Economic Impact of COVID-19 on Goat Production System in Chattogram District in Bangladesh



A production report submitted by

Syeda Subrina Akhter Roll: 16/29 Intern Id: 26 Reg. No: 01643 Session: 2015-16

This production report is submitted for Partial fulfillment of the Degree of Doctor of Veterinary Medicine (DVM)

Chattogram Veterinary and Animal Sciences University

Khulshi, Chittagong-4202

Economic Impact of COVID-19 on Goat Production System in Chattogram District in Bangladesh



A production report submitted as per approved style and contents

Signature of Author Syeda Subrina Akhter Roll No: 16/29 Reg. No: 01643 Intern ID: 26 Session: 2015-16

Signature of Supervisor Meherunnesa Chowdhury Sumy Professor Dept. of Agricultural Economics and Social Sciences Faculty of Veterinary Medicine Chattogram Veterinary and Animal Sciences University, Khulshi, Chittagong-4225

Table of contents

ContentsPage
Table of contentsI-II
List of tablesIII
AcknowledgementIV
AbstractV
Chapter 1: Introduction
1.1 Problem statement1-2
1.2 Objectives of the study3
Chapter 2: Materials and Methods
2.1 Survey design and conduct4
2.1.1 Selection of the study area4
2.1.2 Study period4
2.1.3 Sources of data4
2.1.4 Data Collection Period5
2.1.5 Preparation of questionnaire4-5
2.1.6 Data collection6-7
2.2 Analytical technique7
2.2.1 Determination of profitability7
2.2.1.1 Return estimation7-8
2.2.2 Paired sample test8-9
2.2.3 Problem index9
Chapter 3: Result and Discussion
3.1 Socio-economics characteristics of goat farm owners10-11

3.2 General information of goat farmers	12
3.3 Feeding information of goat farms	13-14
3.4 Morbidity and mortality of the farms	14
3.5 Cost and return of per goat per month in the study are	ea15-16
3.6 Monthly profitability of per goat per farm	16
Discussion	17
Chapter 4: Problem and suggestion	
4.1 Problem faced by goat farmers during covid-19 situation	on18-19
4.2 Suggestion	
Chapter 5: Conclusion	21
Limitation of the study	22
Reference	
Biography	25

LIST OF TABLES

TABLE NO	CONTENTS	PAGE
Table 1	Socio-economic characteristics of goat farm owners	9
Table 2	General information of goat farms	10
Table 3	Feeding information of goat farms before and during covid- 19 pandemic	11
Table 4	Prices of feed purchased by farms before and during covid- 19 pandemic	12
Table 5	Mortality and morbidity rate of the goats in the selected areas before and during covid-19 pandemic	12
Table 6	Cost and return of per goat per month in the study areas	13
Table 7	Monthly profitability of per goat per farm in the study areas	14
Table 8	Paired sample test	15
Table 9	Problem faced by goat farmers during covid-19 situation	18

ACKNOWLEDGEMENT

The author is ever grateful and indebted to the Almighty Allah without whose grace it would have never been possible to pursue this study in this field of science and to complete this production report writing for the Degree of Doctor Of Veterinary Medicine (DVM).

The author would like to express his deep sense of gratitude and thanks to Professor **Dr**. **Goutam Buddha Das,** Vice Chancellor of Chittagong Veterinary and Animal Sciences University.

It is deemed as a proud privilege and extra terrestrial pleasure to express authors ever indebtedness, deepest sense of gratitude, sincere appreciation and profound regards to authors reverend and beloved teacher and Supervisor **Meherunnessa Chowdhury Sumy**, Professor, Department of Agricultural Economics and Social Sciences, Chittagong Veterinary and Animal Sciences University for her scholastic guidance, uncompromising principles, sympathetic supervision, valuable advice, constant inspiration, affectionate feeling, radical investigation and constructive criticism in all phases of this study and preparing the manuscript also.

The author would like to express his deep sense of gratitude and heartfelt appreciation to Professor **Dr. Mohammad Alamgir Hossain**, Dean of Chittagong Veterinary and Animal Sciences University

The author highly expresses his sincere gratitude and gratefulness to the Director of external affairs, **Dr. A.K.M Saifuddin**, Professor, Department of Physiology, Biochemistry and Pharmacology, Chittagong Veterinary And Animal Sciences University., for his constant inspiration, cordial co-operation, valuable suggestion for completion of the report work.

The author is an ever indebted to her father, mother, brothers, sisters, maternal uncles, grandmother, grand-father and other relatives for their sacrifices, blessing and encouragement to get her in this position.

The Author

ABSTRACT

The COVID-19 pandemic and the associated lockdown for a long period have created a significant adverse impact on different sectors, including that of the agriculture and other allied sub-sectors in Bangladesh. The present study aimed to depict the impact of this pandemic on goat production system in the country, which has been one of the fastest-growing sectors in recent years. Data were collected randomly from 30 goat farms from Khulshi, Pahartoli, Ak Khan areas of Chattogram metropolitan area., Bangladesh.

The study reveals that majority (53.33%) of the farmers were middle aged and 66.67% had no training about goat farming. About experiencing of goat farming, 73.33% farmers fell into the category of having 3 to 6 years of experiences and 26.67% of the famers had more than 6 years of farming experience. The data also shows that the prices of feed both roughages and concentrates increased during covid-19. Total cost per goat per month escalated during pandemic to taka 2266.8 from taka 1822.26 while total return reduced to taka 8145.16 from taka 9356.18. Benefit Cost Ratio (BCR) on cash cost basis was 6.03 before covid-19 and 4.34 during covid-19. BCR on full cost basis was 5.13 before covid-19 and 3.59 during covid-19.

Paired sample test indicates that there is a significant relationship between the monthly income from goat production before and during covid-19 in the selected farms. The mean value of monthly income between 2020 and 2019 is -1251.38, indication of a highly significant (P<0.001) negative impact on profitability and a lower income during the covid-19 scenario.

Regarding problems in goat rearing, data indicated that among the 11 major problems, 'high feed cost due to covid-19' ranked first with 106 problem index (PI). Other major problems are lack of credit facility, Wholesale price fall due to pandemic, Decreased market demand of goat meat, Insufficient and inadequate veterinary services, Lack of government assistance, etc. The government should introduce evidence-based strategies with the implementation on small scale goat farming and livestock development projects that could cover the emerging needs of the future.

Key words: COVID-19, goat, impact, production, profitability, problem index.