

**Milk Value Chain in Rural Dairy Farming System in the Selected
Districts of Gandaki River Basin, Nepal: A Case Study of
Gorkha, Tanahun, Chitwan Districts**

**A Thesis Submitted to:
The Central Department of Rural Development Tribhuvan University,
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DECLARATION

I hereby declare that the thesis entitled Milk value Chain in Rural Dairy Farming System in the Selected Districts of Gandaki River Basin, Nepal submitted to the Central Department of the Rural Development, Tribhuvan University is entirely my original work prepared under the guidance and supervision of my supervisor. I have made due acknowledgements to all ideas and information borrowed from different sources in the course of preparing this thesis. The results of this thesis have not been presented or submitted anywhere else for the award of any degree or for any other purposes. I assure that no part of the content of this thesis has been published in any form before.

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RECOMMENDATION LETTER

This thesis entitled study on Milk value Chain in Rural Dairy Farming System in the Districts of Gandaki River Basin, Nepal has been prepared by Mr. Niraj Banskota under my guidance and supervision. I hereby forward this thesis to the evaluation committee for final evaluation and approval.

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APPROVAL LETTER

This thesis entitled Milk value Chain in Rural Dairy Farming System in the Districts of Gandaki River Basin submitted by Niraj Banskota in partial fulfillment of the requirements for Master's Degree (M.A.) in Rural Development has been evaluated and approved by the evaluation committee.

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ABSTRACT

The Research entitled **Milk Value Chain in Rural Dairy Farming System in the Selected Districts of Gandaki River Basin, Nepal is an academic research work for MA, Rural Development**. The General Objective of this study is to analyze the existing status of milk production and milk products value chain in Chanuli, Dumre and Palungtar. It studies the in-depth assessment of the milk and milk products marketing through identifying actors' factors and relationships.

The study follows descriptive and exploratory research design where both qualitative and quantitative information have been included. The universe of the study was 500 samples. The farmers providing at least 10 liters of milk production in the cooperatives were selected. Simple random sampling was used as respondents. The sample size was 18 % of the total universe balancing the same percentage from the existed milk cooperatives. Both secondary and primary data from the five major milk producing was collected covering the whole milk value chain from production to the market as well as the policy, regulatory and institutional framework under which the sub-sector is operating. Actively working intermediates (key informants) were also used. Household survey, interview, observation, focused group discussion and interview with the key informants were adopted to collect data. For this, structured questionnaire and guidelines were developed.

The GRB region is rich in animal resources as it owns ~20% of cattle population and ~30% of buffalo population of the country (MoAD, 2012). Cattle in Gandaki River Basin are almost entirely of the zebu type and are sources of milk. Buffaloes alone contribute about 84% of the milk production in the GRBs. There are approximately 1.5 million cattle, 1.5 million buffaloes, 0.1 million sheep, 2 million goats. Livestock production in pastoral areas system that supports an estimated 10% of population covers 50-60% of the total area.

The key actors in the formal dairy value system include milk producer farmers, MPCSSs, MCCs, and milk processing plants/cheese factories. Firstly, there are rural farmers and their function is to be engaged in milk production. The next are MPCSSs established in the rural areas, Milk and milk products were channeled to consumers

through both formal and informal marketing systems through private and DDC businesses.

The strength of dairy sector to develop the rural area is; strong dairy cooperatives with their presence from the grass root level i.e. rural area to the source of income.

The pragmatic weakness of the dairy sector were hygienic milk production/ lack of stringent measure on quality control / lack of awareness, scattered production and difficult geography- increased cost in collection and transportation, poor infrastructure for milk collection, chilling and transport etc.

The opportunities are wide as livestock are widely distributed with even distribution of cattle and buffaloes throughout, consumption of milk and dairy products is traditional but there is increasing gap between demand for and supply of milk and milk products, market opportunities of milk and milk products have increased particularly in the densely populated urban areas.

Compulsion for coexistence of productive and unproductive (old, male, diseased) cattle further depleting scarce feeding resources, poor competitiveness- upsurge in import of milk and milk products, , increasing cost of inputs including labor, shortage of labor- young generation seeking jobs overseas, reluctance of financial institutions on lending for agriculture, high opportunity costs of land and labour particularly around the main highways and townships where the dairy farming activities pragmatic threats of the milk producing areas in the Gandaki river basins.

There are opportunities which the competitiveness of milk subsector that can be built up on untapped high milk production potential. Since, small portion of the total marketable milk reaches the terminal market due to different needs to be addressed for overcoming value chain approach. These supports for the organizational and business management and development gaps among the small- scale milk processing units.

The main theme of the recommendation is that; any interventions in the milk and milk value chain should address the poor and women pastoralists/ producers for livelihood enhancement of these poor.

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ACRONYMS/ABBREVIATIONS

AI	:	Artificial Insemination
AFSP	:	Agriculture and Food Security Project
AGDP	:	Agricultural Gross Domestic Product
APP	:	Agriculture Perspective Plan.
CDCAN	:	Central Dairy Cooperative Association Limited Nepal
CSA	:	Central Statistics Authority
DDC	:	Dairy Development Corporation
DDE	:	Dairy Development Enterprise
DMPCUs	:	District Milk Processing Chilling Units
DoA	:	Department of Agriculture
FAO	:	Food and Agricultural Organization
FGD	:	Focus Group Discussion
FMD	:	Foot and Mouth Disease
GAP	:	Good Agricultural Practices
GDP	:	Gross Domestic Product
GMP	:	Good Manufacturing Practices
ICT	:	Information Communication Technology
IMF	:	International Monitoring Fund.
ILRI	:	International Liberation of Research Institute
KM	:	Kilo Meter
MASL	:	Meter above Sea Level
MOA	:	Ministry of Agriculture
MoAD	:	Ministry of Agriculture Development
MPCs	:	Milk Producers' Cooperatives
NDDB	:	National Dairy Development Board.
NGO	:	Non Governmental Organization
PCDP	:	Pastoral Commission Development Project
RREADP	:	Regional Resilience Enhancement against Drought Project
SGM	:	Specific Gross Margin
SMP	:	Skim milk Powder
SLOT	:	Strength Limitation, Opportunity and Threat
TLU	:	Tropical Livestock Unit
TOR	:	Terms of Reference