, Cooperatives, Liberalization

Introduction

The dairy sector acts as a vital growth leverage of the Indian economy. It is the single largest contributor of agriculture sector to India's gross domestic product (GDP). India's livestock sector is one of the largest in the world. In 2010-11 livestock generated output worth Rs 2075 billion (at 2004-05 prices) accounting for 4 per cent of the national GDP and 26 per cent of the agricultural GDP. According to Economic Survey 2011-12, agriculture including allied activities accounted for 13.9 per cent of the GDP in 2011-12 as compared to 14.5 per cent in 2010-11.Milk is the main output of livestock sector accounting for 66.7 per cent of the total value of output of livestock. Dairying contributes close to the third of the gross income of rural household and in the case of those without land it attributes nearly half of their gross income.

In developed world the dairying activity is carried out by farmers in organized way having large animal and land holding. In developing countries, small holder dairy activity is practiced, which is defined as unorganized dairy activity carried out by small, marginal and landless milk producers keeping one or two dairy animals. In Asia, small holder dairying is a major form in which India's contribution is largest.

Growth of Indian Dairy Industry

India is largest milk producing country in the world. The milk production in India was 121.8 million tonnes in 2010-11, with annual growth of milk production of about four to five percent. Distribution channel of Indian dairy industry consist of both organized and unorganized sector. The organized sector consists of cooperative, government or private dairy. The organized sector handles twenty percent of milk. Rest eighty percent is still handled by unorganized sector (Anon. 2012). Milk production starts as a one to two litres from the small holder village milk producers, which forms flood of thousands of litres of milk per day through organized and unorganized network. In the organized dairy industry, the cooperative dairies have a sixty percent market share.

The dairy cooperative network as on march 2010 includes 177 milk unions, operates in 346 districts, covers 140227 village level societies and is owned by around 14 million farmer members of which 4 million are women (www.nddb.org). This co-operative set up is called as "Anand Pattern". In India, approximately 350 million farmers (70 million rural households) keep dairy animals. Out of these, 260 million farmers (52 million rural householders) are small, marginal and landless (Banerjee, A. 2008). The number of dairy animals kept by these small holder dairy farmers is generally one or two. From this, about 65 million farmers (13 million rural households) are member of co-operative dairy organization, who gets the benefit of regular remunerative payment based upon quality of their milk. This is one of the greatest benefits to small holder milk producers. Milk being perishable commodity, in the absence of such regular remunerative market, there will be economic loss. Anand Pattern structure also provides other necessary amenities like veterinary aid, cattle feed and farm implements, credit facilities and bonus at their doorstep.

Strength, Weakness, Opportunity, Threat (SWOT) analysis of small holder milk producer

Strengths

1. Cattle are the foundation of Indian agriculture for small and marginal milk producers. Milch animals are probably only tangible assets and mainstay for their socio economic security. Dairy farming helps in increasing agriculture production by providing draught power, manure and cash income regularly by sale of milk. India ranks first in cattle and buffalo population. It accounts for nearly 56.7 % of world's buffalo population and 12.5 % of cattle population. Livestock has been an important source of livelihood for small farmers. They contribute about 16% to their income. (Animal Husbandry and Dairying report submitted to planning commission for 12th five year plan, 2012-17)
2. Dairying provides employment and supplementary income to large number of rural families especially women.
3. Crop residues and by products are fed to the farm animals as part of mixed farming system which proves economical.
4. The buffalo is India's dairy animal accounting for more than half of India's milk production. Buffalo milk is preferred for higher fat and total solid content.
5. Cooperative set up provides assured market to small holder milk producer throughout the year for their milk which is perishable in nature. Dairy cooperatives are managed well so as to give higher returns to their member milk producers. The packaged milk segment is dominated by the dairy cooperatives. 'Gujarat Co-operative Milk Marketing Federation' is the largest player. All other local dairy cooperatives have their local brands (Gokul, Warana in Maharashtra, Saras in Rajasthan, Verka in Punjab, Vijaya in Andhra Pradesh, Aavin in Tamil Nadu, etc).

Weaknesses

1. Low productivity of milch animals: The average milk yield of a cow in India is much less than in many other countries. About seventy percent of the cattle are dry and the others give an average of just one to two litres of milk per day. The average yield per animal for desi cows is 1.78 kg per day, 6.46 kg per day for cross bred and 3.91 kg per day for buffaloes. The average annual milk yield of Indian cattle is only 1172 kg (50 % of world average). (Animal Husbandry and Dairying report submitted to planning commission for 12th five year plan, 2012-17)
2. Shortage of quality dairy animals. The coverage of artificial insemination service for breeding better milch animals has a limited scope.
3. Inability to provide quality feed and fodder throughout the year acts as a limiting factor to higher milk yield.
4. Limited market support for small holder milk producers of remote area.
5. Limited government investment in setting up or expansion of milk procurement network coupled with poor infrastructure for transport of milk from rural to urban consumer centres.
6. Lack of appropriate training facilities in the field of modern animal husbandry practices especially for women.
7. Lack of timely credit facility for purchase of feed and fodder, healthcare and other inputs.
8. Poor quality of milk: Bacteriological quality of milk is very poor, containing higher microbial load, pesticide residue, heavy metals etc.
9. Development of dairy sector has occurred only in favourable/ high milk producing areas.
10. In some of the cooperative dairy unions, management is in the

hands of handful of elected members who had no management skills. Village factions and existence of vested interests at village cooperatives, political affiliation vitiate the environment at society and union level.

Opportunities

1. Demand: Demand of milk and milk products is absolutely optimistic with the increase in population and their income. It will grow to upto 200 million tonnes by 2021-22 (Walli, T.K. and Ponnusamy, K 2007).
2. With the reduction in subsidies to milk production of western world by their respective countries, India's low cost milk will become price competitive, benefitting small holder milk producer.
3. Milk yield of dairy animals can be increased through better use of crop residues and byproducts by upgrading them.
4. Value addition of milk: Innovation and value addition is done by organized dairy sector continuously. Its fruits in the form of higher price/return is realized by associated small holder milk producer.
5. Export potential: Efforts to exploit export potential by organized co-operative dairy sector in liberalized era will increase profits for small holder milk producer. Geographically India is surrounded by milk deficit countries which increases export possibilities.

Threats

1. Inability to kill the unproductive milch animals due to religious and social reasons put additional economic burden on small holder milk producer.
2. The high cost of credit by moneylenders.
3. Increasing cut throat competition from private dairies both from national and multinational organizations.
4. Stringent conditions on quality milk production due to WTO implication.

Challenges and strategies

In the liberalized era, small holder milk producer is faced with many challenges viz dominance of unorganized sector, lack of exports, poor milk procurement in terms of quantity and quality, discriminating policies of developed world etc.

At present only about twenty percent of milk is handled by the organized sector. Thus large numbers of small holder milk producers are still not able to avail the benefits offered by co-operative setup. The organized dairy sector would need to expand their coverage.

India is largest milk producing country in the world but its share in world trade of dairy products is negligible. To increase exports, effort should be made on improving quality of raw milk, improve hygienic standards, formulate a consistent export policy.

To improve the quantity and quality of milk, appropriate attention is required to be placed on cattle breeding, healthcare, feed and nutrition. For improving the breeds, careful cross breeding policy which promote indigenous breeds which have more immunity to infectious diseases and ability to cope with higher temperatures and inferior feeds should be aimed at. More number of artificial insemination centres should be established and embryo transfer technology is to be made economically viable proposition. It is necessary to organise regular training programmes for small holder milk producers to make them aware of effective breeding programmes, availability of veterinary drugs and antibiotics, satisfactory hygiene conditions for housing, cattle etc.

Feed contributes to approximately 70 % in the cost of milk production. Decreasing the cost of feed and increasing its nutritive value by adopting scientific technologies like feeding by pass protein, ration balancing, appropriate area specific mineral mixtures etc can significantly increase the income of small holder milk producers.

International trade in dairy products is greatly distorted by the huge subsidies in one or the other disguised forms provided by the developed countries both for production as well as exports. In India, milk production is primarily done by small, marginal and landless farmers. They do not receive any subsidy. Such a discriminating global trade scenario adversely affects the small holder milk producers of India. The government of India should take right stand/steps at various WTO meetings to protect the interests of small holder milk producers of India.

Conclusion

Indian dairy industry is dominated by small holder milk producers. It is characterised as labour driven small holder enterprise, using economical domestic technologies and aiming at socio economic benefits. It is necessary to transform this structure into a productive and technology based entirely profit driven commercial enterprise like that of developed nations in the liberalized era.

Anand Pattern model of dairy organization is very advantageous for small holder milk producers. In the liberalized era it is necessary to further strengthen it with new concept of 'Producer Company' to compete at par with other competitors. In producer company, there is reduction of government control and can function similar to any private company.

It is necessary to face the challenge and find the joy of achievements of small holder milk producers and empower them in liberalized era.

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