Strategy for Dairy Development in West Bengal, India

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

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By

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Abstract

Perspective: The agriculture and allied sectors are the backbone of the Indian as well as West Bengal's economy. The contribution of agriculture and allied sector to West Bengal State GDP is 16.64 % out of which the livestock sector alone contributes 4.30 % (2013-14). Thus, more than one-fourth of the agriculture and allied sector output comes from the livestock sector. Further, livestock output is Rs.288.75 billion (at constant prices) in 2011-12 out of which the contribution of milk alone is Rs.136.16 billion (i.e. 47.15% of livestock output). This necessitates the growth of the dairy sector to avail the crucial economic support for marginal, landless dairy farmers, women employment etc. However, statistics of milk production in West Bengal for the last 18 years is not much promising. Milk Production has grown from 35.15 lakh Tonnes in 2001-02 to 56.07 lakh Tonnes in 2018-19 at an overall growth rate of 3.30% in West Bengal whereas major dairy developed states like Rajasthan, Gujarat, Madhya Pradesh have grown at the rate of 11.39 %, 8.18% and 11.17% respectively. This poor growth of milk production in West Bengal suggests an appropriate strategy to accelerate the growth process. It necessitates a detailed review study keeping in view the existing challenges and opportunities, overarching viewpoints in relevant areas to identify and indicate the required intervention to reach the objective.

Objectives: Four major research objectives are constructed for the research study. 1) To identify the key internal factors responsible for the sustainable growth of the Dairy Sector. 2) To identify various Business Environment factors essential for the development of the Dairy Sector. 3)To analyze the comparative position of West Bengal to other major dairy developed states of India based on key internal and business environment factors and thereby to identify factors responsible for the slow growth of the Dairy sector in West Bengal. 4) To formulate strategies to overcome the slow growth of the dairy sector of West Bengal.

Research Methodology: Present research study is dependent on secondary and primary data. The study has considered fifteen major milk-producing states which contribute more than 90% of milk production in India. States are Gujarat, Karnataka, Uttar Pradesh, Uttarakhand, Punjab, Rajasthan, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Haryana, Maharashtra, Madhya Pradesh, Bihar and West Bengal. Subsequently, Key Internal Factors (i.e. micro factors) and Business Environment Factors (i.e. macro factors) are identified. Identified Key Internal Factors are categorized as Critical (viz. i) Feed resources, ii) Veterinary facilities and

iii)Veterinary Services), Major (viz. Milk handling facilities) and Minor (viz. presence of Centers for Semen Production, Artificial Insemination, Fodder Seed Production etc.). Identified Business Environment factors are i) Logistics facility, ii)Procurement price of raw milk, iii)Institutional impact iv)Consumption trends of milk, milk products and non-veg items, v)Government assistance through Dairy Development schemes. Secondary Data are collected from a number of authentic sources like Govt. of India, the State Govt., NDDB etc. for the period of 2000-01 to 2018-19. i.e. for 18 Years. Before findings of causal factors, the comparative status of dairy development of West Bengal vis-a-via major dairy developed states is assessed based on key growth indicators like i) Milk Production, ii) Growth Rate of milk production, iii)Yield iv)In-Milk Bovine Population etc. Subsequently, West Bengal and major Dairy Developed states are compared based on key Internal and business environment factors through an Excel-based Rank Function and Graphical analysis (as and where needed) leading to the identification of causal factors which are responsible for the slow growth of dairy development in West Bengal. The findings are further substantiated with the analysis of primary data (collected from i) Survey of Dairy Cooperative Societies ii)Case study of progressive Dairy Farmers from different states and iii)Opinions of Domain experts). Subsequently, appropriate strategies are formulated to overcome the challenges inhibiting the growth of the dairy sector of West Bengal.

Findings: Based on the growth indicators, assessment of Dairy Development Status shows that West Bengal is an average to the poor performer for most of the growth indicators. This has prompted to scan the Key Internal and Business Environment Factors. Based on Key Internal factors, critical factors viz. poor state of feed, fodder, pasture & grazing land and major factors viz. inadequate milk chilling and processing facility are found responsible for the slow growth of the dairy sector in West Bengal. Similarly, assessment of Business Environment factors identifies the poor state of Procurement Price, Institutional Impact and Consumption Trends of Milk and Milk Products and negligible assistance from Dairy Development Schemes of Government responsible for the slow growth of the dairy sector in West Bengal. Further, based on primary data, the findings show Procurement Price, Yield of bovine, Extension services, Fodder resources, and Consumption trend of milk and milk products as a few core factors for poor dairy development of West Bengal. Thus, comprehensive scanning has led to the identification of the overall challenges of the dairy sector in West Bengal. Keeping this in view, strategies are formulated to improve milk productivity, feed and fodder resources, veterinary extension service, institutional impact, raw milk price to milk producers, cold chain facility,

milk processing facility, utilization of dairy development Schemes, marketing network and creation of Milk Producer Companies. The researcher suggests Animal Resources Development (ARD) Department, Govt. of West Bengal as the focal point for breeding improvement programs to improve milk productivity. To improve fodder resources, a few approaches like maximum utilization of available area, climate-resilient production technologies round the year, unaffected fodder production under water scarcity etc. are to be considered. ARD Dept. in collaboration with State Agriculture Universities may administer the project. To manage the feed crisis, State Milk Unions need to set up cattle feed plants at different strategic zone in the state. Initially, it may go for production through 3rd party manufacturing. To improve Veterinary extension service, the approach starts with i) Identification of target areas and Establishment of a local task force. Improvement in Institutional impact may be initiated through the empowerment of the Dairy Cooperative Society with decision-making powers and providing insulation to the entity as far as possible from external institutions or political actions and creation of Milk Producer Company to have better Institutional impact. To improve in cold chain facility, Bulk Milk Cooler (BMC) and milk chilling centers can be planned in line with hub and spoke strategy as far as possible. To improve the milk processing facility, an appropriate revival policy is needed to attract new milk and milk product manufacturing units, if needed, through capital subsidy, renovation of existing old milk plants of State Milk Federation, if needed, enforcement of FSSAI to impact the quantity of milk processed. To improve utilization for Dairy development Schemes, ARD Dept. Govt. of West Bengal needs to form a dedicated committee to take up with Central Govt. authority for effective implementation. To provide remunerative raw milk prices to milk producers, raw milk pricing can be linked to the pricing of feed ingredients and inflation. To create demand for milk and milk products, West Bengal State Milk Federation may Strengthen e-commerce activities, promote nutritional aspects of dairy products. Besides, State Govt. needs to endeavor to set up the Producer Company in underdeveloped areas like Bankura, Purulia etc. and where co-operative reach is not available or non-functional. National Rural Livelihood Mission can be involved to promote it.

Practical Implications: This present study can help business students to understand dairy development strategy providing an insight into managing the dairy value chain seamlessly. Business Managers can understand both tangible and intangible factors of business growth and can handle the growth drivers accordingly. Entrepreneurs can take a proactive approach to strengthen the basic areas before much damage happens. Policy Makers shall utilize the study to fine-tune the strategy or any further in-depth study to find out interlinked factors for sustainable policy formulation.