IMPACT OF SERICULTURE ENTERPRISE ON ITS BENEFICIARIES

JOSHI RACHANA RENUKADAS

B.Sc. (Agriculture)

MASTER OF SCIENCE

IN

AGRICULTURE

(EXTENSION EDUCATION)

DEPARTMENT OF EXTENSION EDUCATION

COLLEGE OF AGRICULTURE, PARBHANI

VASANTRAO NAIK MARATHWADA KRISHI VIDYAPEETH

PARBHANI- 431 402 (M.S.) INDIA

2021

IMPACT OF SERICULTURE ENTERPRISE ON ITS BENEFICIARIES

BY

JOSHI RACHANA RENUKADAS

B.Sc. (Agriculture)

A thesis submitted to

Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani

in partial fulfillment of the requirement for the degree of

MASTER OF SCIENCE

IN

AGRICULTURE

(EXTENSION EDUCATION)

DEPARTMENT OF EXTENSION EDUCATION

COLLEGE OF AGRICULTURE, PARBHANI

VASANTRAO NAIK MARATHWADA KRISHI VIDYAPEETH

PARBHANI- 431 402 (M.S.) INDIA

2021

DECLARATION BY THE CANDIDATE

I hereby declare that the thesis entitled, "**IMPACT OF SERICULTURE ENTERPRISE ON ITS BENEFICIARIES**", submitted by me is based on the actual work carried out by me under the guidance and supervision of **PRAVIN SHARADCHANDRA KAPSE**. The extent of information derived from the existing literature have been duly cited and referenced. The existing research work or its any part is not submitted anywhere else for the award of any degree or diploma.

I also hereby declare that no sentence, equation, diagram, table, paragraph or section has been copied verbatim from previous work unless it is cited and duly referenced. There is no plagiarism; the work presented is original and own work of the researcher. No ideas, process, results or words of other have been presented as researcher's own work.

Place: Parbhani
Date:30/7 /2021

Rachana.
(Joshi Rachana Renukadas)
Reg. No: 2019A/90M

CERTIFICATE – I

This is to certify that the thesis entitled, **"IMPACT OF SERICULTURE ENTERPRISE ON ITS BENEFICIARIES"** submitted by **JOSHI RACHANA RENUKADAS, Reg. No. 2019A/90M** in partial fulfillment of the requirements for the award of the degree of **MASTER OF SCIENCE (Agriculture)** in the subject of **EXTENSION EDUCATION** submitted to the Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani is a record of bonafide research work carried out by him/her under my guidance and supervision. The thesis or its any part has not previously formed the basis for the award of any degree, diploma or other similar title.

Place: Parbhani

Date:30/7 /2021

(Pravin Sharadchandra Kapse)

Research Guide

CERTIFICATE – II

This is to certify that the thesis entitled, **"IMPACT OF SERICULTURE ENTERPRISE ON ITS BENEFICIARIES"** submitted by **JOSHI RACHANA RENUKADAS, Reg. No. 2019A/90M** in partial fulfillment of the requirements for the award of the degree of **MASTER OF SCIENCE (Agriculture)** in the subject of **EXTENSION EDUCATION** to the Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani has been approved by the Student's Advisory Committee after viva voce examination of the student in collaboration with the External Examiner.

(External Examiner)
D. D. Surakar

(P.S. Kapse)
Research Guide & Chairman
Advisory Committee

(S.R. Jakkawad)
Member

(Irfana Siddiqui)
Member

(S.S. More)
Member

Associate Dean (PG)

PLAGIARISM CLEARANCE CERTIFICATE

This is to certify that thesis entitled, **"IMPACT OF SERICULTURE ENTERPRISE ON ITS BENEFICIARIES"** submitted by **JOSHI RACHANA RENUKADAS, Reg. No. 2019A/90M** has been properly examined by Ouriginal: Anti plagiarism Software. The percentage of similarities found in the thesis is **4 %.**

No sentence, equation, diagram, table, paragraph or section has been copied verbatim from previous work unless it is duly cited and referenced. The work presented is original and own work of the researcher (i.e. there is no plagiarism). No ideas, process, result or words of other have been presented as researcher's own work.

(**P. S. Kapse**)
Research Guide

Curiginal

Document Information

Analyzed document	JOSHI_RACHANA_RENUKADAS_M.Sc..pdf (D111170084)
Submitted	8/11/2021 2:27:00 PM
Submitted by	Dr Kapse P S
Submitter email	pravinkapse2016@gmail.com
Similarity	4%
Analysis address	pravinkapse2016.vnmkv@analysis.urkund.com

Sources included in the report

SA	**VNM Krishi Vidyapeeth / amar gadhave msc.pdf.pdf** Document amar gadhave msc.pdf.pdf (D78908035) Submitted by: sgpuri2@gmail.com Receiver: sgpuri.vnmkv@analysis.urkund.com	1
SA	**VNM Krishi Vidyapeeth / Lovely Narzary 2019A92M.pdf** Document Lovely Narzary 2019A92M.pdf (D111160873) Submitted by: deshmukhpr36@rediffmail.com Receiver: deshmukhpr36.vnmkv@analysis.urkund.com	1
SA	**VNM Krishi Vidyapeeth / Ramadevi Nair Ph.D. 2020.pdf** Document Ramadevi Nair Ph.D. 2020.pdf (D86559777) Submitted by: rpk.mkv@gmail.com Receiver: rpk.mkv.vnmkv@analysis.urkund.com	8
W	URL: http://www.bepls.com/beplsmarch2018/22.pdf Fetched: 12/23/2020 6:17:08 AM	1
SA	**VNM Krishi Vidyapeeth / Bhosale G.B. MSc. thesis 2021.docx** Document Bhosale G.B. MSc. thesis 2021.docx (D110507543) Submitted by: rpk.mkv@gmail.com Receiver: rpk.mkv.vnmkv@analysis.urkund.com	2
W	URL: https://www.ijcmas.com/special/6/G.%20K.%20Pise,%20et%20al.pdf Fetched: 12/10/2020 5:02:18 PM	1
W	URL: https://www.entomoljournal.com/archives/2019/vol7issue3/PartW/7-3-141-214.pdf Fetched: 12/16/2020 5:18:35 AM	1
SA	**VNM Krishi Vidyapeeth / Siddharth Kharatmal M.Sc. (Agri.)pdf..pdf** Document Siddharth Kharatmal M.Sc. (Agri.)pdf..pdf (D111168745) Submitted by: nddeshmukhagri@gmail.com Receiver: nddeshmukhagri.vnmkv@analysis.urkund.com	1
SA	**VNM Krishi Vidyapeeth / Rutuja Thesis.pdf** Document Rutuja Thesis.pdf (D111027909) Submitted by: kiranthoratmpkv@gmail.com Receiver: kiranthoratmpkv.vnmkv@analysis.urkund.com	1

ACKNOWLEDGEMENT

A boring work is made light and smooth with the blessings of God. I wish to thank God, who has made impossible work into a fact. That's why I'm expressing my gratitude as the fruit of my work.

I would like to express my deepest gratitude to all the people whose assistance was a milestone in the completion of the thesis. During the thesis work, I went through bad situations and got exhausted but inspiration and guidance given by my parents, teachers and friends have helped me to complete this work. As I was at the end of the thesis writing, many of the memories rushed into mind which was full of gratitude to those who encouraged and helped me at each stage of research work. Words might be probably insufficient to express my gratitude but words are the only medium to convey my feelings.

I have great pleasure in expressing my gratitude towards my Research Guide and Chairman of Advisory Committee **Dr. P. S. Kapse**, Associate Professor, College of Agriculture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani for his guidance, motivation and punctuality. I have this opportunity to convey my feelings of gratitude to him for suggesting the research topic, valuable guidance, inspiration, versatile advice and great efforts in completion of thesis.

I am deeply indebted to my committee members **Dr. S. R. Jakkawad**, Associate Professor, Department of Extension Education, VNMKV, Parbhani. **Dr. Irfana Siddiqui**, Assistant Professor, Department of Textiles and Apparel Designing, College of Community Science, VNMKV, Parbhani, **Dr. S. S. More**, Associate Professor, Department of Agricultural Economics, College of Agriculture, VNMKV, Parbhani, **Dr. R. D. Ahire**, Associate Dean and Principal, College of Agriculture, Badnapur, **Dr. R. P. Kadam**, Professor, Department of Extension Education, **Dr. J. V. Ekale**, Associate professor, Department of Extension Education, **Dr. P. R. Deshmukh**, Associate Professor, Department of Extension Education, **Dr. M. V. Kulkarni**, Department of Extension Education, **Dr. S. G. Puri**, Department of Extension Education, **Dr. R. C. Sawant**, Department of Extension Education for their support, cooperation and valuable guidance during the research work.

I am indebted to **Dr. A. S. Dhawan**, Honourable Vice-chancellor, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, **Dr. D. N. Gokhale**, Director of Instruction and Dean and Associate Dean (PG), College of Agriculture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani and **Dr. Syed Ismail**, Associate Dean and Principal, College of Agriculture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani for providing necessary facilities during entire study.

I shall fail in my duties if I do not record sincere thanks to sericulture beneficiaries from Nanded district for providing me the data required for present investigations. I am deeply obliged to all the authors and research scholars whose literatures have been cited.

Parents taught us to see the dreams to stand with our feet on ground. My beloved father **Shri. Renukadas Bapuguru Joshi** has enlightened me to believe, in the beauty of dreams, mother **Sau. Aruna Renukadas Joshi** for her tremendous source of inspiration throughout my life, their blessings, love and affection has brought the cherished dream to reality. I would like to thanks to my sister **Ragini** and brother **Avishkar** for their moral support. I also like to express my gratitude to **Mr. Sanjay Pagde** and **Mrs. Shanta Pagde** for their huge support and cooperation during my entire study.

I also wish to express my profound sense of gratitude to my seniors **Dr. Savita Dhoke, Dr. Ramadevi Nair, Shital Di, Shrutika Di, Ajit Sir, Amar Sir**. A friend is our biggest assets who make our life colourful and cheerful. So, I would like to express my warm thanks to my classmates **Lovely, Snehal, Bhagyashree, Neha, Komal, Sanghavi, Pralay, Govind, Akshay, Lakshman, Sanket and Shantanu** for their timely and necessary suggestions and help during conduct of the research study.

The words are inadequate to convey the depth of my heartfelt thanks. Last but not the least, my warm acknowledge to the God and well-wishers those who helped me during my research work whose names I have forgotten to mention here due to my short comings.

Place : Parbhani

Rachana.

Date : 30/ 7 /2021 **(Joshi Rachana Renukadas)**

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

ABBREVIATIONS

%	-	Per cent
F	-	Frequency
&	-	And
i.e.	-	That is
et al.	-	and other
Fig.	-	Figure
etc	-	Et cetera
ha	-	Hectare
GDP	-	Gross Domestic Product
MT	-	Million Tonnes
SGSY	-	Swarnajayanti Gram Swarozgar Yojana
MGNREGA	-	Mahatma Gandhi National Rural Employment Guarantee Act

THESIS ABSTRACT

THESIS ABSTRACT

1.	Title of thesis	: Impact of Sericulture Enterprise on Its Beneficiaries
2.	Full name of the candidate	: Joshi Rachana Renukadas
3.	Full name of Research Guide	: Kapse Pravin Sharadchandra
4.	Department	: Extension Education
5.	College/University	: College of Agriculture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani.
6.	Degree to be awarded	: Master of Science (Agriculture)

ABSTRACT

Sericulture is an important labour intensive agro-based industry, which provides attractive incomes to small and marginal farmers in particular. It enhances the living standards of rural people by providing sufficient employment and income opportunities.

The present study entitled “Impact of Sericulture Enterprise on Its Beneficiaries” was conducted purposively in Nanded district of Marathwada region. For this, two talukas namely Nanded and Loha were selected purposively. From each taluka two villages i.e. total four villages were selected. From each village 10 beneficiaries and 10 non-beneficiaries, total 80 respondents were selected purposively. Ex-post-facto research design was used for the present study. Data were collected with the help of interview schedule. The statistical tools used for the present study were frequency, percentage, mean, standard deviation, coefficient of correlation and Z test.

The objectives of study were, to study profile of the beneficiaries, to study impact of the sericulture enterprise on its beneficiaries, to delineate relationship between profile of beneficiaries with impact of sericulture enterprise and to find out the problems faced by the beneficiaries in their enterprise and to invite their suggestions.

From the above study it can be concluded that the majority of beneficiaries and non-beneficiaries belonged to medium categories of age (65.00 % and 60.00 %) with

medium level of education (45.00 % and 32.00 %). Majority of beneficiaries and non-beneficiaries had nuclear type of family (60.00 % and 55.00 %), medium size of family (55.00 % and 50.00 %), annual income (72.50 % and 87.50 %), farming experience (65.00 % and 60.00 %) and small land holding (70.00 % and 70.00 %). Most of beneficiaries and non-beneficiaries had medium social participation (62.50 % and 72.50 %), extension contact (55.00 % and 67.50 %), risk orientation (67.50 % and 60.00 %) and number of training (67.50 % and 55.00 %).

Majority of beneficiaries and non-beneficiaries were belonged to medium categories of educational change (42.50 % and 60.00 %), change in annual income (72.50 % and 87.50 %), change in saving pattern (70.00 % and 77.50 %), change in employment generation (75.00% and 67.50 %) , change in material possession (52.50 % and 60.00 %) and overall impact of beneficiaries and non-beneficiaries (67.50 % and 87.50 %) respectively.

With respect to independent and dependent variables, age had positive non-significant relationship with impact, education had negative non-significant relationship, and land holding had positive significant relationship. While type of family, size of family, annual income, experience in sericulture, social participation, extension contact, risk orientation and number of training had positive highly significant relationship. The impact with change in education, change in annual income, change in saving pattern was highly significant while change in employment generation and change in material possession was non-significant. The overall impact was highly significant at 0.01 level of probability.

Majority of beneficiaries (87.50 %) had constraints regarding decrease in cocoon production and majority of beneficiaries (100 %) had suggestion to establish thread manufacturing center at district level.

(**Keywords:** Sericulture, impact, beneficiaries, employment generation)

CHAPTER – I

INTRODUCTION

CHAPTER – I

INTRODUCTION

Agriculture can trigger job-led economic growth, provided it becomes intellectually satisfying and economically rewarding.

-M. S. Swaminathan

Agriculture is not only an occupation for people but also a way of life. Agriculture plays a vital role in Indian economy and considered as **backbone of Indian economy**. Over 60 per cent rural household depends on agriculture. Agriculture is an important sector as it contributes 18 per cent to the total GDP and provides employment to over 60 per cent population. For decades, agriculture has been associated with production of essential food crops. At present, agriculture above and beyond farming includes allied sectors like Sericulture, Forestry, Dairy, Poultry and Mushroom etc. It provides employment to very large population in addition to providing raw material (Anonymous, 2021).

1.1 Introduction to Sericulture

India encompasses an upscale and sophisticated history in silk production and silk trade dates back to fifteenth centuary. India is the second largest producer of silk within the globe after China. The word Sericulture is derived from Greek word '*Sericos'* means *'*Silk' and English word *'Culture'* means 'Rearing' . Silk is the fibrous protein of animal organ produced by silkworm for spinning a cocoon. Silk consists of two proteins i.e. Fibroin (structural centre of silk) and Sericin (sticky material surrounding it). Since the independence, India has witnessed manifold increase in area and production of Mulberry Silk due to improved varieties of Mulberry and improved breeds of silkworm. Sericulture is both an art and science of rearing silkworm for production of cocoons which is raw material for silk production. Sericulture is an agro-based industry which involves cultivation of host plants and rearing of silkworms for the production of cocoons to produce raw silk. It stands for livelihood opportunity for millions owing to high employment oriented, low capital intensive and remunerative nature of its production. India's ancient and culture bound domestic market and tremendous diversity of silk clothes that replicate geographic specificity have helped the country to attain variety one position in silk business.

Sericulture is the one industry which gives regular income or employment to the farmer. In this industry, the small farmers, middle farmers, big farmers or youth entrepreneur can get proper profit. There is lot of difference between the increasing need of silk and current production that's why there is tremendous scope for development of this industry. So, farmers should clearly or kindly take benefits of this industry.

Day-by-day the well-educated youths are getting unemployed. So, they migrate from rural to urban area for getting a job. This industry affirms and provides opportunity to enhance their life. So, there is wide scope for this industry for the betterment of life.

1.2 Importance of Sericulture

Sericulture is an agro-based rural industry with large labour involvement and higher income generation potential. India, the second largest silk producer next to China, has a unique position in the world, being the only country producing all the four commercial silk.

Once the plantation is established, it will continue to yield for 10-12 years with minimum expenditure for maintenance. It is sustainable to small and marginal farmers also. All sericulture activities are rural based and hence prevents migration of villagers from rural to urban areas. Silk being an expensive commodity used mostly by the affluent society, transfer of money from rich to poor is ensured.

Mulberry ensures higher income per unit area than number of agricultural enterprises. In drought conditions, when most of agricultural crops do not survive even after few showers, Mulberry being perennial crop sprouts and yield leaves for rearing silkworms. Sericulture provides self-employment opportunities to the educated unemployed rural youth in varied sectors. Silkworm gives products which are used as human medicines.

As a perennial crop with good foliage and root spread, Mulberry provides green cover and helps for conservation and also, when dried can be used as fuel. Intercropping can also be done with numerous plantations.

1.3 Status of Silk Industry

Silk is known as "Queen of Textiles" the world over. On other hand, it stands for livelihood opportunity for millions, owing to its high employment potential,

low capital requirement and remunerative nature of its production. The very nature of this industry with its rural based on-farm and off-farm activities and enormous employment generation potential has attracted the attention of the planners and policy makers to recognize most appropriate avenues for socio-economic development of largely agrarian economy of India.

Sericulture industry provides employment to approximately 9.18 million persons in rural and semi-urban areas in India. Of these, a sizeable number of workers belong to economically weaker sections of society, including women. India has unique distinction of being only country producing all five known commercial silks namely Mulberry, Tropical Tasar, Oak Tasar, Eri and Muga, of which Muga is produced only in India with its golden yellow glitter is a prerogative of India.

In India among the four varieties of silk produced in 2018-2019, Mulberry accounted for 71.45 per cent (25,345 MT), Tasar 8.4 per cent (2981 MT) , Eri 19.48 per cent (6910 MT) and Muga 0.66 per cent (233 MT) of total raw silk production of 35,468 MT. The quantity of silk produced during 2019-2020 (upto Dec 2019) 2545 MT and its value was 872.47crores. Export earnings during 2019-20 were 1137.44 crores. Raw silk production during 2019-20 for Maharashtra State was 228 MT (Anonymous, 2020).

Sericulture is a labour extensive activity that involve intensive agriculture of Mulberry and careful husbandry of silkworm rearing. About 60 per cent of activities and pre and post cocoon are carried out by women. More than 60 lakh persons are employed as full time workers in production chain, out of which 35 to 40 lakh persons are women (Ramalakshmi, 2007). It is a labour intensive industry, it generate employment 11 per cent of every kg of silk of which more than 6 per cent are women. Empowerment of women through various discipline industry is needed. Thus, involves family demands the designing of human eye and delicate human touch and thus part played by women in sericulture is substantial.

1.4 Scope of study

Agriculture is important not only for the supply of food but also for the provision of raw materials. Apart from the silk there are several other byproducts obtained from sericulture and moriculture activities like herbal medicines, baskets for storage and fuel for domestic purpose, fodder for cattle.

Sericulture provides an opportunity to improve living standards of people in rural areas. The study helps to understand the socio-economic conditions of the sericulture farmers. The efforts were made to know the impact of sericulture enterprise on its beneficiaries and how sericulture is beneficial than the regular farming. The study also finds out the constraints faced by the sericulturists and suggestions given to overcome the constraints faced by them.

1.5 Increasing Graph of Sericulture in State

Most of the lands in Marathwada regions are arable. There is possibility that such kind of land or farming may get affected due to drought and excess rain / flood also. Many traditional crops are taken but allied sectors are not yet stable. In such conditions, since last 5-6 years the sericulture is increasing on large scale in drought prone areas of Marathwada. Sericulture can be done with less water, also there is active participation of family members so, it generates employment to all.

Fiber length of Bivoltine Silk is 1000 m where as cross-breed is 450 m. In the Global market, there is demand for Bivoltine Silk. Karnataka state is the first among states producing silk and it contribute about 50 per cent to the total silk production of country. In our state there is 100 per cent production of Bivoltine Silk from Marathwada region only, it means Marathwada region produces the superior quality silk. The increasing graph of sericulture in Marathwada region is hopeful.

Due to covid-19 pandemic condition, the entrepreneurs from Karnataka is deciding to move their market state nearer to their state i.e. Maharashtra. So, many entrepreneurs are helping the other new entrepreneur to get inputs like eggs, chawki and technical knowledge also. It can be stated that with technical knowledge of processing there might be establishment of large cloth industries.

In our state the reeling units of silk are increasing so, there is development of more markets and rate is also affordable. If we decide to sell the production to Karnataka state there might be many problems like reduction in weight, increases transportation costs etc. If price of 1 kg silk is less than Rs.300/- , state gives Rs. 50/- as subsidy, so that if Karnataka rate is rupees 50-70 per kg, it is beneficial to farmers to sell the production in our state. State gives rupees 150 per kg for automatic reeling and rupees

100 for multiend reeling unit, it automatically benefitted to processing entrepreneurs. So, it helps to increase the income of farmer and employment generation (Agrowon; 2020).

1.6 Need of the study

As it is known, sericulture needs low investment and it returns more profit. Sericulture includes on farm as well as off-farm activities. So, it provides an opportunity for employment. That's why; there is assurance that it enhances the socio-economic life of the sericulturists than the regular farming. So, it is needed to know the difference between socio-economic life of sericulturists (beneficiaries) and non-sericulturists (non-beneficiaries), by analyzing the impact of this enterprise on its beneficiaries.

1.7 Limitations of the study

Due to limitations of time and other resources, the study is conducted in limited area of Nanded district. So, one of the limitations for the study is lack of adequate time and other facilities. Study is based on the responses given by the respondents. Though, utmost efforts are made to collect the accurate data.

1.8 Objectives of the study

1. To study profile of the beneficiaries.
2. To study impact of the sericulture enterprise on its beneficiaries.
3. To delineate relationship between profile of beneficiaries with impact of sericulture enterprise.
4. To find out the problems faced by the beneficiaries in their enterprise and to invite their suggestions.

1.9 Organization of the thesis

The present study is compiled under five chapters. The first chapter deals with introduction, including objectives, scope, need and limitations of study. The second chapter delivers the review of literature which gives the reviews of important studies related to the present study. The third chapter includes the materials and methods which help to conduct a research work in a right direction. The fourth chapter deals with results and discussion of the present study. The fifth chapter deals with summary and conclusions. At the end of the thesis literature cited, appendices and curriculum vitae are given.

CHAPTER – II

REVIEW OF LITERATURE

CHAPTER – II

REVIEW OF LITERATURE

The review of literature is a written overview of major writings and other sources on a selected topic. Review of literature helps the researcher to give right direction to the research. Its purpose is that what knowledge others have found and to contribute something new information to the existing knowledge. So, the study entitled "Impact of Sericulture Enterprise on Its Beneficiaries" is conducted and reviews collected are arranged according to the following objectives;

1. To study profile of the beneficiaries.
2. To study impact of the sericulture enterprise on its beneficiaries.
3. To delineate relationship between profile of beneficiaries with impact of sericulture enterprise.
4. To find out the problems faced by the beneficiaries in their enterprise and to invite their suggestions.

2.1 To study profile of the sericulturists

2.1.1 Age

Bhagyalakshmi et al. (2003) revealed that near about 66.60 per cent respondents were from middle age group, 22.22 per cent were from young age group and remaining 11.11 per cent were from old age group.

Patil (2010) observed that 60.00 per cent respondents were from middle age group, followed by young age group i.e. 22.23 per cent and respondents from old age group were 17.77 per cent.

Todmal et al. (2013) concluded that majority of respondents were from middle age group.

Yadav (2013) found that 72.50 per cent majority of the respondents belonged to middle age group, followed by old age group i.e. 14.16 per cent and young age group were 13.33 per cent.

Sharma and Kumar (2016) reported that from age group 26-35 years 50.00 per cent respondents were there. From age group of 36-45 years, 26.67 per cent respondents were there. 11.67 per cent respondents from 18-25 years age group. 7.5 per

cent respondents were from 46-55 years age group and 4.17 per cent respondents from above 55 years age group.

Hadimani et al. (2017) indicated that 56.00 per cent of the respondents were under middle age group, 22.00 per cent were from young age group and 21.00 per cent were from old age group.

Muthulakshmi and Rajkumar (2018) found that majority of the respondents i.e. 68.75 per cent comes under middle age group and then followed by old age group and young age group i.e. 17.50 per cent and 13.75 per cent respectively.

Jakkawad et al. (2019) in the study revealed that majority i.e. 66.25 per cent of respondents were of young age group (upto 35 years), followed by middle age group i.e. 26.25 per cent (upto 36-55 years) and 7.50 per cent were in old age group (above 56 years).

2.1.2 Education

Mankar et al. (2013) reported that about 32.50 per cent of National Horticulture Mission beneficiaries were educated upto high school, 28.33 per cent upto middle school, 19.17 per cent upto college, 18.33 per cent to primary school and 1.67 per cent were illiterate.

Todmal et al. (2013) concluded that respondents were educated upto high-school to junior college i.e. 8^{th} to 12^{th} standard.

Yadav (2013) reported that 50.00 per cent of the respondents were having primary education, followed by illiterate i.e. 30.00 per cent and high school 20.00 per cent.

Ahire and Kapse (2017) revealed that 33.33 per cent of the respondents were having education upto secondary level, 21.67 per cent of them having education upto higher secondary and college level. Whereas 20.00 per cent of them were having education upto primary school level and only 3.33 per cent were illiterate.

Chapke et al. (2015) revealed that respondents having education upto post graduation were 65.00 per cent and respondents having education upto graduation were 35.00 per cent.

Sharma and Kumar (2016) found that respondents educated upto senior secondary were 70.83 per cent, 10.00 per cent respondents were educated upto primary,

respondents who are literate having no formal education were 7.5 per cent, 5.83 per cent respondents were educated upto diploma, 4.17 per cent and 1.67 per cent respondents were illiterate and educated upto degree respectively.

Hadimani et al. (2017) indicated that the respondents having high school education were 27.00 per cent, followed by 25.00 per cent respondents having middle school and 20.00 per cent of them were illiterate, very less per cent of respondents were educated upto primary school i.e. 12.00 per cent and only 7 per cent of them were having education upto graduation.

Muthulakshmi and Rajkumar (2018) found that the highest per cent i.e. 28.28 per cent of respondents had passed higher secondary school level education, 25.00 per cent had passed secondary school level education, 16.30 per cent passed graduate level, 12.50 per cent were passed by upper primary level of education, 10.00 per cent passed by lower primary, literate but below primary level of education were 5.00 per cent and illiterate were 2.50 per cent.

Chavhan (2019) revealed that 32.92 per cent beneficiaries were educated upto high school level, 22.50 per cent were educated upto higher secondary level, 18.34 per cent were educated upto middle school level, 7.50 per cent were educated upto primary school level, 3.34 per cent upto college level and 6.67 per cent beneficiaries were illiterate.

Jakkawad et al.(2019) conclude that the respondents educated upto college level were 45.00 per cent, respondents educated upto secondary school were 16.25 per cent and 8.75 per cent respondents were illiterate and respondents educated upto primary level of education were 6.25 per cent.

2.1.3 Family type

Badodiya et al. (2012) revealed that 69.33 per cent of the respondents were having nuclear family and 30.67 per cent of respondents were having joint family.

Todmal et al. (2013) conclude from the study that majority of the respondents were having joint family.

Chauhan et al. (2015) indicated that 85.0 per cent respondents having joint family were 85.00 per cent and respondents having nuclear family were 15.00 per cent.

Chauhan and Chouhan (2014) reported that about 56.00 per cent of respondents were from joint family dominated in the area as compared to 44.00 per cent of the respondents were from nucleus family.

Sharma and Kumar (2016) from study revealed that 73.33 per cent of respondents having joint family and 26.6 per cent of respondents having nuclear family.

Jadhav (2018) indicated that 72.50 per cent of victims were from joint family and 27.50 per cent of victims were from nuclear family.

Raut (2018) conclude that 72.50 per cent of the beneficiaries were from nuclear family while 27.50 per cent of beneficiaries were from joint family.

2.1.4 Family size

Badodiya et al. (2012) revealed from the study that 55.83 per cent of respondents were having medium size of family, while 26.67 and 17.50 per cent respondents having small and big family size respectively.

Kale (2012) seen that majority of respondents i.e. 55.00 per cent beneficiaries of SGSY and 45.00 per cent of non-beneficiaries of SGSY having medium family size and 23.33 per cent of beneficiaries and 13.33 per cent of non-beneficiaries of SGSY having small family and remaining 21.67 per cent of beneficiaries and 41.67 per cent of non-beneficiaries having large family size.

Todmal (2012) conclude from the study that majority of the respondents were having medium size of family i.e. 6-10 members.

Yadav (2013) indicated that most of the respondents i.e. 45.00 per cent were from large family, and then followed by respondents having medium family size i.e. 44.16 per cent and respondents having small family size were 10.84 per cent.

Adsul (2016) stated that majority of NHM beneficiaries were 53.34 per cent belong to medium family while 41.66 per cent belong to big family and 5.00 per cent belong to small family.

Chavhan (2019) conclude that 86.67 per cent of respondents having medium family size, 12.50 per cent having big family while 0.83 per cent having small family size.

Raju et al. (2019) revealed that majority of respondents having medium family size i.e. 87.50 per cent, while big farmers having both medium and big family size

47.00 per cent and family size was less with medium i.e. 5.49 per cent, big 4.76 per cent and big family size was found with only 1 farmer under Small farmers category i.e. 12.50 per cent.

2.1.5 Annual income

Mankar et al.(2013) revealed that majority of the respondents i.e. 55.83 per cent of NHM beneficiaries having annual income between Rs.1,00,001/- to 2,00,000/- followed by 25.83 per cent of NHM beneficiaries having above Rs. 2,00,000/- while 18.34 per cent of beneficiaries having income upto Rs. 1,00,000/-

Todmal (2012) conclude from the study that majority of the respondents having medium annual income between Rs.23, 529/- to Rs. 1, 65,052/- and income from sericulture is between Rs. 19,158 to Rs.1, 45,556 /-

Chauhan and Chouhan (2014) seen that overall average income generated from sericulture by the respondents was Rs. 3581 i.e. 2.07 per cent of total and overall from all sources was Rs.1, 73, 399/-

Chapke et al.(2015) indicated that majority of participants having high annual income above Rs. 3,00,000 were 55.00 per cent while 35.00 per cent participants having medium annual income Rs. 2,00,001/- to 3,00,000/- while 10.00 per cent of participants having below Rs. 2,00,00/- annual income.

Adsul (2016) stated that 55.00 per cent respondents having low annual income while 25.00 per cent and 20.00 per cent of respondents having medium and high annual income respectively.

Hadimani et al. (2017) indicated that 50 per cent of the respondents having medium annual income group i.e. Rs.1.37-3.50 lakh, followed by 34.17 per cent of respondents were having low annual income group i.e. less than Rs.1.37 lakh and 15.83 per cent of respondents having high annual income group i.e. more than Rs. 3.50 lakh.

Shevale (2017) stated that majority of respondents having medium annual income were 62.23 per cent, followed by respondents having high annual income level i.e. 28.88 per cent and respondents having low annual income were 8.89 per cent.

Chavhan (2019) conclude that respondents having medium annual income were 89.58 per cent while respondents having high annual income were 10.42 per cent.

Jakkawad et al.(2019) conclude that more than half of sericulturists i.e. 65.00 per cent were having medium annual income i.e. Rs. 41,501/- to Rs. 1,61,000/- , followed by sericulturists having high annual income above Rs. 1,61,001/- (21.25 %) and sericulturists having low income upto Rs.41,500/- (13.75 %).

2.1.6 Experience in farming

Chauhan (2013) conclude that majority of sericulture farmers having experience of 6-10 years were 54.00 per cent, 42.00 per cent of sericulture farmers having 11-15 years of experience, 14.40 per cent of sericulture farmers having 16-20 years of experience, 24.00 per cent of sericulture farmers having more than 20 years of experience in sericulture.

Mankar et al. (2013) reported that respondents having 11-20 years farming experience were 38.00 per cent while respondents having upto 10 years of farming experience were 30.00 per cent.

Todmal (2012) conclude that majority of the respondents i.e. 53.75 per cent were having medium experience in sericulture of 5-6 years, 43.75 per cent of respondents having low experience of 3-4 years while 2.50 per cent of respondents were having experience of above 7 years.

Yadav (2013) revealed that 42.50 per cent of the respondents were from middle category having experience of 10-20 years, followed by 40.83 per cent of respondents were from high category having experience of more than 20 years, while 16.66 per cent of respondents were from young category having experience of less than 10 years.

Hadimani et al. (2017) indicated that majority of respondents having medium experience of 4-8 years were 54.00 per cent. While respondents having low experience of less than 4 years were 26.00 per cent and respondents having high experience of farming above 8 years were 20.00 per cent.

Supe (2017) stated that near about 75.00 per cent beneficiary having experience of medium level and beneficiary having low level of experience were 12.50 per cent while 12.50 per cent of beneficiary having high level of farming experience.

Jakkawad et al. (2019) conclude that respondents in medium category i.e. 1-3 years experience were 56.25 per cent and respondents in high category i.e. above 3

years were 27.50 per cent while respondents in low experience category i.e. upto 1 year were 16.25 per cent.

2.1.7 Land holding

Mankar et al. (2013) reported that NHM beneficiaries having semi-medium size of land holding were 37.50 per cent, small land holding beneficiaries were 23.33 per cent, beneficiaries having big land holding were 20.00 per cent and 19.17 per cent of beneficiaries were having medium size land holding.

Todmal (2012) conclude that majority of the respondents having small land holding i.e. 1.01-2.00 ha were 50.62 per cent and respondents having marginal land holding i.e. upto 1 ha were 41.25 per cent while 08.13 per cent respondents having land holding was larger.

Yadav (2013) observed that majority of respondents i.e. 61.66 per cent were of marginal farmers having land holding less than 1 ha, followed by respondents included in landless category were 35.00 per cent and only 3.33 per cent of respondents were having land holding of 1-2 ha.

Chauhan and Chouhan (2014) seen that the average size of land holding was 0.52 ha. Whereas average mulberry plant rose per household was 144 with highest of 290 in Naal and lowest of 40 in Dagrahan.

Adsul (2016) stated that majority of NHM beneficiaries having small land were 45.83 per cent, beneficiaries having medium land holding were 26.67 per cent, 15.00 per cent of respondents were having semi-medium land holding ,7.50 per cent of respondents having marginal land holding and remaining 5.00 per cent respondents having big land holding .

Ekhande (2016) indicated that respondents possessing medium land holding were 60.00 per cent, followed by 24.16 per cent respondents were possessing small land holding, whereas only 15.84 per cent of respondents possessing big land holding.

Muthulakshmi and Rajkumar (2018) conclude that majority of the respondents were having marginal land holding i.e. 40.00 per cent, 25.00 per cent of respondents were having semi-medium land holding, 20.00 per cent of respondents were

having small land holding, 10.00 per cent of respondents were having medium land holding and very few i.e. 5.00 per cent of respondents were having large land holding.

Raut (2018) conclude that among total beneficiaries 28.34 per cent of respondents were marginal land holders, 25.84 per cent of respondents were small land holders, 25.00 per cent of respondents were semi-medium land holders while 4.16 per cent respondents were medium land holders and 16.66 per cent respondents were landless.

Jakkawad et al. (2019) conclude that respondents possessed marginal land holding upto 1 ha were 52.50 per cent, followed by respondents having small size land holding i.e. 1.1–2 ha were 28.75 per cent. While respondents possessing medium land holding were 13.75 per cent and only 5.00 per cent of respondents possessing semi-medium land.

2.1.8 Social participation

Nadre (2000) seen that majority of respondents having medium social participation were 43.75 per cent whereas respondents having low participation were 34.72 per cent and respondents having high social participation were 21.53 per cent.

Ahire et al. (2009) found that 55.00 per cent cotton growers were having medium social participation, while 27.50 and 15.00 per cent of respondents having low and high social participation respectively.

Sable (2012) stated that majority of respondents i.e.62.51 per cent were having low level of social participation, followed by respondents having medium level of social participation i.e. 31.06 per cent and only 5.83 per cent of the respondents were having high level of social participation.

Todmal (2012) found that majority of respondents having medium social participation were 73.35 per cent, respondents having low social participation were 15.00 per cent while 11.25 per cent of respondents were having high social participation.

Yadav (2013) indicated that 33.33 per cent of respondents were involved in social and political institutions without holding any post, followed by 30.00 per cent held post in social and political institution while only 7.5 per cent held official post in social and political institutions.

Jakkawad et al. (2019) conclude that majority of the sericulturists were having low social participation i.e. 52.50 per cent, followed by sericulturists having medium social participation were 31.25 per cent and sericulturists having high social participation were 16.25 per cent.

Raju et al. (2019) conclude that 25.00 per cent of the respondents having small level of involvement in milk cooperative society, followed by medium level i.e. 6.60 per cent and big i.e. 19.10 per cent and total category of farmers involved in milk cooperative society were 10.00 per cent.

2.1.9 Extension contact

Hadimani et al. (2017) indicated that more than half of respondents having medium extension contact were 55.00 per cent, followed by 27.00 per cent having low extension contact and 18.00 per cent having high extension contact.

Waghmare et al. (2017) seen that majority i.e.67.00 per cent of respondents having medium level of extension contact, followed by low extension contact i.e.18.00 per cent while 15.00 per cent having high level of extension contact.

Raut (2018) conclude that beneficiaries having medium extension contact were 66.66 per cent while 18.34 per cent and 15.00 per cent of respondents having low and high extension contact respectively.

Chavhan (2019) conclude that respondents having medium extension contact were 59.58 per cent while 20.84 and 19.58 per cent of respondents having high and low extension contact respectively.

Jakkawad et al. (2019) conclude that sericulturists were having high extension contact were 48.75 per cent, followed by medium level i.e. 27.50 per cent and respondents having low extension contact were 23.75 per cent.

Raju et al. (2019) revealed that 43.33 per cent of the sericulturists were having contact with sericulture demonstrator and 13.33 per cent having contact with sericulture extension officers.

2.1.10 Risk orientation

Lad (2013) found that majority i.e. 67.50 per cent of green gram growers were included in medium risk orientation category while 20.00 per cent and 12.50 per

cent of respondents were included in low and high risk orientation categories respectively.

Deshmukh (2014) stated that majority of respondents in medium risk preference were 68.33 per cent, followed by 15.83 per cent and 15.83 per cent of respondents were in low and high risk orientation categories respectively.

Ahire and Kapse (2017) seen that beneficiaries having medium level of risk orientation were 63.34 per cent, followed by 20.00 per cent and 16.66 per cent beneficiaries having high and low level of risk orientation respectively.

Supe (2017) stated that 63.73 per cent of respondents had medium risk orientation, while 25.00 per cent and 11.25 per cent of respondents having high and low risk orientation respectively.

Chikane (2018) found that respondents had medium risk taking ability were 55.00 per cent, followed by 28.34 per cent had to high category of risk taking ability while 16.66 per cent had low risk taking ability.

2.1.11 Number of training

Chole and Fatak (2007) conclude that 61.12 per cent of the respondents had received only 1 training, followed by 27.77 per cent of the respondents who received 2 trainings and only 11.11 per cent of respondents who received 3 trainings.

Wangikar and Kadam (2007) revealed that about 82.41 per cent members of Self Help Group have not attended single training on dairy management practices.

Todmal (2012) found in study that respondents received upto 2 numbers of trainings were 46.25 per cent, respondents not having a single training were 20.63 per cent while respondents receiving more than 3 trainings were 5.00 per cent.

Raju et al. (2019) revealed that majority of the respondents i.e. 40.98 per cent of sericulturists had attended training programme.

2.2 To study impact of the sericulture enterprise on its beneficiaries

2.2.1 Educational change

Badodiya et al. (2011) noticed that education of respondents had significant relation with the impact.

Bhandari (2014) seen that beneficiaries of MANREGA had medium educational changes category were 70.84 per cent, followed by 18.33 per cent of

beneficiaries in low and 10.83 per cent in high educational changes category before implementation of MANREGA. After implementation, more than half i.e. 63.33 per cent of beneficiaries in medium educational changes category followed by low i.e. 24.00 per cent and high i.e. 16.67 per cent in educational changes category.

Mankar et al.(2014) found that large majority of respondents had medium educational changes category were 90.00 per cent, followed by 9.00 per cent were in low and only 1.00 per cent had high educational changes category before adoption of technology. After adoption of technology, majority i.e. 83.00 per cent of respondents had high educational changes category, followed by 9.00 per cent had low and remaining 8.00 per cent had medium educational changes category.

Rathod et al. (2014) stated that education of watershed beneficiaries was non-significantly related with impact.

Ahire and Kapse (2017) found that education of respondents was non-significantly related with impact.

2.2.2 Change in annual income

Wangikar and Kadam (2007) found that SHG's respondents earned Rs. 1001-2000 after joining the SHG were 76.93 per cent while 23.07 per cent respondents earned less than Rs. 1000 before joining SHG.

Argade (2010) conclude that before introduction of MNREGA, 71.11 per cent of beneficiaries were having medium level of annual income, while 17.78 per cent and 11.11 per cent beneficiaries were having high and low income respectively. After introduction to MNREGA, 95.56 per cent of beneficiaries having high annual income while 4.44 per cent having medium level annual income and no one was found in low income category.

Singh and Prakash (2016) indicated that average annual income per household increased to Rs.40226 i.e. 15.00 per cent watershed, farm income from agriculture, fruit and livestock including fisheries increased to Rs. 4478 and 16.53 per cent after implementation of watershed project which indicates that the income from fruits contributed a major share in increasing the income of watershed households.

Bansode et al. (2013) estimated that before participation into SHG majority of SHG members had upto Rs.10, 000 annual income generation group were

95.33 per cent, followed by 4.66 per cent respondents having Rs.10, 001 to 20,000 annual income generation group and no one in Rs. 20,001 to 30,000 and above Rs. 30, 000 annual income generation group. After participation in SHG, large majority i.e. 94.66 per cent of SHG members had Rs.10,001 to 20,000 annual income group and 5.30 per cent upto Rs.10,000 annual income generation group and no one in Rs. 20,001 to 30,000 and above Rs.30,000 annual income generation groups.

Ahire and Kapse (2017) conclude that income level of respondents was changed to a considerable extend. It is also concluded that 88.33 per cent of the respondents were grouped under high change in income level.

Khandave and Suryawanshi (2015) seen that 44.17 per cent of beneficiaries had annual income of Rs. 4, 00,000/- and above. After taking benefits of NHM 65.00 per cent had increased income to Rs. 4, 00,000/- and above.

2.2.3 Change in saving pattern

Patil and Wangikar (2007) conclude that after joining SHG none of the respondents having monthly savings less than Rs.100 and before joining SHG it was 53.08 per cent while 37.69 per cent and 34.60 per cent of them could increase monthly saving in between RS. 301- 500 and Rs. 101- 300 respectively and before no saving and 46.92 per cent.

Bansode et al. (2013) revealed that SHG members save their income at home were 6.00 per cent, 3.30 per cent of members save in the form of jewellery, 2.60 per cent of members save in LIC and no one save their income in fixed deposit, SHG and post before participation into SHG. After participation into SHG 100 per cent of SHG members saves in SHG, 10.00 per cent save at home, while 5.30 per cent save in the form of jewellery, 4.60 per cent save in LIC and no one save their income in fixed deposit and post.

Bhandari (2014) conclude that before implementation of MGNERA, 44.17 per cent of MGNERA beneficiaries had no saving, 35.00 per cent save their income in home and 20.83 per cent in current account. After its implementation, saving pattern changes i.e. 39.17 per cent save income in current account, 27.50 per cent decreases the percentage of no savings, 18.33 per cent save income in saving account, 13.33 per cent save in home and 1.67 per cent saves in insurance.

Mankar et al. (2014) indicated that before adoption of technology, 71.00 per cent of respondents had low monthly saving, 28.00 per cent had medium while 1.00 per cent had high monthly saving. After adoption of technology, 64.00 per cent had low, 15.00 per cent had medium and 11.00 per cent had high monthly saving pattern.

2.2.4 Change in employment generation

Argade (2010) stated that before implementation of NREGA, NREGA beneficiaries had medium employment generation were 55.56 per cent, beneficiaries having high employment generation was 23.33 per cent and 21.11 per cent beneficiaries had low employment generation. After implementation, 70.00 per cent beneficiaries had high employment generation, no one was found under low employment generation.

Mankar et al. (2014) conclude that majority of respondents had low employment generation change before adoption of technology it was 89.00 per cent and after adoption it was more than half of the respondents were 58.00 per cent, followed by 9.00 per cent of them had medium employment generation change before and after adoption i.e. 40.00 per cent. Only 2.00 per cent of respondents had high employment generation change before adoption of technology and remaining 2.00 per cent had high employment generation change after adoption of technology.

Khandave and Suryawanshi (2015) reported that majority of respondents beneficiaries told that their working days increased to 260 days and above through NHM was 94.17 per cent.

2.2.5 Change in material possession

Kale (2012) reported that majority of respondents (78.43 %) was observed in change in livestock possession were 78.43 per cent, followed by respondents change in possession of radio were 33.34 per cent, 31.67 per cent of respondents in possession of cot, 18.33 per cent of respondents change in possession of tape recorder, 16.66 per cent of respondents change in possession of chair, 13.33 per cent respondents in possession of bullock cart and 10.00 per cent respondents change in possession of motor cycle, followed by 8.33 per cent respondents in possession of bicycle and no impact on possession of mobiles in SGSY.

Bhandari (2014) conclude that before implementation of MGNREGA, beneficiaries in medium material possession category were 40.83 per cent, 35.83 per cent

beneficiaries had low and 23.33 per cent beneficiaries had high material possession. After implementation, 66.67 per cent beneficiaries had medium, 17.50 per cent beneficiaries had high and 15.83 per cent had low material possession.

Mankar et al. (2014) reported that more than half of the respondents had low material possession change were 55.00 per cent, followed by 29.00 per cent of respondents had medium and remaining 16.00 per cent of respondents had high material possession change before adoption of technology. After adoption of technology, more than half i.e. 53.00 per cent of the respondents had low material possession change, followed by 28.00 per cent had medium and remaining 19.00 per cent had high material possession change.

2.3 To delineate relationship between profile of sericulturists with impact of sericulture enterprise

2.3.1 Age with impact

Badodiya et al. (2011) found relationship between age and impact of MGNREGA in terms of annual income increased of its beneficiaries was non-significant.

Hiwarkar (2011) revealed that there was non-significant relationship between age of respondents and impact in terms of extent of knowledge.

Babar (2012) reported that relationship between age of respondents and impact of ATIC in terms of adoption was non-significant.

Kale (2012) showed that there was highly positive significant relationship between age of respondents and impact of SGSY on socio-economic condition of beneficiaries.

Bansode et al. (2013) revealed that there was no relation of age with impact of SHG on socio-economic development of their members.

Sharma and Badodiya (2016) conclude that relationship between age of respondents and impact of participation of rural women in agricultural activities was non-significant.

2.3.2 Education with impact

Badodiya et al. (2011) showed that the relationship between trained farmers education and impact of trained farmers about organic farming practices was positively significant.

Hiwarkar (2011) revealed that there was non-significant relationship between education of respondents and impact in terms of extent of knowledge.

Babar (2012) reported that the relationship between education of respondents and impact of ATIC in terms of adoption was non-significant.

Kale (2012) concludes that relationship between education of respondents and impact of SGSY on socio-economic condition of beneficiaries was significant.

Bansode et al. (2013) indicated that there is no any relation of education with impact of SHG on socio-economic development of their members.

Rathod and Pawar (2014) revealed that the relationship between education and socio-economic status of the respondents was positive and highly significant.

Kalsariya et al. (2015) showed that there was significant relationship between education of respondents and impact in terms of gain in knowledge.

Padiyar (2017) found that there is significant relationship between education of beneficiaries and their knowledge level of green gram cultivation practices.

2.3.3 Family type with impact

Tayde (2006) conclude that there was no any relationship between family type with women empowerment.

Thorat (2008) reported that relationship between family type with socio-economic change was positive significant.

Sawandkar (2012) conclude that relationship between family type and impact of beneficiaries was negative.

Todmal (2012) revealed that there was a statistically non-significant correlation between the type of family of the respondents and the impact of sericulture production technologies.

2.3.4 Family size with impact

Kore (2005) reported that family size had positive and significant correlation with overall impact of SHG.

Badodiya et al. (2011) conclude that there was non-significant relationship between family size of trained farmers and impact of trained farmers about organic farming practices.

Tayde (2011) revealed that family size of beneficiaries was positively and significantly related with impact.

Bansode et al. (2013) showed that there is no any relation of family size with impact of SHG on socio-economic development of their members.

Bhandari (2014) reported that relationship between family size of beneficiaries of MGNREGA and socio-economic impact of MGNREGA was significant.

Ingole (2014) indicated that the relationship between family size of beneficiaries and overall impact of farm ponds on beneficiaries was non-significant.

Meenakshi (2014) observed that there was non-significant relationship between family size of labour and socio-economic impact of labour migration of families.

Chavhan (2019) conclude that relationship between family size with mobile based agro advisory services found negatively significant.

2.3.5 Annual income with impact

Badodiya et al. (2011) stated that relationship between annual income of trained farmers and impact of trained farmers about organic farming practices was positive and significant.

Babar (2012) showed that relationship between annual income of respondents and impact of ATIC in terms of adoption was positively significant.

Kale (2012) found that there was a significant relationship between annual income of respondents and impact of SGSY on socio-economic condition of beneficiaries.

Chapke et al. (2015) revealed that there is positively significant relationship between annual income of respondents trainees and impact of training.

Kalsariya et al. (2015) reported that relationship between annual income of respondents and impact in terms of gain in knowledge was non-significant.

Sharma and Badodiya (2016) observed that relationship between annual income of respondents and impact of participation of rural women in agricultural activities was positive and significant.

Chavhan (2019) conclude that relationship between annual income with mobile based agro advisory services was negatively significant.

2.3.6 Experience in farming with impact

Todmal (2012) seen that there was statistically positive and significant correlation between experience in sericulture and the impact of sericulture production technologies.

Bhandari (2014) showed that there was significant relationship between farming experience of beneficiaries of MGNREGA and impact.

Pise (2017) conclude that farming experience of beneficiaries and impact has positive and significant relationship.

Chavhan (2019) indicated that farming experience has negatively significant relationship with mobile based agro advisory services.

2.3.7 Land holding with impact

Ahire (2000) showed that land holding of watershed beneficiaries and impact had significant relationship.

Tayde (2011) showed that there is positive and significant relationship between land holding and impact.

Bhandari (2014) indicated that relationship between land holding of beneficiaries of MGNREGA and socio-economic impact of MGNREGA was a significant.

Ingole (2014) found that relationship between land holding of beneficiaries and overall impact of farm ponds on beneficiaries was non-significant.

Ahire and Kapse (2017) conclude that relationship of land holding with impact was non-significant.

Chaudhari et al. (2015) found that the relationship between land holding of respondents and impact in terms of knowledge regarding improved agricultural technology of wheat crop was non-significant.

Kalsariya et al. (2015) seen that relationship between land holding of respondents and impact in terms of gain in knowledge was non-significant.

2.3.8 Social participation with impact

Tayde (2006) reported that social participation related with women empowerment was positive and significant.

Badodiya et al. (2011) stated that relationship between social participation of trained farmers and impact of trained farmers about organic farming practices was positively significant.

Kale (2012) revealed that social participation and impact has positive and highly significant relationship.

Bhandari (2014) seen that the relationship of social participation with impact was positively significant.

Meenakshi (2014) indicated that relationship between social participation of labour and socio-economic impact of labour migration on the families was positive and highly significant.

Ahire and Kapse (2017) showed that relationship of social participation with impact was positively significant.

Chaudhari et al. (2015) conclude that relationship between social participation of respondents and impact in terms of knowledge regarding improved agricultural technology of Wheat crop was positively significant.

Kalsariya et al. (2015) indicated that there was non-significant relationship between social participation of respondents and impact in terms of gain in knowledge.

2.3.9 Extension contact with impact

Ahire (2000) found that extension contact was positive significantly related with economic change.

Badodiya et al. (2011) conclude that the relationship between extension contact of trained farmers and impact of trained farmers about organic farming practices was positive and significant.

Tayde (2011) reported that there was positive and significant relationship of extension contact with impact.

Parate (2014) found that the relationship between extension contact of beneficiary farmers and overall impact of farm ponds on agricultural development of beneficiary farmers was positive and highly significant.

Ahire and Kapse (2017) observed the non-significant relationship of extension contact with impact.

Chaudhari et al. (2015) reported the non-significant relationship between extension contact of respondents and impact in terms of knowledge regarding improved agricultural technology of wheat crop.

Sharma and Badodiya (2016) observed that there was positive significant relationship between extension contact of respondents and impact of participation of rural women in agricultural activities.

Nargawe (2017) found that there is significant relationship between extension contact and impact of Kisan Mobile Advisory Services (KMAS).

2.3.10 Risk orientation with impact

Maraddi and Moulasab (2015) found that risk orientation had relationship with their knowledge status about ICM based IFS programmes was positively significant.

Nargawe (2017) found that there was significant relationship between risk preference and impact of Kisan Mobile Advisory Services (KMAS).

Pise (2017) revealed that there was significant relationship between risk orientations of beneficiaries of NICRA.

2.3.11 Number of training with impact

Konings and Vanormelingen (2015) found that impact of training intensity on wages is considerably higher.

Muniswamy et al. (2014) from their result it is conclude that training programmes has got a great impact on development of their skills and knowledge level of all training participants.

MaalyMefleh et al. (2015) found that the results showed positive correlation with impact of training on performance of employee at the universities.

Al Karim (2019) reported that impact has the positive and significantly strong relationship between training and development practices.

2.4 To find out problems faced by the sericulturists in their enterprise and to invite their suggestions to overcome the problems

Dhane and Dhane (2004) reported that farmers expressed constraints faced in Mulberry cultivation like high labour wages were 94.00 per cent, inadequate labour were 98.00 per cent, constraints regarding inadequate irrigation facilities were 78.00 per cent, high cost of manure and fertilizer were 73.00 per cent, lack of guidance and

knowledge about Mulberry diseases and pests were 67.00 per cent. Also seen that constraints like high cost of rearing room were 98.00 per cent and high cost of equipments were 93.00 per cent, lack of credit facilities for construction of rearing house were 93.00 per cent, unavailability of subsidies for rearing silkworms were 93.00 per cent, lack of knowledge regarding physical condition of three rearing house were 68.00 per cent, farmers having problem regarding grading of cocoon were 73.00 per cent.

Vasumathi et al. (2004) concluded that the Vijayapura Cocoon market transacted a higher proportion of good quality cocoons while the Kollegal cocoon market transacted a higher proportion of poor quality cocoons. Cocoons price was found to be significantly related to its quality and a bigger lot size give a better price.

Vijayprakash and Dandin (2005) reported that major constraints for adoption of technology were unavailability of the inputs in time were 72.20 per cent. They also reported that fluctuations in cocoon prices were 56.56 per cent, requirement of the separate rearing house were 32.32 per cent and high cost of inputs were 12.00 per cent for the small farmers. Further they observed that constraints faced by the large farmers for non-adoption of bivoltine sericulture technologies include high cost of inputs were 41.67 per cent, fluctuations in cocoon were 38.89 per cent and non-availability of inputs in time were 27.78 per cent.

Patil (2010) reported that important supply constraints faced by respondent were lack of timely availability of labour were 83.33 per cent, timely unavailability of fertilizers in market were 66.70 per cent and lack of availability of sufficient amount of FYM at their disposal were 55.60 per cent. He showed that respondents made suggestions like fertilizers should be provided at subsidized rates were 71.10 per cent, chemical fertilizers and other required chemicals should be made timely available were 73.30 per cent, knowledge should be provided regarding use of biofertilizer and VAM were 83.30 per cent in time credits at lower interest rates should be provided were 66.70 per cent proper guidelines for appropriate use of disinfectant should be provided were 80.00 per cent.

Chauhan and Chouhan (2014) conclude that inadequate financial help for silkworm rearing house, followed by unfavorable climate, non-remunerative price and inadequate mulberry leaves were the problem and constraints in sericulture development

of Jakatkhana study area. To overcome these problems beneficiaries need support in terms of inadequate finance for construction of silkworms rearing house and constant training. If irrigation facilities are provided to such newly allotted land, mulberry plants can perform better because plants become dry and dead in summer season.

Vishakanta and Venkateshappa (2019) reported that sericulturists from Channapattana face various problems regarding mulberry cultivation as well as in rearing of silkworms for cocoon production. Shortage of labour and irrigation water followed by insect/pests menace was identified as major problem in mulberry cultivation. Problem experienced in raising mulberry plantation as well as in silkworms rearing for cocoon production varied across age group as well as education. Shortage of irrigation water can be addressed by sensitizing mulberry growers and shifting from furrow or flood irrigation to drip/sprinkler. Shoot system of mulberry cultivation and silkworms rearing which reduces labour cost by 60.00 per cent. Separate garden for young age rearing ensures a healthy crop as early age rearing is very critical from nutrition and sanitation point of view.

CHAPTER – III

MATERIALS AND METHODS

CHAPTER – III

MATERIALS AND METHODS

The chapter explains what a researcher wishes to do and how to do it, allowing the readers to evaluate the reliability and validity of research. The chapter deals with the description of procedure followed to carry out present investigations. The methodology used for achieving the objective is explained below under the sub-headings;

3.1 Locale of the study

3.2 Method of sampling

3.3 Research design

3.4 Tools of data collection

3.5 Variables and their empirical measurement

3.6 Relationship between dependent and independent variables

3.7 Statistical tools and methods

3.1 Locale of the study

The present study was conducted in Nanded district of Marathwada region.

3.1.1. Salient features of Nanded district

i) Geography

The Nanded district lies between 18°15′ to 19°55′ North latitude and 77°7′ to 78°15′ East longitude. The district has geographical area of 10,528 sq kms. The district is surrounded in North by Yeotmal district, West by Parbhani, Latur and Osmanabad districts, and South by Bidar district of Karnataka State and East by Nizamabad and Adilabad district of Andhra Pradesh.

ii) Soil

Black cotton soil in district is rich in Calcium, Magnesium and Carbonates but poor in Nitrogen, Potassium and Phosphorus. Soil has high moisture and humidity retention capacity. Soil near hilly areas is laterate and mixed with stone.

iii) Climate and rainfall

Climate in Nanded district is extreme with large variations in temperature. Temperature in summer is 43 – 45 °c and in Winter 9 -12 °c. Receives rain from

Southwest monsoon during June – December months. Average rainfall is 1150 mm (Maximum in Kinwat and Minimum in Kandhar).

iv) Cropping pattern

Kharif crops taken are Cotton, Sorghum, Soybean, Black gram and Pigeon pea. Rabi crops taken are Rabi sorghum, Wheat, Gram, Safflower and Sunflower. In Summer Groundnut is taken and Sugarcane is taken as a cash crop. Many Horticultural crops like Banana, Sweet orange, Mango, Sapota, Orange etc are taken in the district.

v) Cultural activities

The city wears a festive look all round the year as many festivals and events are held in Nanded. City witnesses massive diversity from all round the country and experiences residential from Gujarat, Telangana, Andhra Pradesh, Kerala, Punjab provinces and Maharashtra itself. City celebrates every year Malegaon Yatra, shines glory of 5 days. Another crown of glory is Guruta Gaddi, celebrated once in 100 years. The city is the host of Marathi Sahitya Sammelan and Marathi Natya Sammelan, two fairs conducted for showcasing and offering respect to art and artists around the state.

3.2 Method of Sampling

3.2.1. Selection of District

For the present study, Nanded district was selected purposively from Marathwada region of Maharashtra state because this district has maximum number of sericulturists.

3.2.2. Selection of Talukas

Two talukas from Nanded district i.e. Nanded and Loha were selected purposively for the present study because these talukas has considerable number of sericulturists.

3.2.3. Selection of Villages

From each talukas, 2 villages i.e. total 4 villages were selected purposively for the present study on the basis of considerable number of sericulturists.

3.2.4. Selection of Respondents

From each selected village, 10 beneficiaries (Sericulturists) and 10 non-beneficiaries (non-sericulturists) were selected randomly. Thus, from marginal and small

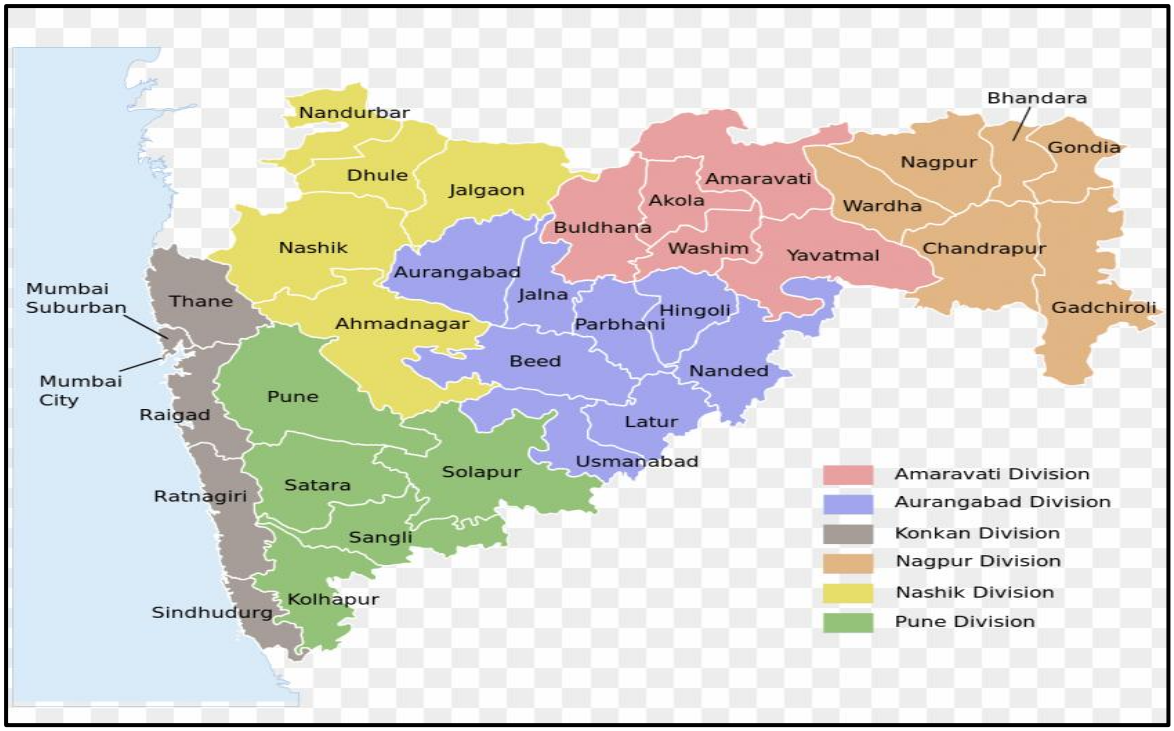

Fig.3.1: Map of Maharashtra State

Fig.3.2: Map of Marathwada Region

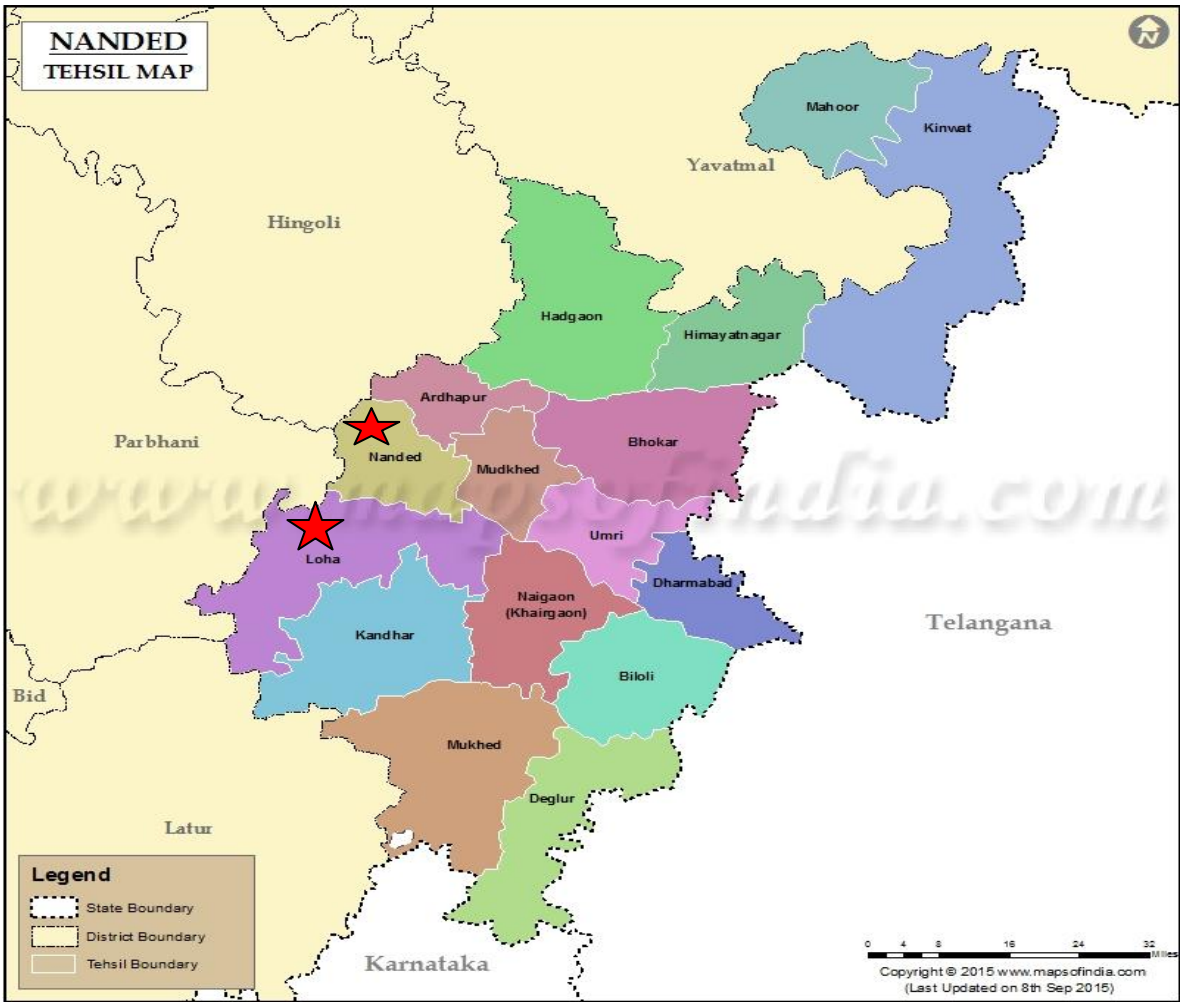

Fig.3.3: Map of Nanded District

Plate 3.1: Interaction with sericulture beneficiaries of Nanded Taluka

Plate 3.2: Interaction with sericulture beneficiaries of Loha Taluka

land holders total 80 respondents [40 beneficiaries and 40 non-beneficiaries] were selected from selected 4 villages.

3.3 Research Design

It refers to the direction or procedure used to carry out the present investigations. Ex-post-facto research design was used for the present study. Kerlinger (1976) stated that ex-post-facto approach as that in which the independent variable or variables have already occurred and created impact.

Table 3.1: Number of villages and respondents selected for the study

District	Talukas	Villages	Number of respondents	
			Beneficiaries	Non-beneficiaries
Nanded	1) Nanded	i) Dhangarwadi	10	10
		ii) Kotitirth	10	10
	2)Loha	iii) Kalambar	10	10
		iv) Vadepuri	10	10
			40	40
TOTAL			**80**	

3.4 Tools of Data Collection

3.4.1 Preparation of Interview Schedule

Considering the objectives of the study, a structured interview schedule was prepared in the local language i.e. Marathi. First part of interview schedule includes questions regarding the independent variables i.e. Age, Education, Type of Family, Size of Family, Annual income, Experience in Sericulture, Land holding, Social participation, Extension contact, Risk orientation and Number of training whereas second part containing the dependent variable i.e. Impact of sericulture enterprise. The constraints faced by the sericulturists and suggestions from them are taken and mentioned.

3.4.2 Pretesting of Schedule

Pre-testing of schedule helps to know and recover the mistakes in the schedule. For this purpose, the schedule was pre-tested with the respondents other than the respondents selected for interview. On the basis of pre-testing, the interview schedule was improved by eliminating the unnecessary questions and adding required questions. After completion of changes, interview schedule is finalized and required numbers of copies were made for data collection.

3.4.3 Method of Data Collection

For the present study data was collected with interview schedule through personal interview method. It involves the particulars related to the objectives of the study. The questions from the questionnaire were asked in the local language i.e. Marathi and tried to make questionnaire simple and easy to understand to get correct information from the respondents.

3.4.4 Tabulation and Analysis of Data

The collected data was carefully analyzed before its tabulation. All entries in schedule were checked for its accuracy and completeness. Data was tabulated and subjected to statistical analysis and interpretation. The empirical measurements of selected dependent and independent variables are given below;

Table 3.2: Variables and their empirical measurements

Sr. No.	Variables	Empirical measurement
A) Independent Variables		
1	Age	Chronological age of the farmer in the year
2	Education	Scale developed by Supe (2007)
3	Type of Family	Nuclear or joint family of the farmer
4	Size of Family	Total number of members present in the family
5	Annual income	Total annual income of the farmers family from all the sources in the year
6	Experience in farming	Number of years of experience of farmer in farming
7	Land holding	Classification as per State Government of Maharashtra
8	Social participation	Scale developed by Nirban (2004)
9	Extension contact	Scale developed by Sawant (1999)
10	Risk orientation	Scale developed by Supe (2007)
11	Number of Training	Number of training to farmers
B) Dependent Variable		
1	Impact of Sericulture Enterprise	Schedule was developed

3.5 Variables and their empirical measurement

A) Independent Variables

3.5.1 Age

It refers to the chronological age of the beneficiaries and non-beneficiaries completed in years at the time of interview taken. Hence, all beneficiaries and non-beneficiaries were classified into three categories i.e. young, middle and old age on the basis of Mean ± Standard Deviation.

Sr. No.	Categories	Age (years)	
		Beneficiaries	**Non-beneficiaries**
1	Young	Low (upto 37)	Low (upto 33)
2	Middle	Medium (38-52)	Medium (34-52)
3	Old	High (53 &above)	High (53 &above)
	Mean	**44.85**	**42.70**
	S.D.	**7.148**	**9.154**

3.5.2 Education

It refers to the formal education acquired from School to University i.e. Primary to Degree level by the beneficiaries and non-beneficiaries. For this, scale developed by Supe (2007) has been used. So, the respondents were asked to mention their highest education at the time of interview and they are categorized as;

Sr. No.	Category	Score
1	Illiterate	0
2	Can read only	1
3	Can read and write	2
4	Primary School (1^{st} to 4^{th})	3
5	Middle School (5^{th} to 10^{th})	4
6	High School (10^{th} to 12^{th})	5
7	College Level (above 12^{th})	6

3.5.3 Type of family

It refers to whether the respondents having nuclear (single family) or joint family (more than one family). Score for nuclear family is given as 1 and joint family as 2.

Sr. No.	Category	Score
1	Nuclear	1
2	Joint	2

3.5.4 Size of family

It refers to total number of members living in a family under a single roof having blood relation with each other. So, the beneficiaries and non-beneficiaries were classified as;

Sr. No.	Categories	Beneficiaries	Non-beneficiaries
1	Small	Small (upto 4)	Small (upto 4)
2	Medium	Medium(5-7)	Medium (5-7)
3	Big	Large (above 7)	Large (above 7)
	Mean	**5.525**	**5.400**
	S.D.	**1.601**	**1.661**

3.5.5 Annual income

It refers to the total earnings of the beneficiaries and non-beneficiaries along with family members in a year. It is classified on the basis of the structural schedule on the basis of Mean ± Standard deviation as;

Sr. No.	Categories	Beneficiaries	Non-beneficiaries
1	Low	Low (upto Rs. 2,67,337)	Low (uptoRs.90,048)
2	Medium	Medium (Rs.2,67,338-4,65,913)	Medium (Rs.90,049-2,17,952)
3	High	High (Rs. 4,65,914 & above)	High (Rs. 2,17,953 & above)
	Mean	**366625**	**154000**
	S.D.	**99288**	**63952**

3.5.6 Experience in farming

It refers to the succeeding number of years of experience of an individual beneficiaries and non-beneficiaries in farming. So, the respondents were grouped on the basis of Mean ± Standard deviation as;

Sr. No.	Categories	Beneficiaries	Non-beneficiaries
1	Low	Low(upto 4)	Low(upto 11)
2	Medium	Medium (5-11)	Medium (12-30)
3	High	High (12 & above)	High (31 & above)
	Mean	**7.775**	**20.775**
	S.D.	**3.347**	**9.780**

3.5.7 Land holding

It refers to the total number of hectares of land possessed by beneficiaries and non-beneficiaries. For the study only marginal and small farmers were selected.

Scores for marginal farmer is 1 and small farmer is 2. The respondents were grouped into following categories as per the State Government of Maharashtra as;

Sr. No.	Categories	Score
1	Marginal (less than 1 ha)	01
2	Small (1 to 2 ha)	02

3.5.8 Social participation

It refers to the involvement of respondents in the activities of formal and non-formal organizations. For this, scale developed by Nirban (2004) was used for measurement of score of social participation of each respondent. The score for an individual as member of an organization is '1' and office bearer is '2'. Further, score of '2' for regular participation, '1' for occasional and '0' for never participation. The different categories were made according to Mean ± Standard deviation as;

Sr. No.	Categories	Beneficiaries	Non-beneficiaries
1	Low	Low (upto 6)	Low (upto 3)
2	Medium	Medium (7-10)	Medium (4-9)
3	High	High (11 & above)	High (10 & above)
	Mean	**8.075**	**6.500**
	S.D.	**2.030**	**3.004**

3.5.9 Extension contact

It refers to the frequency of contacts of the respondents with the extension personnel during the year with a view to seek guidance on the problems related to agriculture in general. For this, scale developed by Sawant (1999) was used. Score regarding awareness for yes is '1'and for no '0'. Further, '4' for regular, '2' for occasional and '0' for never. Considering the Mean ± Standard deviation, respondents can be grouped into three categories as;

Sr. No.	Categories	Beneficiaries	Non-beneficiaries
1	Low	Low(up to 8)	Low(upto 13)
2	Medium	Medium (9-19)	Medium(14-19)
3	High	High (20 & above)	High (20 & above)
	Mean	**13.675**	**16.025**
	S.D.	**5.469**	**3.133**

3.5.10. Risk orientation

It refers to the degree to which respondents is oriented towards risk and uncertainty and having courage to face the problems in farming. It was measured with the help of scale developed by Supe (2007).

The scale has six statements; responses for positive statements were scored as 5,4,3,2 and 1 while for negative statements score was reversed in the order of magnitude. Scores obtained for each statement were summed up to get individual respondents. Different categories were made according to scores using formula Mean ± Standard deviation as;

Sr. No.	Categories	Beneficiaries	Non-beneficiaries
1	Low	Low (upto 13)	Low (upto 15)
2	Medium	Medium (14-22)	Medium (16 - 21)
3	High	High (23 & above)	High (22 & above)
	Mean	**17.35**	**18.05**
	S.D.	**4.632**	**3.381**

3.5.11 Number of training

It refers to the total number of training received by the respondents in a particular period of time. As per the training received by the respondents they are categorized into different categories with Mean ± Standard deviation as;

Sr. No.	Categories	Beneficiaries	Non-beneficiaries
1	Low	Low (upto 7)	Low (No training)
2	Medium	Medium (8 –18)	Medium (1-2)
3	High	High (19 & above)	High (3 &above)
	Mean	**12.625**	**1.075**
	S.D.	**5.789**	**0.997**

B) Dependent Variable

3.5.12 Impact

Impact explains the significance of the research work. Impact refers to the influence or effects on an individual, a community or development of policy. Impact refers to the process of finding the usefulness of external objects, events and information by means of senses. Impact means the effect of sericulture enterprise on its beneficiaries. The impact was assessed on five parameters like change in education, change in annual income, change in saving pattern, change in employment generation and change in

material possession. The overall impact was calculated by calculating the average of change in education, change in annual income, change in saving pattern, change in employment generation and change in material possession.

3.5.12.1 Change in education

Change in education can be defined as the educational facilities given to their children by the respondents. Scores given are '1' for Primary School, '2' for Middle School, '3' for High School, '4' for Bachelors Degree, '5' for Masters Degree and 6 for PhD. Based on the educational facilities provided by the respondents to their children they can be categorized using Mean ± Standard deviation as;

Sr. No.	Category	Educational Change	
		Beneficiaries	**Non-beneficiaries**
1	Low	Low (upto 4.0)	Low (upto 3.1)
2	Medium	Medium (4.1-5.5)	Medium (3.2-4.3)
3	High	High (5.6 & above)	High (4.4 &above)
	Mean	**4.75**	**3.70**
	S.D.	**0.742**	**0.563**

3.5.12.2 Change in annual income

Change in annual income can be defined as the additional income gained by the respondents within a year. The annual income is summed up together; farming, sericulture, dairy, poultry, job, and wages and other sources. Using Mean ± Standard deviation, based on the annual income the respondents can be grouped into following categories;

Sr. No.	Category	Change in Annual Income	
		Beneficiaries	**Non-beneficiaries**
1	Low	Low (upto Rs. 2,67,337)	Low (upto Rs. 90,048)
2	Medium	Medium (Rs.2,67,338 - 4,65,913)	Medium (Rs. 90,049 – 2,17,952)
3	High	High (Rs. 4,65,914 & above)	High (Rs. 2,17,953 & above)
	Mean	**366625**	**154000**
	S.D.	**99288**	**63952**

3.5.12.3 Change in saving pattern

Change in saving pattern refers to difference in habit of saving income by the respondents. Respondents on the basis of Mean ± Standard deviation can be categorized into following categories;

Sr. No.	Category	Change in Saving Pattern	
		Beneficiaries	**Non-beneficiaries**
1	Low	Low (uptoRs.99,755)	Low (upto Rs. 20,268)
2	Medium	Medium (Rs.99,756 - 1,87,745)	Medium (Rs.20,269 - 62,432)
3	High	High (Rs.1,87,746 & above)	High (Rs.62,433 & above)
	Mean	**143750**	**41350**
	S.D.	**43995**	**21081**

3.5.12.4 Change in employment generation

Employment generation refers to the additional employment days gained by the respondents. The respondents on the basis of Mean ± Standard deviation can be grouped into following categories;

Sr. No.	Category	Change in employment generation	
		Beneficiaries	**Non-beneficiaries**
1	Low	Low (upto 351)	Low (upto 231)
2	Medium	Medium (352 - 589)	Medium (232 -450)
3	High	High (590 & above)	High (451 & above)
	Mean	**470.25**	**341.00**
	S.D.	**119.001**	**109.539**

3.5.12.5 Change in material possession

Material possession refers to the things or assets owned by the respondents. Schedule was developed for the measurement of material possession. Here each assets is given 1 score and summed up together. Based on Mean ± Standard deviation, respondents are classified into following categories;

Sr. No.	Category	Change in Material Possession	
		Beneficiaries	**Non-beneficiaries**
1	Low	Low (upto 6)	Low (upto 6)
2	Medium	Medium (7-9)	Medium (7-9)
3	High	High (10 & above)	High (10 & above)
	Mean	**7.90**	**7.37**
	S.D.	**1.373**	**1.352**

3.6 Relationship between dependent and independent variables

From the past research studies, it is seen that behavior of individual changes time to time. Keeping this view in mind, an attempt was made to find the relation

between dependent and independent variables. For this coefficient of correlation(r) was used.

3.7 Statistical methods for analysis of the data

For the study the data was collected in qualitative form and then formulated into quantitative form. The data in qualitative form were tabulated into categories and data in quantitative form were categorized into low, medium and high categories. To know the relationship between characteristics of respondent correlation was used. The different statistical tools used for the present study are as follows;

3.7.1 Frequency and percentage

The collected data were analyzed and taken in terms of frequency and percentage. The frequency and percentage were calculated for making simple comparisons. For calculation, frequency of particular category was multiplied by hundred and then divided by the total number of respondents to get percentage.

3.7.2 Mean

Mean was calculated by over all sum of particular score and then dividing it by total number of items. Formula for Mean is as follows;

$$\bar{X} = \frac{\Sigma X}{N}$$

Where,

$\bar{X}$ = Arithmetic mean

ΣX = Sum of respondents score

N = Number of respondents

3.7.3 Standard deviation

Standard deviation is the square root of mean of the squared deviations from the arithmetic mean. Standard deviation is denoted by 'σ' (sigma). It is calculated by using the following formula-

$$SD = \sqrt{\frac{\Sigma X^2}{N}}$$

Where,

SD = Standard deviation

ΣX^2= Sum of square of X series

N = Number of respondents

3.7.4 Pearson's Correlation Coefficient

To find out the significant relationship between independent and dependent variables of the sample respondents, Pearson's Correlation Coefficient is used. It is calculated by the formula given below;

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}}$$

Where,

r = Coefficient of Correlation

x = Independent variable

y = Dependent variable

3.7.5 Z-test

Z-test is used to know the significance of difference between mean of two groups.

The formula used is given below;

$$Z = \frac{|\overline{X}_1 - \overline{X}_2|}{\sqrt{\frac{S_1}{n_1} + \frac{S_2}{n_2}}}$$

Where,

X_1= Mean of first series

X_2= Mean of second series

S_1= Variance of first series

S_2= Variance of second series

n_1= Total number of first sample

n_2= Total number of second sample

CHAPTER – IV

RESULTS AND DISCUSSION

CHAPTER-IV

RESULTS AND DISCUSSION

The chapter results and discussion examines collected data based on empirical measurements of the present study. The main objective of the present study was to study the impact of sericulture enterprise on its beneficiaries, constraints faced and suggestions to overcome the problems. This chapter deals with the results and discussions of present investigation. According to objectives of the study, data were collected, analyzed, tabulated and subjected to statistical analysis.

In accordance with the objectives of study, results and discussions obtained from analysis have been presented with following objectives:

4.1 To study profile of the beneficiaries.

4.2 To study impact of the sericulture enterprise on its beneficiaries.

4.3 To delineate relationship between profile of beneficiaries with impact of sericulture enterprise.

4.4 To find out the problems faced by the beneficiaries in their enterprise and to invite their suggestions.

4.1 Profile of the beneficiaries

4.1.1 Age

Age can be defined as chronological age of the respondents completed in years from birth at the time of interview. Distribution of the respondents according to their age is given in Table 4.1 and graphically represented in Fig.4.1.

Table 4.1: Distribution of respondents according to their age

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)	
		F	%		F	%
1	Young (upto 37)	09	22.50	Young (upto 33)	08	20.00
2	Middle (38-52)	26	65.00	Middle (34-52)	24	60.00
3	Old (53& above)	05	12.50	Old (53 & above)	08	20.00
	Total	**40**	**100**		**40**	**100**
	Mean	**44.85**			**42.70**	
	S.D.	**7.148**			**9.154**	

From Table 4.1, it can be seen that majority of the beneficiaries (65.00 %) were belonged to middle age group, followed by beneficiaries belonged to young age group were 22.50 per cent and remaining 12.50 per cent beneficiaries belonged to old age group.

Whereas, 60.00 per cent of the non-beneficiaries belonged to middle age group, followed by 20.00 per cent of non-beneficiaries belonged to young age group and remaining 20.00 per cent of non-beneficiaries belonged to old age group.

The findings from above table shows that majority of beneficiaries belonged to middle age category. It means that the middle age beneficiaries are more inclined to try and adopt new technologies.

The findings are similar with Bhandari (2014) and Kale (2020).

4.1.2 Education

Education refers to the formal education gained by the respondents from school to university level. Distribution of respondents according to their education is shown in Table 4.2 and graphically represented in Fig.4.2.

Table 4.2: Distribution of respondents according to their education

Sr. No.	Category	Beneficiary (n=40)		Non-beneficiary (n=40)	
		F	%	F	%
1	Illiterate	02	05.00	05	12.50
2	Can read only	00	00.00	02	05.00
3	Can read and write	00	00.00	03	07.50
4	Primary School (1^{st}-4^{th} std)	02	05.00	10	25.00
5	Middle school (5^{th}-10^{th} std)	18	45.00	13	32.50
6	High school (11^{th}-12^{th} std)	12	30.00	04	10.00
7	Graduate (above 12^{th})	06	15.00	03	07.50
	Mean	**4.35**		**3.20**	
	S.D.	**1.291**		**1.682**	

From Table 4.2, it is evident that majority of the beneficiaries (45.00 %) were educated upto middle school level, followed by 30.00 per cent of beneficiaries were educated upto high school level. While, 15.00 per cent beneficiaries were educated upto graduate level, 5.00 per cent beneficiaries were educated upto primary school and 5.00 per cent beneficiaries were illiterate. No respondents were included in ‘can read only’ category and also ‘can read and write category’.

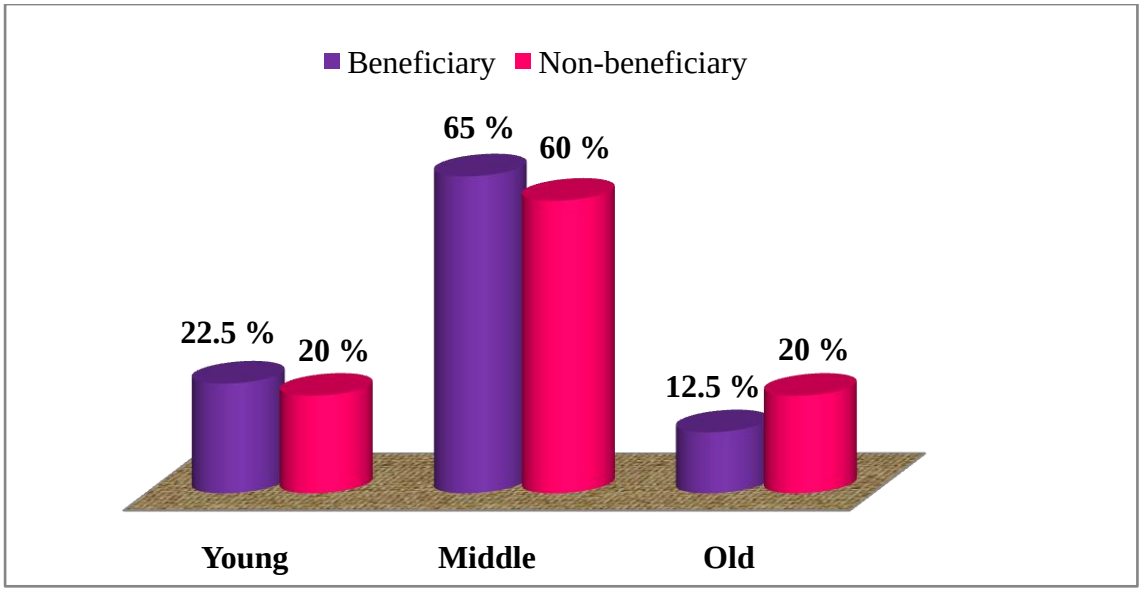

Fig. 4.1: Distribution of respondents according to their age

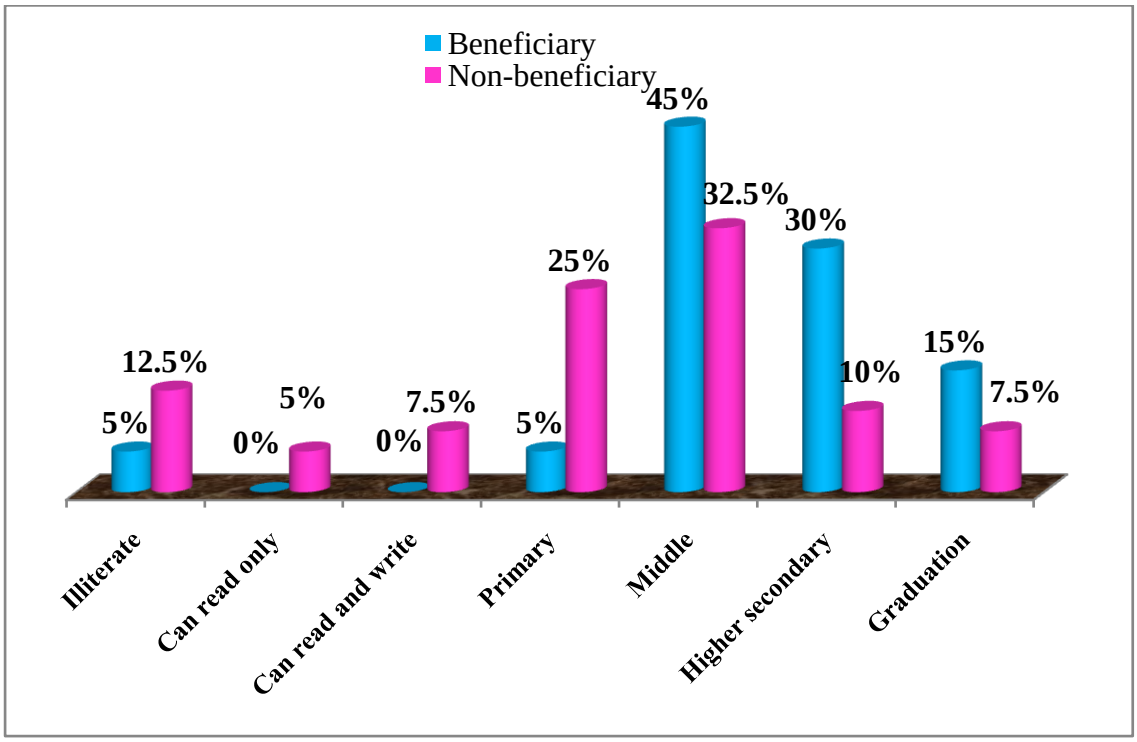

Fig. 4.2: Distribution of respondents according to their education

Whereas, majority (32.50 %) per cent of non-beneficiaries were educated upto middle school level, followed by 25.00 per cent non-beneficiaries were educated upto primary school level, 12.00 per cent were illiterate, 10.00 per cent were educated upto high school level. While can read and write and graduate non-beneficiaries were having each 7.50 per cent. Remaining 5.00 per cent non-beneficiaries were in 'can read only' category.

The findings shows that majority of beneficiaries are educated upto middle school level. It means that there is low level of education, but sericulture enterprise helps them to increase their knowledge and skill.

The findings are in line with Kale (2020).

4.1.3 Type of family

It refers to whether the respondents having nuclear (single family) or joint family (more than one family). Distribution of respondents according to family type is given in Table 4.3 and graphically represented in Fig.4.3.

Table 4.3: Distribution of respondents according to family type

Sr. No.	Category	Beneficiary (n=40)		Non-beneficiary (n=40)	
		F	%	F	%
1	Nuclear	24	60.00	22	55.00
2	Joint	16	40.00	18	45.00
	Total	**40**	**100**	**40**	**100**
	Mean	**1.40**		**1.45**	
	S.D.	**0.496**		**0.503**	

Table 4.3 reported that majority i.e. 60.00 per cent of beneficiaries belonged to nuclear family while 40.00 per cent beneficiaries belonged to joint family. Whereas, majority non-beneficiaries (55.00 %) belonged to nuclear family and 45.00 per cent non-beneficiaries belonged to joint family.

It means that requirements of nuclear family are less as compared to joint family and can be timely available.

The findings are similar with Dhulgand (2016).

4.1.4 Size of family

It refers to total number of members living in a family under a single roof having blood relation with each other. Distribution of respondents according to family size is given in Table 4.4 and graphically represented in Fig.4.4.

Table 4.4: Distribution of respondents according to family size

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)	
		F	%		F	%
1	Small (upto 4)	12	30.00	Small (upto 4)	16	40.00
2	Medium(5-7)	22	55.00	Medium (5-7)	20	50.00
3	Large (above 7)	06	15.00	Large (above 7)	04	10.00
	Total	**40**	**100**		**40**	**100**
	Mean	**5.525**			**5.400**	
	S.D.	**1.601**			**1.661**	

From Table 4.4, it was revealed that majority of beneficiaries (55.00 %) belonged to medium size of family, followed by 30.00 per cent of beneficiaries belonged to small size of family and remaining 15.00 per cent beneficiaries belonged to big family size.

In case of non-beneficiaries (50.00 %) belonged to medium family size, while 40.00 per cent non- beneficiaries belonged to small family size and 10 per cent non-beneficiaries belong to big family size.

Majority of the respondents belonged to small to medium family size.

The reason might be that fragmentation of families. Now-a-days people are preferring nuclear family as compared to joint family and also the migration from rural to urban area.

The findings are similar with Kale (2012), Bhandari (2014) and Adsul (2016).

4.1.5 Annual income

It refers to the total earnings of the beneficiaries and non-beneficiaries along with family members in a year. Distribution of respondents according to annual income is given in Table 4.5 and graphically represented in Fig.4.5.

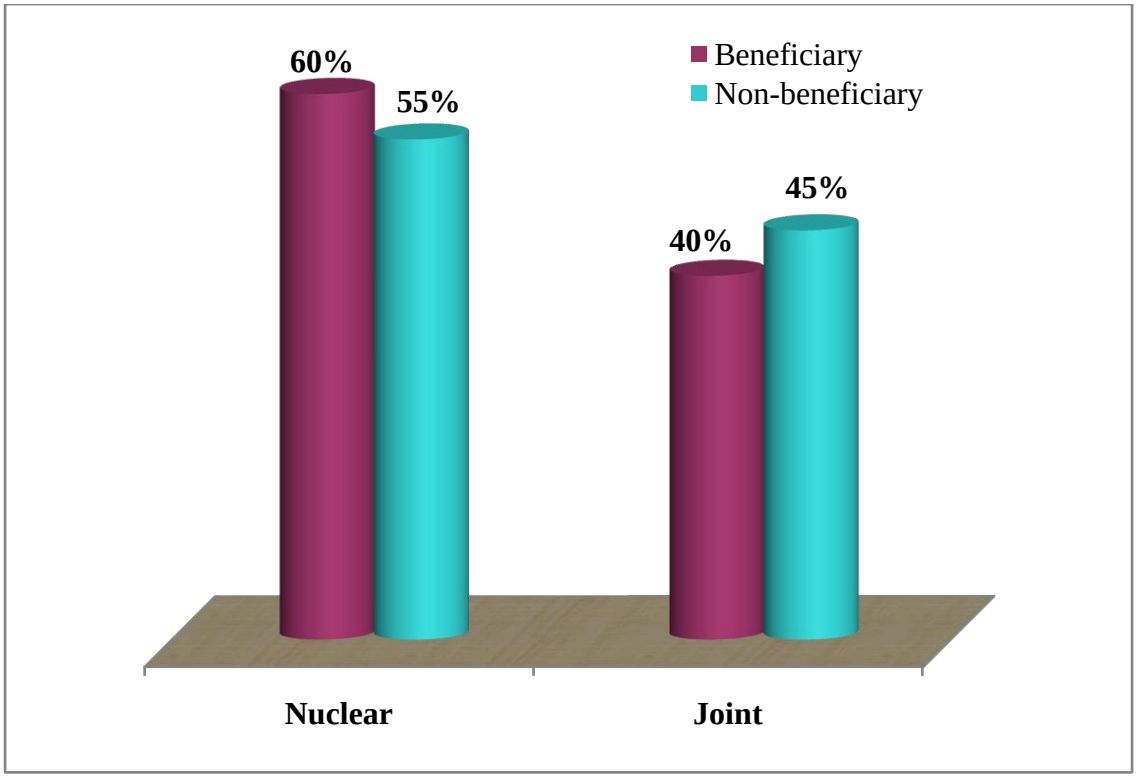

Fig. 4.3: Distribution of respondents according to their family type

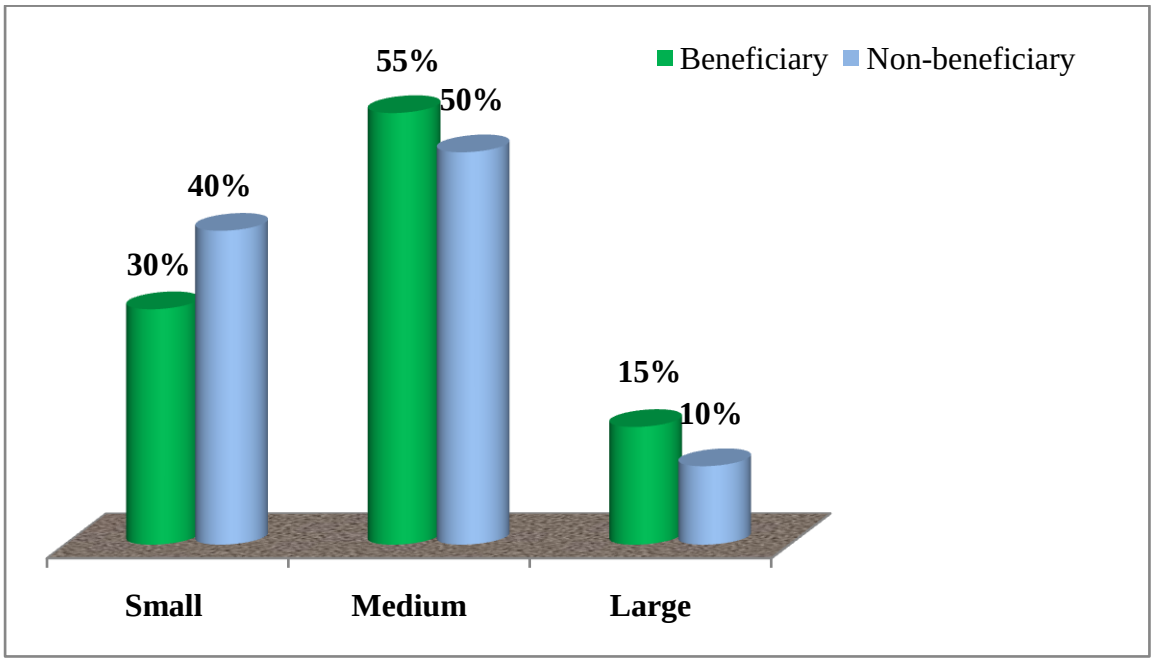

Fig. 4.4: Distribution of respondents according to their family size

Table 4.5: Distribution of respondents according to their annual income

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)	
		F	%		F	%
1	Low (upto Rs. 2,67,337)	05	12.50	Low (upto Rs. 90,048)	01	2.50
2	Medium (Rs.2,67,338-4,65,913)	29	72.50	Medium (Rs.90,049-2,17,952)	35	87.50
3	High (Rs.4,65,914 & above)	06	15.00	High (Rs.2,17,953 & above)	04	10.00
	Total	**40**	**100**		**40**	**100**
	Mean	**366625**			**154000**	
	S.D.	**99288**			**63952**	

From Table 4.5, it was concluded that majority 72.50 per cent of beneficiaries were in medium annual income category, followed by 15.00 per cent beneficiaries belonged to high annual income category and remaining 12.50 per cent beneficiaries belonged to low annual income category.

Whereas, majority 87.50 per cent non-beneficiaries belonged to medium annual income category, followed by 10.00 per cent non-beneficiaries belonged to high annual income category and remaining 2.50 per cent non-beneficiaries belonged to low annual income category.

It might be due to marginal and small land holding of the beneficiaries and non-beneficiaries. Whereas, beneficiaries get more income from sericulture enterprise.

The findings are similar with Bhandari (2014), Khandave and Suryawanshi (2015) and Adsul (2016).

4.1.6 Experience in farming

It refers to the succeeding number of years of experience of an individual beneficiaries and non-beneficiaries in farming. Distribution of respondents according to experience in farming is given in Table 4.6 and graphically represented in Fig.4.6.

Table 4.6: Distribution of respondents according to experience in farming

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)	
		F	%		F	%
1	Low(upto 4)	06	15.00	Low(upto 11)	09	22.50
2	Medium (5-11)	26	65.00	Medium (12-30)	24	60.00
3	High (12 & above)	08	20.00	High (31 & above)	07	17.50
	Total	**40**	**100**		**40**	**100**
	Mean	**7.775**			**20.775**	
	S.D.	**3.347**			**9.780**	

From Table 4.6, it was evident that majority of beneficiaries (65.00 %) having medium level of farming experience, followed by 20.00 per cent of beneficiaries having high level of farming experience. Remaining 15.00 per cent beneficiaries included having low level of farming experience.

Whereas, majority of respondents i.e. 60.00 per cent non-beneficiaries having medium farming experience, followed by 22.50 per cent non-beneficiaries having low farming experience and remaining 17.50 per cent non-beneficiaries having high farming experience.

The reason for the beneficiaries of medium category of farming experience might be that they are inclined to try and adopt new technologies as compared to less farming categories, majority of them belonged to middle age category.

The findings are similar with Pise (2017) and Kale (2020).

4.1.7 Land holding

It refers to the total number of hectares of land possessed by beneficiaries and non-beneficiaries. Distribution of respondents according to land holding is given in Table 4.7 and graphically represented in Fig.4.7.

Table 4.7: Distribution of respondents according to land holding

Sr. No.	Category	Beneficiary		Category	Non-beneficiary	
		F	%		F	%
1	Marginal	12	30	Marginal	12	30
2	Small (1- 2 ha)	28	70	Small (1- 2 ha)	28	70
	Total	40	100		40	100
	Mean	**1.7**			**1.7**	
	S.D.	**0.464**			**0.464**	

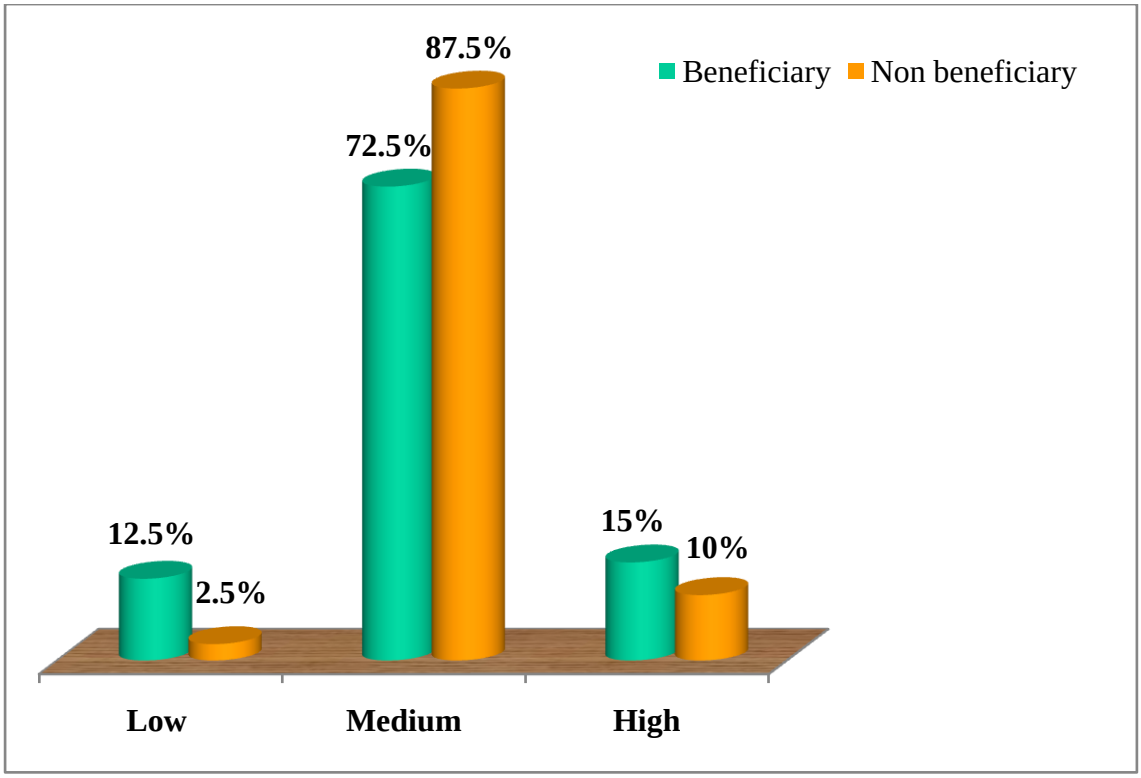

Fig.4.5: Distribution of respondents according to their annual income

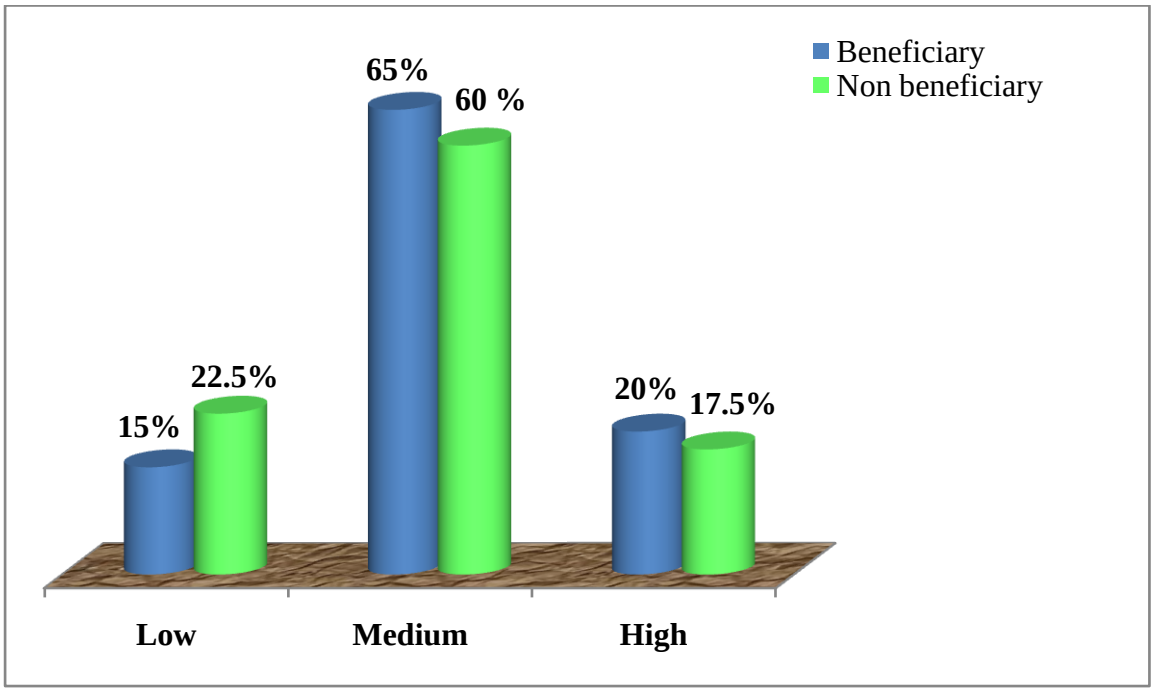

Fig.4.6: Distribution of respondents according to their experience in farming

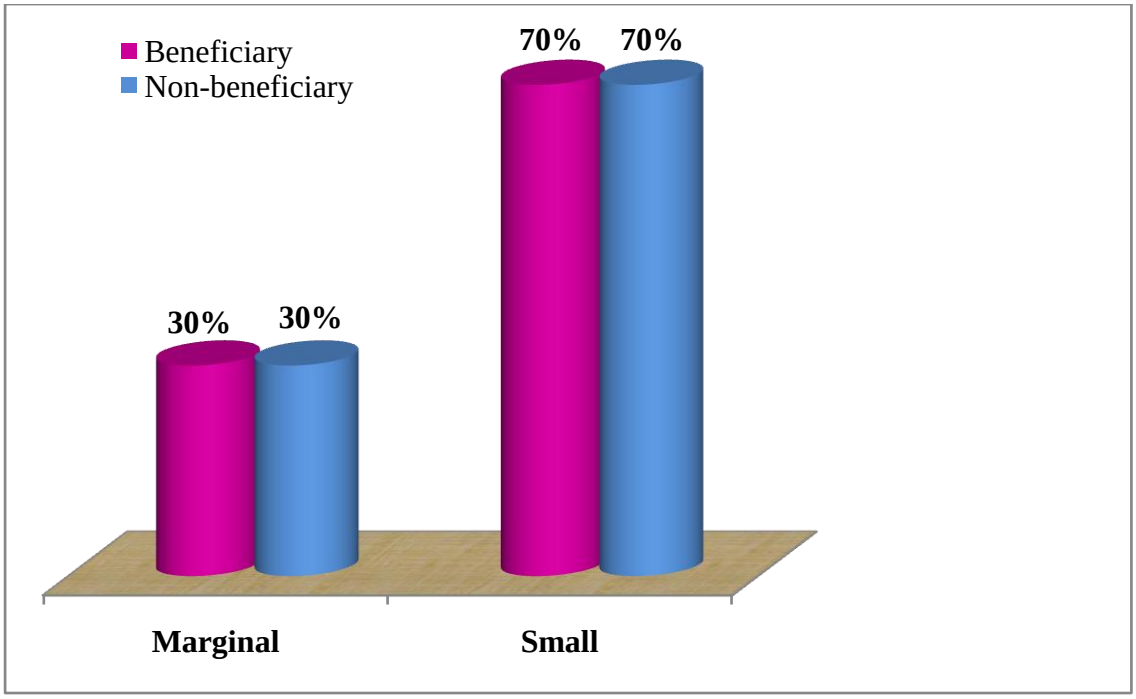

Fig.4.7: Distribution of respondents according to land holding

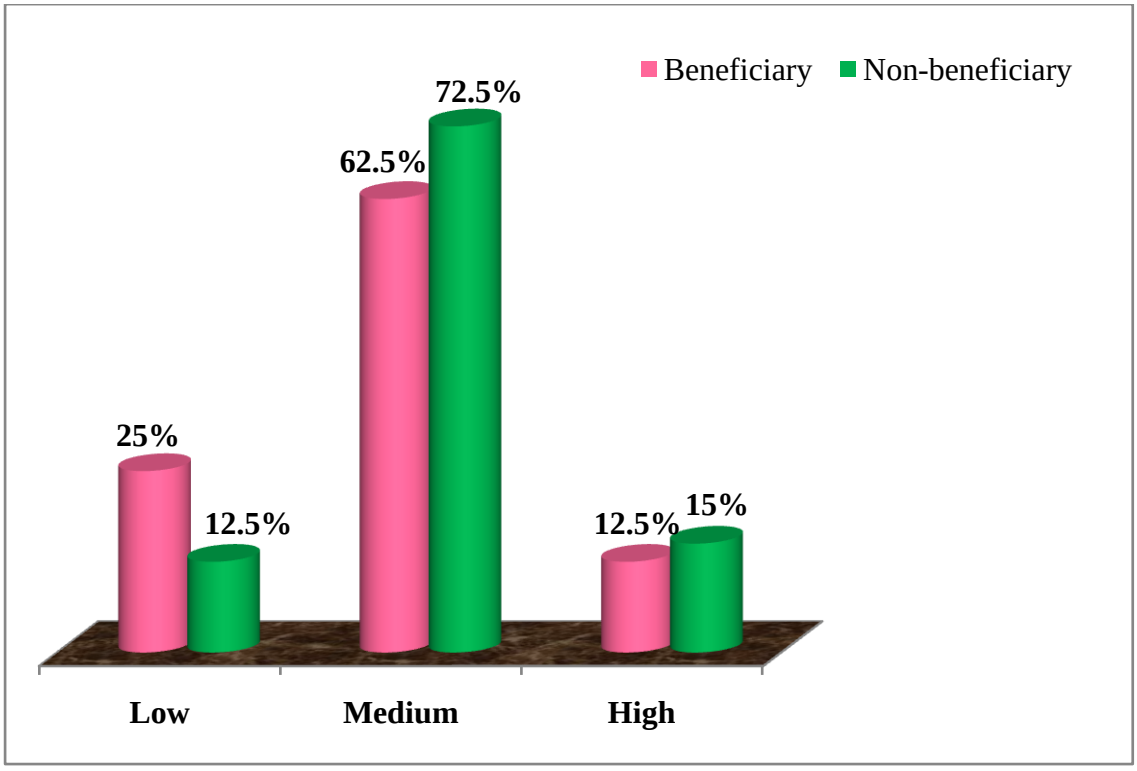

Fig.4.8: Distribution of respondents according to social participation

Table 4.7 revealed that 70 per cent beneficiaries had small land holding while 30 per cent beneficiaries had marginal land holding.

In case of non-beneficiaries 70 per cent non-beneficiaries had small land holding while 30 per cent non-beneficiaries had marginal land holding.

The reason might be that land holding is reducing due to fragmentation of land.

The findings are similar with findings of Patil (2010) and Todmal (2012).

4.1.8 Social participation

It refers to the involvement of respondents in the activities of formal and non-formal organizations. Distribution of respondents according to social participation is given in Table 4.8 and graphically represented in Fig.4.8.

Table 4.8: Distribution of respondents according to their social participation

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)	
		F	%		F	%
1	Low(upto 6)	10	25.00	Low(up to 3)	05	12.50
2	Medium(7-10)	25	62.50	Medium (4-9)	29	72.50
3	High (11 & above)	05	12.50	High (10 & above)	06	15.00
	Total	**40**	**100**		**40**	**100**
	Mean	**8.075**			**6.500**	
	S.D.	**2.0303**			**3.004**	

From Table 4.8, it was observed that majority of the beneficiaries (62.50 %) had medium social participation, followed by 25.00 per cent beneficiaries had low social participation and 12.50 per cent beneficiaries had high social participation.

Whereas, majority of non-beneficiaries (72.50%) had medium social participation, followed by 15.00 per cent non-beneficiaries had high social participation and remaining 12.50 per cent non-beneficiaries had low social participation.

It means that medium category beneficiaries had increasing exposure with different social institutions which increases awareness among them and create interest to adopt new technologies and allied enterprises.

The findings are similar with findings of Chopde (2019).

4.1.9 Extension contact

It refers to the frequency of contacts of the respondents with the extension personnel during the year with a view to seek guidance on the problems related to agriculture in general.

Distribution of respondents according to extension contact is given in Table 4.9 and graphically represented in Fig.4.9.

Table 4.9: Distribution of respondents according to their extension contact

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)	
		F	%		F	%
1	Low(up to 8)	11	27.50	Low(upto 13)	09	22.50
2	Medium (9-19)	22	55.00	Medium(14-19)	27	67.50
3	High(20 & above)	07	17.50	High (20 & above)	04	10.00
	Total	**40**	**100**		**40**	**100**
	Mean	**13.675**			**16.025**	
	S.D.	**5.469**			**3.133**	

From Table 4.9, it was evident that majority of the beneficiaries (55.00 %) had medium extension contact; followed by 27.50 per cent had low and remaining 17.50 per cent had high extension contact.

Whereas, majority 67.50 per cent of non-beneficiaries had medium extension contact, followed by 22.50 per cent non-beneficiaries had low extension contact and remaining 10.00 per cent non-beneficiaries had high extension contact.

The reason might be that increase in extension contact helps the beneficiaries to increase the marketing and production technologies regarding sericulture.

The findings are similar with findings of Chopde (2019).

4.1.10 Risk orientation

It refers to the degree to which respondents is oriented towards risk and uncertainty and having courage to face the problems in farming. Distribution of respondents according to extension contact is given in Table 4.10 and graphically represented in Fig.4.10.

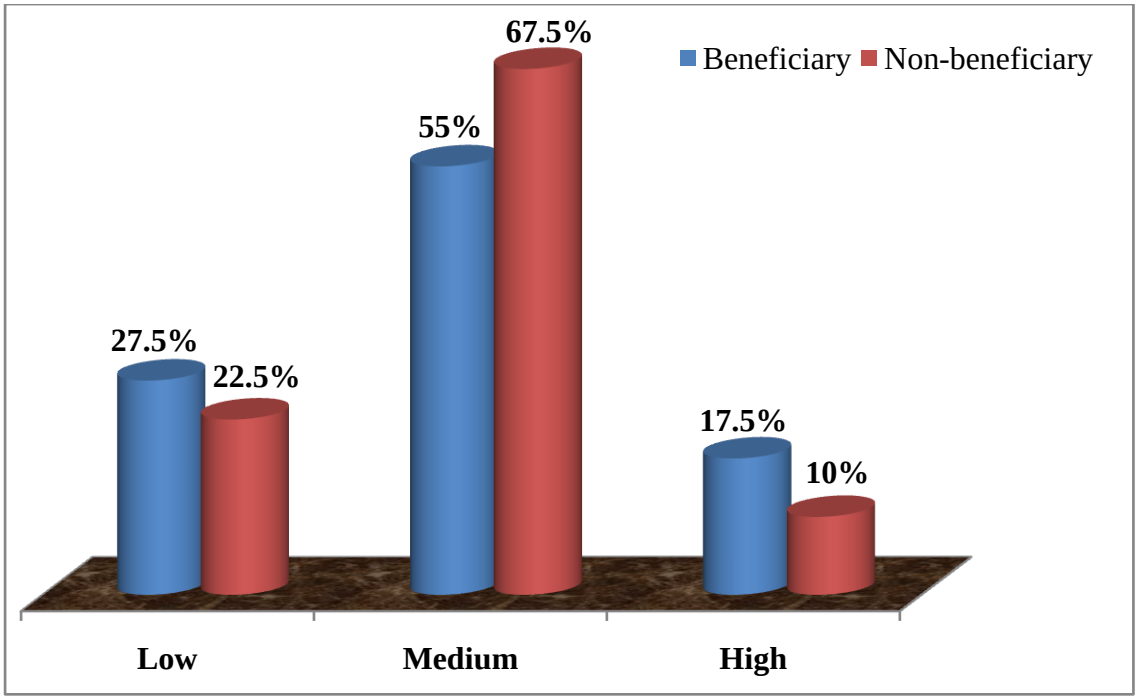

Fig.4.9: Distribution of respondents according to extension contact

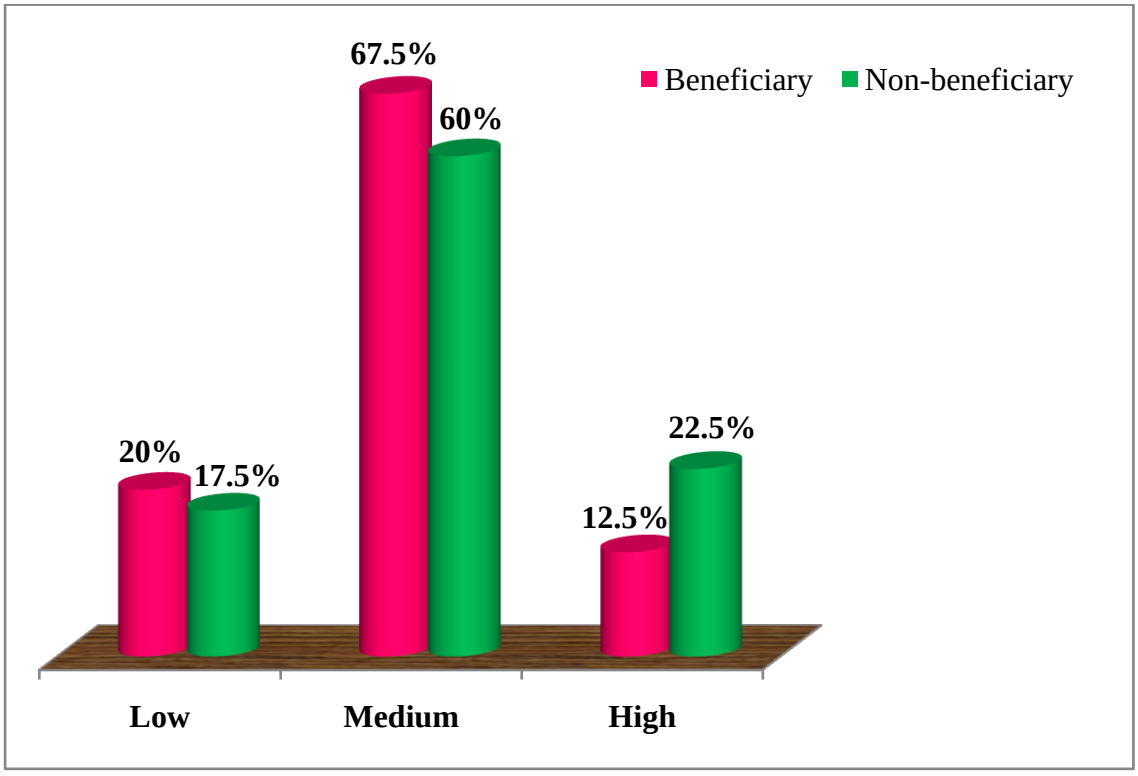

Fig.4.10: Distribution of respondents according to risk orientation

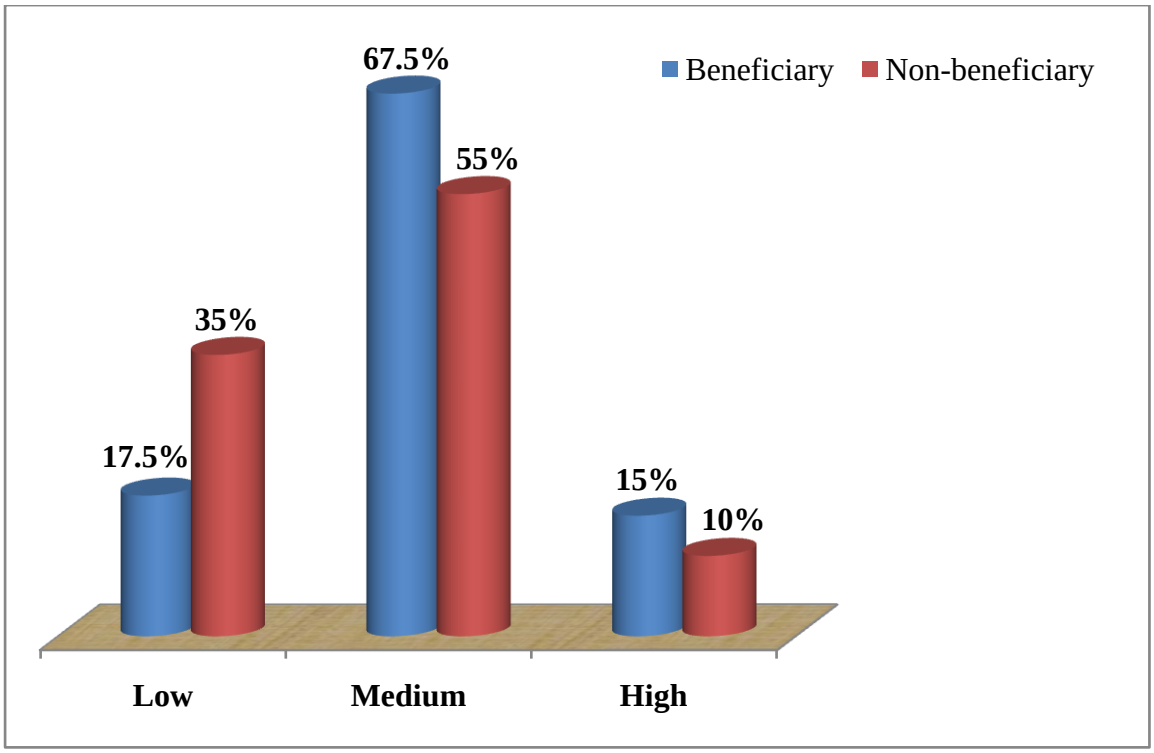

Fig.4.11: Distribution of respondents according to number of training

Table 4.10: Distribution of respondents according to risk orientation

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)	
		F	%		F	%
1	Low (upto 13)	08	20.00	Low (upto 15)	07	17.50
2	Medium (14-22)	27	67.50	Medium (16-21)	24	60.00
3	High (23 & above)	05	12.50	High (22 & above)	09	22.50
	Total	**40**	**100**		**40**	**100**
	Mean	**17.35**			**18.05**	
	S.D.	**4.632**			**3.381**	

From Table 4.10, it was observed that majority of beneficiaries 67.50 per cent had medium risk orientation; followed by 20.00 per cent beneficiaries had low risk orientation and remaining 12.50 per cent beneficiaries had high risk orientation.

Whereas, majority of non-beneficiaries i.e. 60.00 per cent had medium risk orientation, followed by 22.50 per cent non-beneficiaries had high risk orientation and remaining 17.50 per cent non-beneficiaries had high risk orientation.

The reason might be that the increase in risk taking ability helps beneficiaries to improve their knowledge and skills and earn more profit as compared to non-beneficiaries.

The findings are similar with findings of Chopde (2019).

4.1.11 Number of training

It refers to the total number of training received by the respondents in a particular period of time. Distribution of respondents according to extension contact is given in Table 4.11 and graphically represented in Fig.4.11.

Table 4.11: Distribution of respondents according to number of training

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)	
		F	%		F	%
1	Low (upto 7)	07	17.50	Low (No training)	14	35.00
2	Medium (8-18)	27	67.50	Medium(1-2)	22	55.00
3	High (19 & above)	06	15.00	High (3 & above)	04	10.00
	Total	**40**	**100**		**40**	**100**
	Mean	**12.625**			**1.075**	
	S.D.	**5.789**			**0.997**	

From Table 4.11, it was evident that majority of beneficiaries i.e. 67.50 per cent receive training belonged to medium category, followed by 17.50 per cent beneficiaries belonged to low category and remaining 15.00 per cent beneficiaries belonged to low category.

Whereas, majority of non-beneficiaries 55.00 per cent receive training belonged to medium category, followed by 35.00 per cent non-beneficiaries belonged to low category and remaining 10.00 per cent non-beneficiaries belonged to high category.

The reason might be that farmers with more number of trainings received are ready to take risk and use their knowledge for getting more earnings as compared to non-beneficiaries.

4.2 Impact of the sericulture enterprise on its beneficiaries

4.2.1 Change in education

Change in education can be defined as the educational facilities given to their children by the respondents. Distribution of respondents according to extension contact is given in Table 4.12 and graphically represented in Fig.4.12.

Table 4.12: Distribution of beneficiaries according to educational change

Sr. No.	Category	Beneficiary (n=40)		Non-beneficiary (n=40)		Z value
		F	%	F	%	
1	Primary school	00	00.00	00	00.00	**7.12****
2	Middle school	00	00.00	00	00.00	
3	Higher secondary	00	00.00	14	35.00	
4	Bachelors	17	42.50	24	60.00	
5	Masters	16	40.00	02	05.00	
6	Ph.D.	07	17.50	00	00.00	
	Total	**40**	**100**	**40**	**100**	
	Mean	**4.75**		**3.70**		
	S.D.	**0.742**		**0.563**		

From Table 4.12, it was observed that majority of the beneficiaries 42.50 per cent were capable to educate their children upto Bachelors, followed by 40.00 per cent beneficiaries upto Masters and remaining 17.50 per cent beneficiaries upto Ph.D. level.

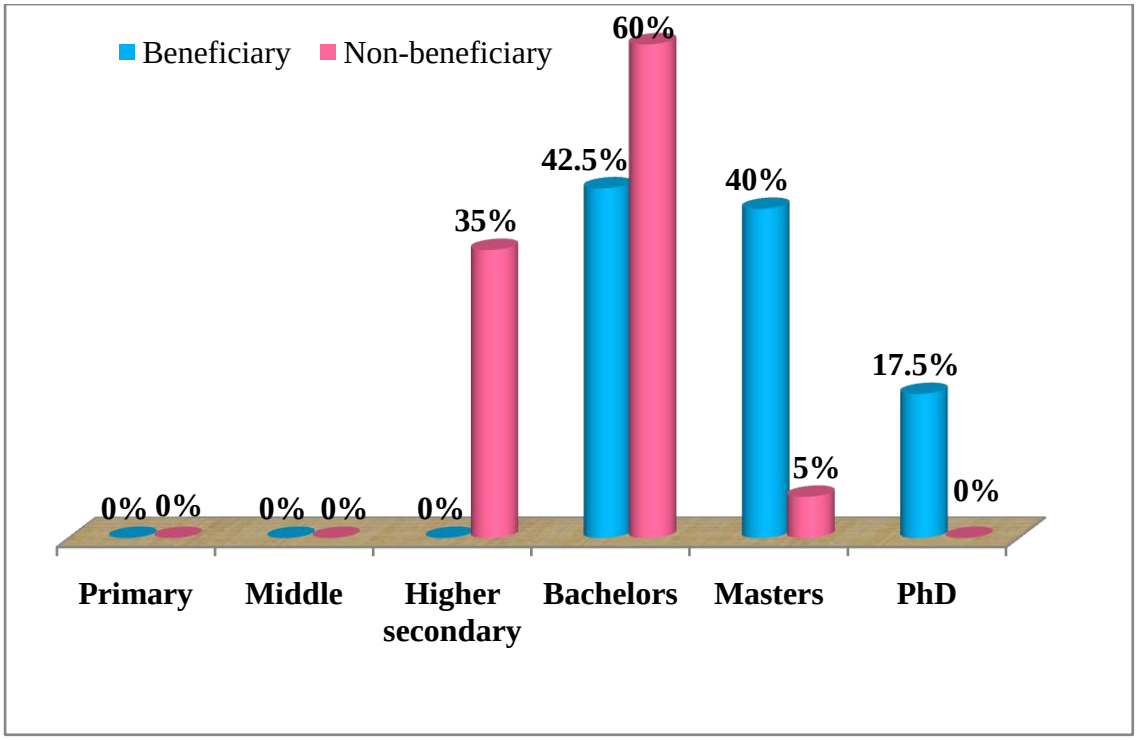

Fig.4.12: Distribution of beneficiaries according to educational change

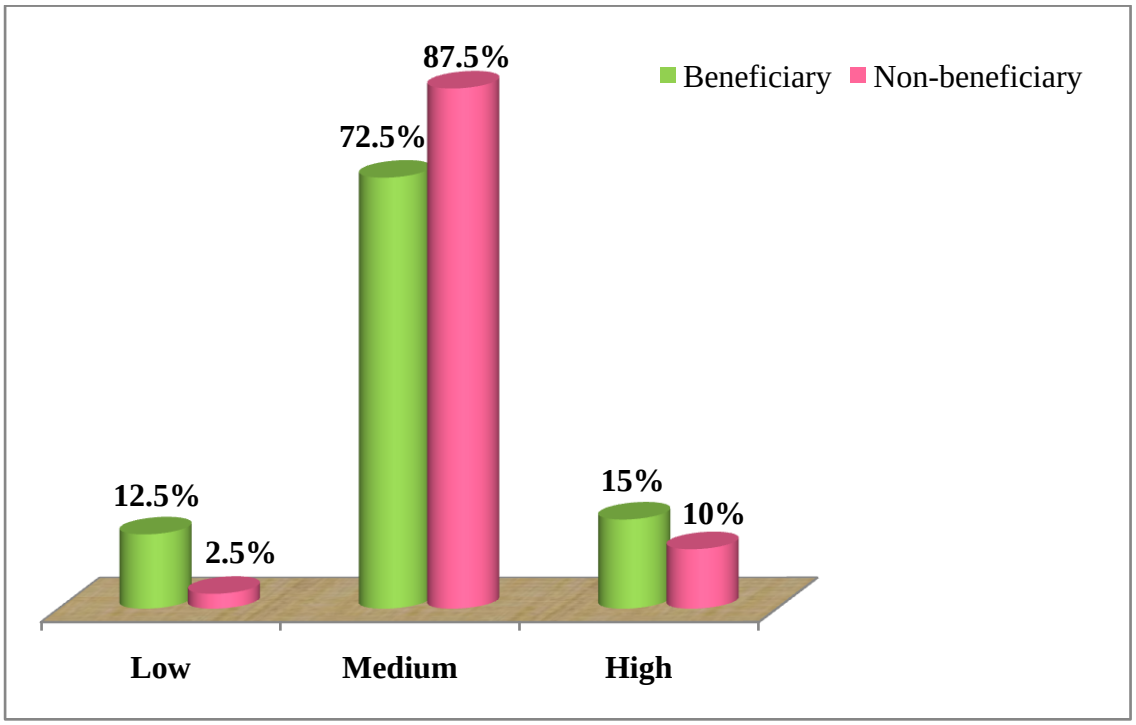

Fig.4.13: Distribution of beneficiaries according to change in annual income

Whereas, majority of non-beneficiaries 60.00 per cent were capable to educate their children upto Bachelors, followed by 35.00 per cent upto higher secondary and remaining 5.00 per cent upto Masters.

The reason might be that increase in annual income helps respondents to give well education to their children. In case of non-beneficiaries only 05.00 per cent respondents were able to give education to their child above bachelors degree level due to poor economic condition.

The Z value of beneficiaries and non-beneficiaries was found highly significant at 0.01 level of probability.

4.2.2 Change in annual income

Change in annual income can be defined as the additional income gained by the respondents within a year. Distribution of respondents according to extension contact is given in Table 4.13 and graphically represented in Fig.4.13.

Table 4.13: Distribution of beneficiaries according to change in annual income

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)		Z value
		F	%		F	%	
1	Low (upto Rs.2,67,337)	05	12.50	Low (upto Rs.90,048)	01	02.50	**11.38****
2	Medium (Rs.2,67,338-4,65,913)	29	72.50	Medium (Rs.90,049 - 2,17,952)	35	87.50	
3	High (Rs.4,65,914 & above)	06	15.00	High (Rs.2,17,953 &above)	04	10.00	
	Total	**40**	**100**		**40**	**100**	
	Mean	**366625**			**154000**		
	S.D.	**99288**			**63952**		

From Table 4.13, it was observed that majority of the beneficiaries 72.50 per cent earned Rs. 2,67,338 to Rs. 4,65,913. Followed by 15.00 per cent beneficiaries earned more than Rs. 4,65,913, remaining 12.5 per cent beneficiaries earned upto Rs. 2, 67,337.

Whereas, majority of non-beneficiaries 87.50 per cent earned Rs.90, 049 to Rs.2,17,952, followed by 10.00 per cent non-beneficiaries earned more than Rs. 2, 17,952 and remaining 02.50 per cent earned upto Rs. 90,048.

Sericulture gives more profit with less land holding and investment. The annual income of the respondents changes due to additional income gained with the main farming through sericulture.

The Z value of beneficiaries and non-beneficiaries was found highly significant at 0.01 level of probability.

It revealed that due to sericulture enterprise, the annual income of sericulturists were more as compared to non-beneficiaries.

4.2.3 Change in saving pattern

Change in saving pattern refers to difference in habit of saving income by the respondents. Distribution of respondents according to extension contact is given in Table 4.14 and graphically represented in Fig.4.14.

Table 4.14: Distribution of beneficiaries according to change in saving pattern

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)		Z value
		F	%		F	%	
1	Low (upto Rs.99,755)	07	17.50	Low (upto Rs.20,268)	05	12.50	**13.27****
2	Medium (Rs.99,756 - 1,87,745)	28	70.00	Medium (Rs.20,269- 62,432)	31	77.50	
3	High (Rs.1,87,746& above)	05	12.50	High (Rs.62,433 & above)	04	10.00	
	Total	**40**	**100**		**40**	**100**	
	Mean	**143750**			**41350**		
	S.D.	**43995.19**			**21081.71**		

From Table 4.14, it was concluded that annual saving of majority of beneficiaries (70.00 %) had medium annual saving between Rs. 99, 756/- to Rs. 1, 87,745/- , followed by 17.50 per cent of beneficiaries had low annual saving upto Rs. 99,755/- and remaining 12.50 per cent of beneficiaries had high annual saving above Rs.1, 87,745/-

Whereas, majority of non-beneficiaries (77.50 %) of beneficiaries had between Rs.20, 269/- to Rs.62, 432/- , followed by 12.50 per cent low annual saving upto Rs. 20, 268/- and remaining 10.00 per cent had high annual saving above Rs.62,432/-

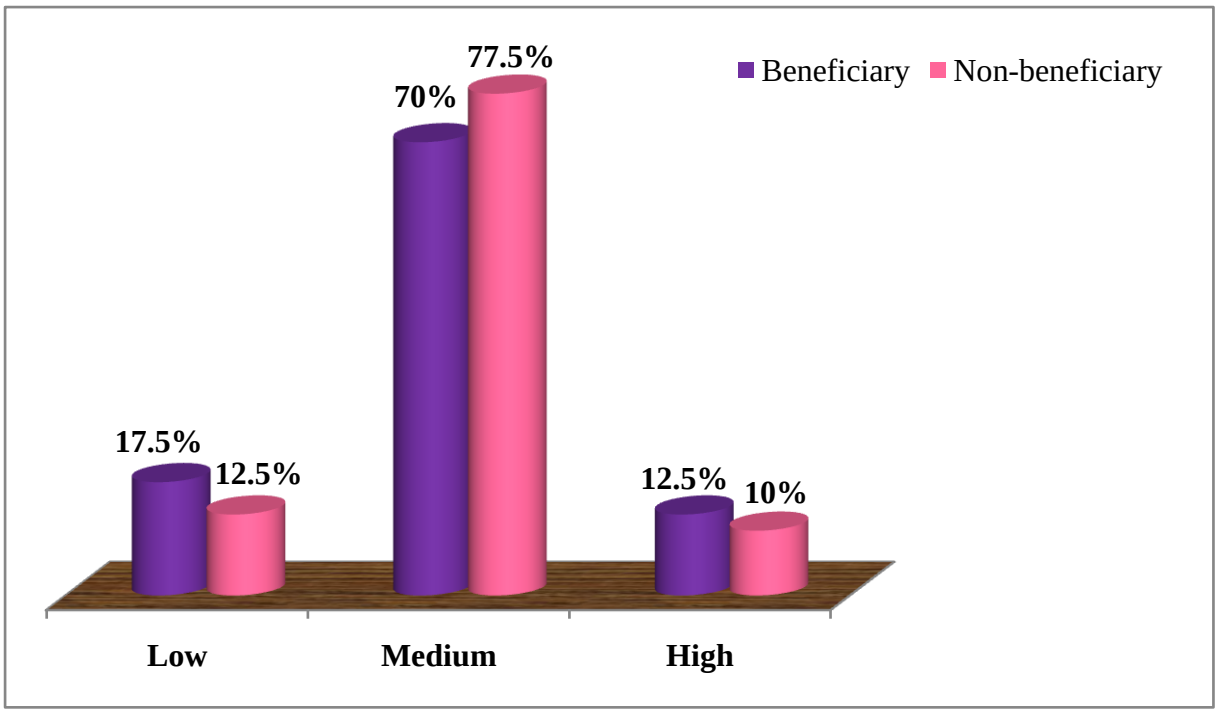

Fig.4.14: Distribution of beneficiaries according to change in saving pattern

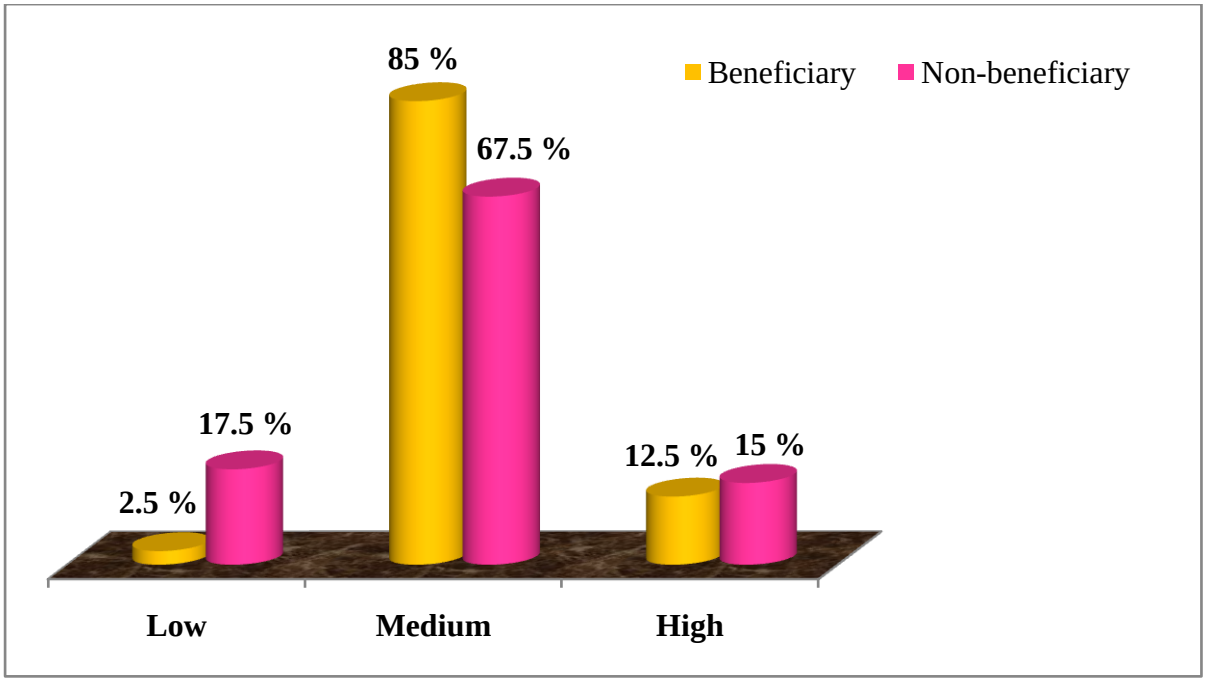

Fig.4.15: Distribution of beneficiaries according to change in employment generation

The Z value of beneficiaries and non-beneficiaries was found highly significant at 0.01 level of probability.

It revealed that beneficiaries get more annual income due to sericulture enterprise and able to save the money.

4.2.4 Change in employment generation

Employment generation refers to the additional employment days gained by the respondents. Distribution of respondents according to extension contact is given in Table 4.15 and graphically represented in Fig.4.15.

Table 4.15: Distribution of beneficiaries according to change in employment generation

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)		Z value
		F	%		F	%	
1	Low (upto 351)	01	02.50	Low (upto 231)	07	17.50	**5.05 ****
2	Medium (352 - 589)	34	85.00	Medium (232 -450)	27	67.50	
3	High (590 & above)	05	12.50	High (451 & above)	06	15.00	
	Total	**40**	**100**		**40**	**100**	
	Mean	**470.25**			**341.00**		
	S.D.	**119.001**			**109.539**		

From Table 4.15, it was observed that majority of beneficiaries 85.00 per cent had medium employment generation, followed by 12.50 per cent had high employment generation and remaining 02.50 per cent had low employment generation.

Whereas, majority of non-beneficiaries 67.50 per cent had medium employment generation, followed by 17.50 per cent had low employment generation and remaining 15.00 per cent had high employment generation.

The Z value of beneficiaries and non-beneficiaries was found highly significant at 0.01 level of probability.

It revealed that employment generation is one of the major potentials of sericulture.

4.2.5 Change in material possession

Material possession refers to the things or assets owned by the respondents. Schedule was developed for the measurement of material possession.

Distribution of respondents according to extension contact is given in Table 4.16 and graphically represented in Fig.4.16.

Table 4.16: Distribution of beneficiaries according to change in material possession

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)		Z value
		F	%		F	%	
1	Low (upto 6)	06	15.00	Low (upto 6)	13	32.50	**1.72 NS**
2	Medium (7-9)	21	52.50	Medium (7-9)	24	60.00	
3	High (10 & above)	13	32.50	High (10 & above)	03	07.50	
	Total	**40**	**100**		**40**	**100**	
	Mean	**7.90**			**7.37**		
	S.D.	**1.373**			**1.352**		

From Table 4.16, it was observed that majority of beneficiaries (52.50 %) had medium material possession change categories, followed by 32.50 per cent had high material possession change categories and 15.00 per cent had low material possession change categories.

Whereas, majority 60.00 per cent of non-beneficiaries had medium material possession change categories, followed by 32.50 per cent had low material possession change categories and remaining 7.50 per cent had high material possession change categories.

The Z value of beneficiaries and non-beneficiaries was found non-significant at 0.01 level of probability.

4.2.6 Overall impact

Distribution of respondents according to extension contact is given in Table 4.17 and graphically represented in Fig.4.17.

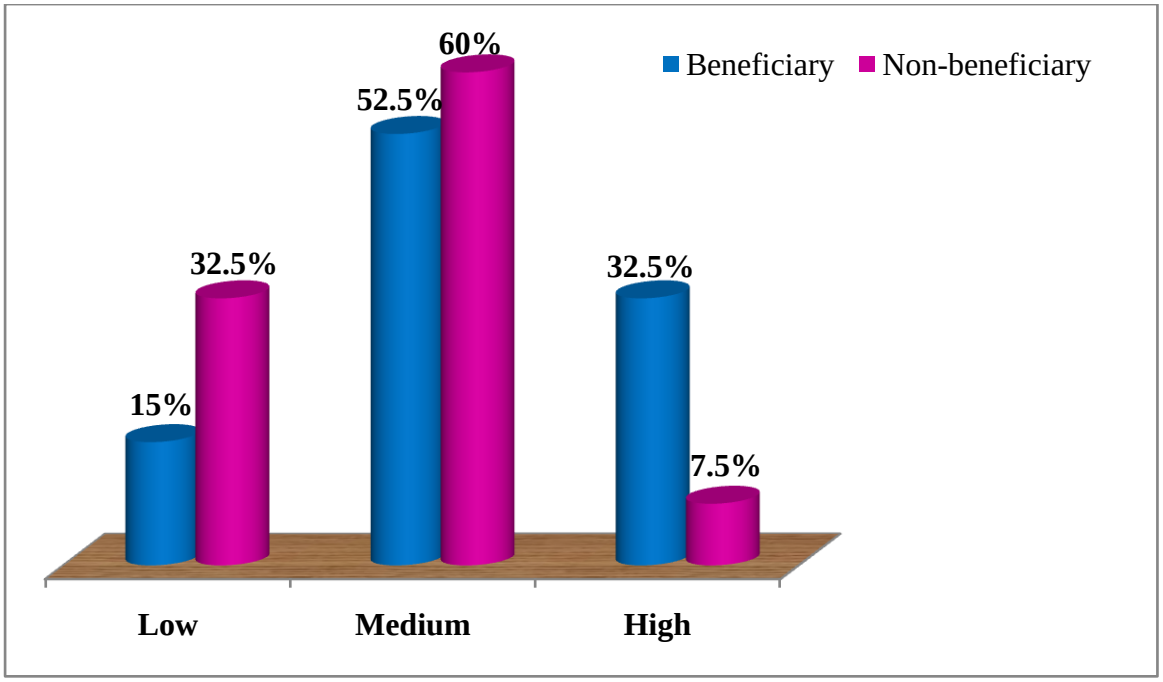

Fig.4.16: Distribution of beneficiaries according to change in material possession

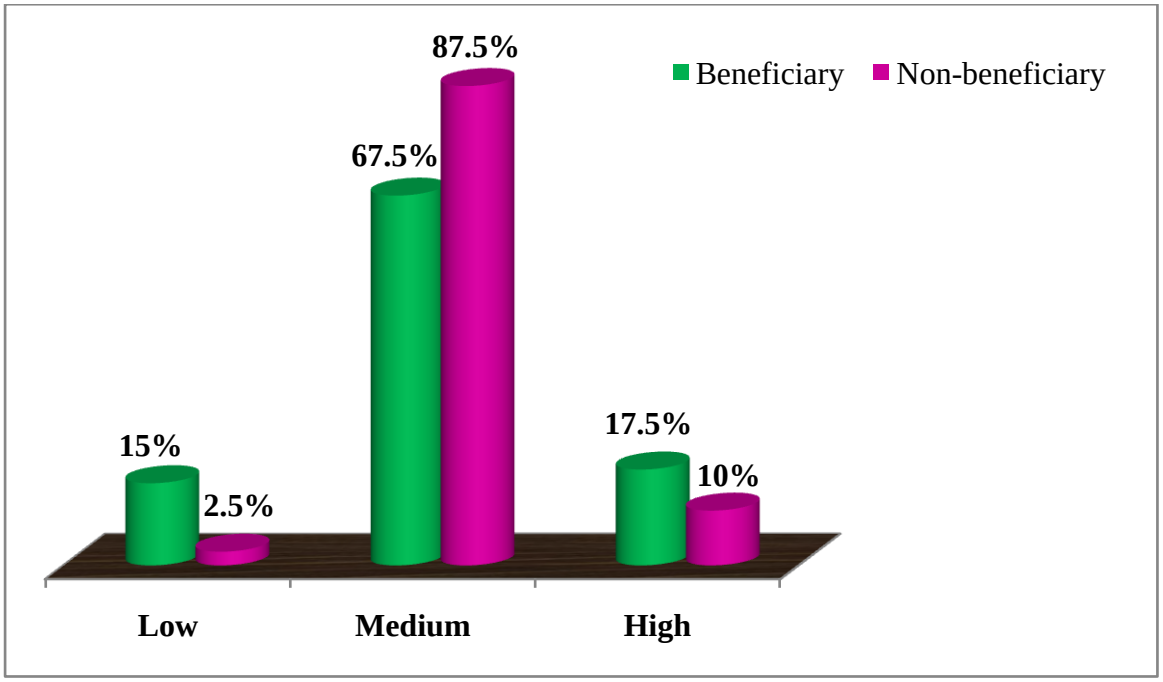

Fig.4.17: Distribution of respondents according to overall impact of sericulture enterprise

Table 4.17: Distribution of respondents according to overall impact of sericulture enterprise

Sr. No.	Category	Beneficiary (n=40)		Category	Non-beneficiary (n=40)		Z value
		F	%		F	%	
1	Low (upto 3,72,636)	06	15.00	Low(upto 1,13,060)	01	2.50	12.37**
2	Medium (3,72,637- 6,48,857)	27	67.50	Medium (1,13,061 -2,78,344)	35	87.50	
3	High (6,48,858 & above)	07	17.50	High (2,78,345 & above)	04	10.00	
	Total	**40**	**100**		**40**	**100**	

From Table 4.17, it was observed that majority 67.50 per cent of beneficiaries were in medium change categories, 17.50 per cent beneficiaries were in high change categories and remaining 15.00 per cent beneficiaries were in low change categories.

Whereas, 87.50 per cent non-beneficiaries were in medium change categories, 10.00 per cent non-beneficiaries were in high change categories and remaining 2.50 per cent were in low change categories.

The Z value for overall impact of beneficiaries and non-beneficiaries was found highly significant at 0.01 level of probability.

The reason might be that significant change in education, annual income, saving pattern and employment generation due to sericulture enterprise on its beneficiaries as compared to non-beneficiaries.

4.3 Relationship between profile of beneficiaries with impact of sericulture enterprise

Table 4.18: Relationship between profile of the respondents with impact of sericulture enterprise

Sr. No.	Independent variables	Correlation coefficient (r)
1	Age	0.283 NS
2	Education	-0.0447 NS
3	Family type	0.397**
4	Family size	0.395**
5	Annual income	0.837**
6	Experience	0.402**
7	Land holding	0.373*
8	Social participation	0.396**
9	Extension contact	0.406**
10	Risk orientation	0.438**
11	Number of training	0.423**

* Significant at 0.05 level of probability ** Significant at 0.01 level of probability

4.3.1 Age with impact

Table 4.18 revealed that there was non-significant relationship between age of beneficiaries and impact. It shows that increasing age of beneficiaries does not influence the impact on beneficiaries. So, there is no relationship between age and impact.

These findings were supported by the findings of Todmal (2012), Adsul (2016) and Kale (2020).

4.3.2 Education with impact

Table 4.18 revealed that there was negative non-significant relationship between education and impact. It means that education could not establish any relationship with impact.

To start sericulture enterprise respondent needs training to run it in well manner. So, training programmes, demonstrations help illiterate people to understand all skills that might be equivalent to literate people. Hence, education could not establish any relationship with impact. The findings were similar with Kale (2020).

4.3.3 Type of family with impact

Table 4.18 concluded that relationship between type of family with impact was positive and highly significant.

Day by day an individual has influenced by the nuclear family which had less requirements and can fulfill it within time. So that individual can focus on sericulture. The findings were supported by Bhandari (2014) and Dhulgand (2016).

4.3.4 Size of family with impact

From Table 4.18 it is evident that there was positive and highly significant relationship between size of family and impact.

It shows that larger the family size, higher the impact. The reason may be that the larger family meets the requirement of labourers to perform work in time. The findings were supported by Todmal (2012), Bhandari (2014) and Supe (2017).

4.3.5 Annual income with impact

Table 4.18 revealed that relationship between annual income and impact was positive highly significant.

It indicates that increase in annual income leads to increase in impact. Sericulture beneficiaries with high income had strong background and capable to purchase costly inputs and can bear the risk due to losses. The findings were supported by Kale (2012), Todmal (2012), Bhandari (2014) and Adsul (2016).

4.3.6 Farming experience with impact

Table 4.18 concluded that relationship between experience with impact was highly significant. The findings were similar with Todmal (2012), Supe (2017) and Kale (2020).

4.3.7 Land holding with impact

From Table 4.18 it is seen that land holding and impact had positive significant relationship.

It indicates that impact influence the land holding of the beneficiaries. Beneficiaries with more land holding will be willing to acquire more information regarding different sericulture activities in order to earn more income. Findings were similar with Todmal (2012).

4.3.8 Social participation with impact

Table 4.18 revealed that there was a positive and highly significant relationship between social participation and impact.

It shows that increase interaction of beneficiaries with different social institutions increases impact which increases awareness and create interest to adopt new technologies regarding sericulture. The findings were supported by Kale (2012), Bhandari (2014) and Adsul (2016).

4.3.9 Extension contact with impact

Relationship between extension contact and impact was positive highly significant which is observed from the Table 4.18.

It indicates that as extension contact increases, it adds knowledge and helps in marketing and production technologies which increase impact on beneficiaries.

The findings were supported by Adsul (2016), Dhulgand (2016), Supe (2017) and Chopde (2019).

4.3.10. Risk orientation with impact

Table 4.18 revealed that relationship between risk orientation and impact was positive and highly significant.

Reason for this might be that beneficiaries with more risk preference are willing to take risk and ready to face the challenges to earn maximum return.

The findings were supported by Salunkhe (2015), Supe (2017) and Kale (2020).

4.3.11 Number of training with impact

From Table 4.18 it is evident that relationship between number of training and impact was positive highly significant.

It indicates that training received by beneficiaries had created more positive impact; helps the beneficiaries to improve skills and add something to previous knowledge with respect to enterprise, which helps to earn more profit.

The findings are supported by Todmal (2012) and Kale (2020).

4.4 Problems faced by the beneficiaries in their enterprise and to invite their suggestions

Table 4.19: Constraints faced by the beneficiaries

Sr. No.	Constraints	(n = 40)	
		Frequency	Percentage
1	High cost of inputs required for sericulture.	33	82.50
2	Lack of skilled labours at village level.	32	80.00
3	Lack of transportation facilities.	28	70.00
4	Greater distance for selling of cocoons to market.	30	75.00
5	Decrease in cocoon production due to disease.	35	87.50
6	Less guidance from experts.	23	57.50
7	Timely unavailability of fertilizers and pesticides.	22	55.00

Table 4.19 showed that majority of respondents (87.50 %) had constraints regarding decrease in cocoon production due to diseases, 82.50 per cent had constraints about high cost of production, 80.00 per cent of them were expressed constraints regarding lack of skilled labours, and 75.00 per cent of them faced the problem regarding greater distance to market. Whereas, 70.00 per cent of beneficiaries were had constraints regarding transportation facilities, 57.50 per cent beneficiaries had constraints regarding less guidance from the experts while 55.00 per cent beneficiaries had constraints regarding timely unavailability of fertilizers and pesticides.

Table 4.20: Suggestions of the respondents to overcome the constraints

Sr. No.	Suggestions	(n=40)	
		Frequency	Percentage
1	Establishment of training center at Tehsil level.	38	95.00
2	Subsidy should be provided in the form of amount and materials by the Government such as Karnataka state.	33	82.50
3	Establishment of godowns for storage of cocoons.	36	90.00
4	Awareness campaign for sericulture enterprise should be made strong by MGNREGA.	35	87.50
5	Establishment thread manufacturing center at District level.	40	100
6	Government sericulture department should motive women groups to start sericulture enterprise.	37	92.50

Table 4.20 revealed that cent per cent of beneficiaries had suggestion to establish thread manufacturing center at District level, followed by 95.00 per cent of

them suggested to establish training center at Tehsil level, 92.50 per cent of them were suggested that Government should motivate women group to start sericulture, 90.00 per cent beneficiaries had suggestion to establish godowns for storage of goods, 87.50 per cent of them were suggested to create awareness campaign and 82.50 per cent beneficiaries had suggestion of subsidy provision in the form of amount and material.

CHAPTER – V

SUMMARY AND CONCLUSIONS

CHAPTER-V

SUMMARY AND CONCLUSIONS

Sericulture required low investment, it returns more profit. As compared to other agricultural allied enterprise, it provides an opportunity to increase rural employment and to improve living standards of rural people. So, the present study was taken to understand difference between socio-economic life of sericulturists and non-sericulturists by analyzing the impact of this enterprise on its beneficiaries.

Therefore, the present study entitled "Impact of Sericulture Enterprise on its Beneficiaries" was conducted with following objectives;

5.1 To study profile of the beneficiaries.

5.2 To study impact of the sericulture enterprise on its beneficiaries.

5.3 To delineate relationship between profile of beneficiaries with impact of sericulture enterprise.

5.4 To find out the problems faced by the beneficiaries in their enterprise and to invite their suggestions.

Ex-post-facto research design was used for the present study. One district was selected purposively for the current study. Two talukas were selected purposively from the selected district. Two villages from each talukas were selected on the basis of considerable number of sericulturists. 10 beneficiaries and 10 non-beneficiaries from each village, thus, total 80 respondents (40 beneficiaries and 40 non-beneficiaries) were selected.

5.1 Profile of the beneficiaries

Majority of the beneficiaries were belonged to middle age group, educated upto middle school level and having nuclear family. Majority of beneficiaries belonged to medium level category of family size, annual income (i.e.Rs.2,67,338/- to Rs.4,65,913/), farming experience (5-11 years), social participation, extension contact, risk orientation, received training and having small land holding.

In case of non-beneficiaries, majority of non-beneficiaries belonged to middle age group and were educated upto middle school level.

Majority of non-beneficiaries had nuclear family type, medium level category of family size, annual income (i.e.Rs.90,048/- to Rs.2,17,952/-), farming experience (i.e. 12-30 years), social participation, extension contact, risk orientation and having small land holding.

5.2 Impact of the sericulture enterprise on its beneficiaries

Majority of beneficiaries were capable to educate their children upto bachelors degree programme, change in annual income (i.e. from Rs.2,67,338 to Rs.4,65,913), change in annual saving pattern (i.e. Rs.99.756 to Rs. 1,87,745) and also change in employment generation (i.e. 352 to 589 days of employment) and material possession (i.e. 7 to 9 assets).The overall impact of sericulture on beneficiaries was medium.

Majority of non-beneficiaries were capable to educate their children upto bachelors, with change in annual income (i.e. from Rs. 90,049 to Rs. 2, 17,952) and change in annual saving pattern (i.e. saving of Rs. 20,269 to Rs. 62,432) with medium category of change in employment generation (i.e. from 232 to 450 days of employment) and medium category of change in material possession (i.e. 7 to 9 assets). The overall impact of non-beneficiaries was medium.

Annual income of the beneficiaries is higher as compared to non-beneficiaries and also change in annual income is more as compared to non-beneficiaries; it is due to change in annual income after starting the sericulture enterprise. Savings of beneficiaries is higher as compared to non-beneficiaries because of increase in annual income. Sericulture includes cultivation of Mulberry plants and rearing of silkworm which requires more labours that provides employment at large quantity as compared to regular farming, so, the change in employment generation of beneficiaries is higher as compared to non-beneficiaries. Similarly, material possession of sericulture beneficiaries is increased more as compared to non-beneficiaries. Hence, due to sericulture enterprise, the socio-economic status of the beneficiaries was improved as compared to non-beneficiaries.

5.3 Relationship between profile of beneficiaries with impact of sericulture enterprise

Age had positive non-significant relationship with impact, education had negative non-significant relationship, and land holding had positive significant relationship. While type of family, size of family, annual income, experience in sericulture, social participation, extension contact, risk orientation and number of training had positive highly significant relationship.

5.4 Problems faced by the beneficiaries in their enterprise and to invite their suggestions to overcome these problems

It was observed that majority of respondents i.e. 87.50 per cent had constraints regarding decrease in cocoon production due to disease, 82.50 per cent regarding high cost of production, 80.00 per cent regarding lack of skilled labours, 75.00 per cent regarding greater distance to market. 70.00 per cent regarding transportation facilities, 57.50 per cent beneficiaries had constraints regarding less guidance from the experts while 55.00 per cent beneficiaries had constraints regarding timely unavailability of fertilizers and pesticides.

5.5 Suggestions of the respondents to overcome the constraints

It was seen that majority 100 per cent of beneficiaries had suggestion to establish thread manufacturing center at District level, followed by 95.00 per cent to establish guidance center at Tehsil level. 92.50 per cent of them were suggested that Government should motivate women group to start sericulture. 90.00 per cent beneficiaries had suggestion to establish godowns for storage of goods, 87.50 per cent regarding to create awareness campaign and 82.50 per cent beneficiaries had suggestion that subsidy should be provided in the form of amount and material.

5.6 Implications

An implication refers to a possible future effect or result or something that is implied.

1. The present study implied the profile of the respondents with impact of sericulture enterprise. Majority of beneficiaries were educated up to middle and high school, having medium level of annual income, farming

experience, and risk orientation. So those farmers having such type of profile should be selected by Government, Department of Agriculture and Department of Sericulture as beneficiaries.

2. Sericulture is an important labour intensive agro-based industry, provides attractive incomes to small and marginal farmers in particular to improve their standard of living. It provides full time employment to farmer's family offering better high income opportunities. So, Government should made provision of subsidy for cocoon production and marketing also.
3. Sericulture is the unique enterprise that provides gainful employment to members of all age groups (childhood to old age). However, the basic requirement is irrigation that leads to better production of green leaves of Mulberry.
4. State Agriculture Department should arrange awareness campaign regarding sericulture and should widely publish the success stories of successful entrepreneur which motivate marginal and small farmers to adopt sericulture enterprise.
5. In Karnataka if price of 1 kg silk is less than Rs.300/-, the state gives Rs.50/- as subsidy. Maharashtra state should also implement such type of subsidy programmes which helps to increase the employment generation and income of farmer. Cocoon market of Karnataka state is more popular in India due to many marketing facilities; such type of market should be developed in the Marathwada region.
6. The sericulture industry is highly suitable for rural women because of the nature of activities being carried out at their homesteads or nearly homesteads. The policy makers may think of formation of women groups of sericulture enterprise in the villages.

5.7 Future line of work

1. The present study was conducted in Marathwada region which covers small area. Similar studies should be conducted on large area in future, so that results can be generalized to a greater extent.
2. Government should made sericulture as multidimensional approach so that small farmers can become more prone to accept and establish sericulture enterprise.
3. Impact evaluation helps to determine the improvement in earnings and socio-economic status of beneficiaries so research should be conducted in future by giving more emphasis on economic point of views.
4. The study included limited number of independent variables and limited number of impact parameters. Further future studies may be planned with more independent variables and include other relevant parameters of impact analysis.

LITERATURE CITED

LITERATURE CITED

Adsul, G. B. (2016). *Socio-economic impact of national horticulture mission on its beneficiaries in Marathwada region (Doctoral dissertation*). Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from – https://krishikosh.egranth.ac.in/handle/1/5810050417. Accessed on: January 24, 2021.

Ahire, M. C., Gawande, R. P. & Patil, S. D. (2009). *Extent of use of mass media by cotton growers. Interaction*, *27*(2), 41-48. Retrieved from - https://www.indianjournals.com/ijor.aspx?target=ijor:jcs1&volume=27&issue=2&article=008. Accessed on: June 17, 2020.

Ahire, R. D. (2000). *A Study on the Consequences of Watershed Development Programme* (*Doctoral Dissertation)*. Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810026554. Accessed on: June 17, 2020.

Ahire, R. D. & Kapse, P. S. (2017). S*ocio-economic impact of National Initiative on Climate Resilient, Agriculture (NICRA) Project on its beneficiaries*. AGRESCO 2016-2017.

Al Karim, R. (2019). Impact of different training and development programs on employee performance in Bangladesh perspective. *International Journal of Entrepreneurial Research*, *2*(1), 8-14. Retrieved from – https://www.readersinsight.net/IJER/article/view/497. Accessed on: November 12, 2020.

Anonymous, (2020). Central Silk Board – Ministry of Textiles, Note on Sericulture CSB 2019-20. Retrieved from- http://texmin.nic.in/sites/default/files/Note%20on%20Seri%20CSB%202019%2020%203rd%20qtr_0.pdf . Accessed on: January 4, 2021.

Anonymous, (2021). Agriculture in India - statistics & facts, Published by Statista Research Department, Jan 8, 2021. Retrieved from - https://www.statista.com/topics/4868/agricultural-sector-in-india. Accessed on: January 15, 2021.

Argade, S. D. (2010). *A Study on National Rural Employment Guarantee Scheme in Thane district of Maharashtra (Doctoral Dissertation).* Acharya N.G. Ranga Agricultural University, Rajendranagar, Hyderabad. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/74713. Accessed on: September 13, 2020.

Babar, J. S. (2012). Impact of Agricultural Technology Information Centre on Beneficiaries in Akola District *(Doctoral Dissertation).* Dr.Panjabrao Deshmukh Krishi Vidyapeeth, Akola, (Maharashtra). Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810127035. Accessed on: March 20, 2020.

Badodiya, S. K., Kushwah, R. S., Garg, S. K. & Shakya, S. K. (2011). Impact of Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) on poverty alleviation. *Rajasthan Journal of Extension Education*, (19), 206-209. Retrieved on - http://www.rseeudaipur.org/wp-content/uploads/2013/02/471.pdf. Accessed on: February 19, 2020.

Badodiya, S. K., Tomar, S., Patel, M. M. & Daipuria, O. P. (2012). *Impact of Swarnajayanti Gram Swarozgar Yojana on Poverty Alleviation.* Age, 83, 27-67. Retrieved from - https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1062.4463&rep=rep1&type=pdf. Accessed on: February 22, 2020.

Badodiya, S. K., Yadav, M. K., Daipuria, O. P. & Chauhan, S. V. (2011). Impact of training programmes on adoption of organic farming practices. *Indian Research Journal of Extension Education*, 11(2), 42-45. Retrieved from -

https://www.cabdirect.org/cabdirect/abstract/20113313530. Accessed on: April 24, 2020.

Bansode, S. M., Ankush, G. S., Mande, J. V. & Suradkar, D. D. (2013). Impact of SHG on socio-economic development of their members. *Journal of Community Mobilization and Sustainable Development*, 8(1), 117-120. Retrieved from https:// www.indianjournals.com/ijor.aspx?target=ijor:jcmsd&volume=8&issue=1&article=023 . Accessed on: May 16, 2020.

Bhagyalaxmi, K., GopalakrishnaRao, V. & Sudarshan Reddy, M. (2003). Profile of the rural women micro-entrepreneurs. *Journal of Research*, Acharya N. G. Ranga Agricultural University, Hyderabad, 31(4): 51-54. Accessed on: October 11, 2020.

Bhandari, S. D. (2014). *Socio Economic Impact of Mahatma Gandhi National Rural Employment Guarantee Act on Beneficiaries (Master's Thesis)*. Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani (Maharashtra).Retrieved from- https://krishikosh.egranth.ac.in/displaybitstream?handle=1/5810050506&fileid=923a6c05-4e6a-416d-9a01-6355aa9985d3. Accessed on: January 12, 2021.

Chapke, R. R., Bhagwat, V. R. & Patil, J. V. (2015). *Impact of National Training on Sorghum Cultivation for value addition.* Retrieved from- https://krishi.icar.gov.in/jspui/handle/123456789/9111. Accessed on: March 22, 2021.

Chaudhari, J. K., Patel, B. S. & Parikh, A. H. (2015). Impact of Krishi Vigyan Kendra on knowledge of farmers about improved agricultural technologies of wheat crop. *Gujrat Journal of Extension Education, 26*(1), 30-32. Retrieved from- https://www.gjoee.org/papers/Volume_26_1.pdf#page=44. Accessed on: November 15, 2021.

Chauhan, S. K. (2013). Documentation and Impact Study of Sericulture Development Programmes in Himachal Pradesh. *Research Publication*, (67). Retrieved from- http://www.hillagric.ac.in/edu/coa/AgriEcoExtEduRSocio/Project%20Reports/DOCUMENTATION%20AND%20IMPACT%20STUDY%20OF%20SERICULTURE%20DEVELOPMENT%20PROGRAMMES%20IN%20HIMACHAL%20PRADESH.pdf. Accessed on: August 9, 2020.

Chauhan, S. K. & Chouhan, S. (2014). Impact of sericulture development project in district Bilaspur of Himachal Pradesh. *Himachal Journal of Agricultural Research*, *40*(2), 141-149. Retrieved from- http://hjar.org/index.php/hjar/article/view/127348. Accessed on: April 7, 2020.

Chauhan, N. M., Patel, V. & Patel, N. (2015). Self-Help Groups (SHGs), a Boon for Rural Women Empowerment. *International Journal in Management & Social Science*, *3*(6),13-21. Retrieved from- https://www.indianjournals.com/ijor.aspx?target=ijor:ijmss&volume=3&issue=6&article=002 . Accessed on: September 8, 2020.

Chavhan, P. N. (2019). *Impact of mobile based agro advisory services by state department of agriculture in Marathwada region (Doctoral Dissertation)*. Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810093565. Accessed on: October 5, 2020.

Chikane, S. R. (2018). *Entrepreneurial behaviour of self help group members (Doctoral Dissertation)*. Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810074249. Accessed on: November 16, 2020.

Chole, R. R. & Fatak, U. N. (2007).Empowerment of rural women through SHGs engaged in Agro based enterprises. *Agresco Report*, MAU, Parbhani, pp:-15, 2007.Retrieved from-

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Chole+and+Fatak+%282007%29+&btnG= . Accessed on: December 10, 2020.

Chopade, S. L. (2019). *Impact analysis of farmer producer company on its members (Masters Thesis).* Vasantrao Naik Marathwada Krishi Vidapeeth, Parbhani. Accessed on: 14 July, 2020.

Deshmukh, R. H. (2014). *Knowledge and adoption of improved cultivation practices of kharif jowar by farmers in Nanded district (Doctoral Dissertation).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810050507. Accessed on: August 6, 2020.

Dhane, V. P. & Dhane, A. V. (2004). Constraints faced by the farmers in mulberry cultivation and silk-worm rearing. *Indian Journal of Sericulture*, *43*(2), 155-159.

Dhulgand, V. G. (2016). *Socio-economic impact of Mahatma Gandhi National Rural Employment Guarantee Act on its beneficiaries in Marathwada region (Doctoral Dissertation).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani.

Editorial. (2020, December 29). Increasing Graph of Sericulture. *Sakal Agrowon*, page no. 7.

Ekhande, Y. S. (2016). *Entrepreneurial behaviour of sweet orange growers in Marathwada region (Doctoral Dissertation)*. Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810051369 . Accessed on: September 14, 2020.

Hadimani, D. K., Manjunath & Moulasab, J. A. (2017). An Impact Study on Sericulture Production Technologies by the Farmers of Bidar District in Hyderabad. *International Journal of Current Microbiology and Applied Sci*ences, 6 (11).

Hiwarkar, G. R. (2011). *Impact of training programme on scaling up of water productivity in agriculture (Doctoral Dissertation).* Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, (Maharashtra). Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810126868. Accessed on: July 15, 2020.

Ingole, S. A. (2014). *Impact of farm ponds in saline tract of Western Vidarbha (Master's Thesis).* Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (Maharashtra).

Jadhav A. R. (2018). *Socio-economic Psychological and situational causes of Farmers Suicides in Osmanabad district (Master's Thesis).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani (Maharashtra).

Jakkawad, S. R., Patange, N. R. & Ahire, R. D. (2019). Adoption of sericultural practices by the sericulturists. *Journal of Entomology and Zoology Studies* 2019; 7(3):1363-1366. Retrieved from - https://www.entomoljournal.com/archives/2019/vol7issue3/PartW/7-3-141-214.pdf . Accessed on: February 18, 2020.

Kale, M. G. (2012). *Impact of Swarnajayanti Gram Swarozgar Yojana on socio-economic conditions of beneficiaries (Doctoral Dissertation).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810051079. Accessed on: April 12, 2020.

Kale, N. D. (2020). *Impact of national agricultural innovation project on its beneficiaries in marathwada region (Doctoral Dissertation).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani (Maharashtra).

Kalsariya, B. N., Bharad, N. D. & Jadeja, M. K. (2015). Impact of training programme in terms of gain in knowledge for sustainable agriculture. *Gujrat Journal of Extension Education*, *26*(2), 154-157. Retrieved from- https://www.gjoee.org/papers/110.pdf . Accessed on: February 20, 2021.

Kerlinger (1976). Kerlinger's Research Myths: An Overview with Implications for Educational Researchers. *The Journal of Experimental Education.*Vol. 65, No.2, pp.101-112. Retrieved from- https://www.jstor.org/stable/20152511. Accessed on: February 15, 2020.

Khandave, S. R. & Suryawanshi P. S. (2015). Impact of National Horticulture Mission on beneficiaries. *Journal of Agriulture Research and Technology*, 2015. Accessed on: February 12, 2020.

Konings, J. & Vanormelingen, S. (2015). The impact of training on productivity and wages: firm-level evidence. *Review of Economics and Statistics, 97*(2), 485-497. Retrieved from- https://direct.mit.edu/rest/article/97/2/485/58224/The-Impact-of-Training-on-Productivity-and-Wages . Accessed on: March 25, 2021.

Kore, I. V. (2005). *Economic impact of self help group on its members (Master's Thesis) (Unpub.).* Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola.Retrieved from- https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Kore%2C+I.+V.+%282005%29.+&btnG= . Accessed on: February 27, 2021.

Lad, A. S. (2013). *Knowledge and adoption of recommended package of practices of green gram (Doctoral dissertation).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810056013. Accessed on: February 3, 2021.

Maaly Mefleh Mohammed Al-Mzary, Abedallah (Mohammad Hani) D.A Al-rifai & Mohammed Omer Eid Al- Momany (2015). Training and Its Impact on the

Performance of Employees at Jordanian Universities from the Perspective of Employees: The Case of Yarmouk University. *Journal of Education and Practice, 6*(32), 128-140. Retrieved from- https://eric.ed.gov/?id=EJ1083504 . Accessed on: April 2, 2021.

Mankar, D. M., Wankhade, P. P. & Shambharkar, Y. B. (2013). Impact of National Horticulture Mission on its beneficiaries. *International Journal of Extension Education, 9,* 72-80.

Mankar, D. M., Wankhede, P. P. & Kale, N. M. (2014). Socio-economic impact of improved Soybean technology on farmers. *International Journal of Extension Education,* 10, 146-152.

Maraddi, G. N. & Moulasab (2015). Knowledge domain of respondents about ICM based IFS programmes in Raichur district. *International Journal in Management and Social Science.* 3, 1784 - 2321.

Meenakshi, K. (2014). *Socio-economic impact of labour migration on the families left behind in Golaghat district of Assam (Doctoral Dissertation).* Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, (Maharashtra). Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810131380 . Accessed on: March 12, 2021.

Raju, M., Sannappa, B. & Manjunath, K.G. (2019). Socio Economic Status of Sericulture Farmers under rainfed condition in Chamarajanagar district, Karnataka State. *International Journal Pure Applied Bio science*. 7(2), 574-581.

Muniswamy Reddy P. M., Gupta V. P. & Sanjay Hansda (2014). A Case Study: Impact of Training on Knowledge Level of Different Types of Participants. *International Journal of Science and Research (IJSR),* Volume 3 Issue 6, June 2014, 2114 – 2118. Retrieved from- https://www.ijsr.net/search_index_results_paperid.php?id=2014573. Accessed on: March 15, 2021.

Muthulakshmi, B. & Rajkumar Josmee Singh (2018). Socio Economic and Psychological Profile of Farmers with Reference to Climate Change in Western Agro Climatic Zone of kTamilnadu. *International Journal of Current Microbiology and Applied Science.* Volume 7 November 11, ISSN: 2319-7706. Retrieved from-https://scholar.google.com/scholar?q=Muthulakshmi,+B.+and+Rajkumar+Josmee+Singh+(2018).+Socio+Economic+and+Psychological+Profile+of+Farmers+with+Reference+to+Climate+Change+in+Western+Agro+Climatic+Zone+of+Tamilnadu+.+International+Journal+of+Current+Microbiology+and+Applied+Sciences,+Volume+&hl=en&as_sdt=0,5. Accessed on: March 18, 2021.

Nadre, K. R. (2000). A study on constraints in adoption of recommended practices of cotton in Aurangabad and Jalna districts. *Manage Extension Research Review*, 66-73. Retrieved from-https://scholar.google.com/scholar?q=Muthulakshmi,+B.+and+Rajkumar+Josmee+Singh+(2018).+Socio+Economic+and+Psychological+Profile+of+Farmers+with+Reference+to+Climate+Change+in+Western+Agro+Climatic+Zone+of+Tamilnadu+.+International+Journal+of+Current+Microbiology+and+Applied+Sciences,+Volume+&hl=en&as_sdt=0,5 . Accessed on: February 5, 2021.

Nargawe, L. (2017). *Impact assessment of Kisan Mobile Advisory Services (KMAS) in Barwani district of Madhya Pradesh (Doctoral dissertation).* RVSKVV, Gwalior (MP). Retrieved from-https://scholar.google.com/scholar?q=Nadre,+K.+R.+(2000).+A+study+on+constraints+in+adoption+of+recommended+practices+of+cotton+in+Aurangabad+and+Jalna+districts.+Manage+Extension+Research+Review,+66-73.&hl=en&as_sdt=0,5. Accessed on: February 7, 2021.

Nirban, A. J. (2004). *Analysis of Agricultural Produce Market Committees in Konkan and Western Maharashtra with reference to their potential role in*

Agriculture Marketing Extension (Doctoral Dissertation). Mahatma Phule Krishi Vidyapeeth, Rahuri.

Padiyar, K. (2017). *Impact of Front Line Demonstration on Knowledge and Adoption Level among Green Gram Growers in Dewas District (MP) (Doctoral dissertation).* RVSKVV, Gwalior (MP). Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810031318. Accessed on: March 13, 2021.

Parate, M. B. (2014). *Impact of farm ponds on its beneficiaries In Yavatmal District (Doctoral Dissertation).* Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, (Maharashtra). Retrieved from - https://krishikosh.egranth.ac.in/handle/1/5810131313. Accessed on: April 7, 2021.

Patil, S. S. (2010). *Management Practices Followed by Sericulturists in Southern Karnataka (Master's Thesis) (unpublished).* Mahatma Phule Krishi Vidyapeeth, Rahuri.

Patil, V. S. & Wangikar, S. D. (2007). *Analysis of economic empowerment of rural women through self-help groups (SHGs) in Parbhani district (Doctoral dissertation).* Vasantrao Naik Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810092505 . Accessed on: February 23, 2021.

Pise, G. K. (2017). *Impact of national innovations on climate resilient agriculture (nicra) project on beneficiaries (Master's Thesis).*Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810153089 . Accessed on: March 17, 2021.

Ramalakshmi, C. S. (2007). Participation of Tribal Women in Sericulture in Two Tribal Block of Raigarh District, Chhattisgarh, India. *Asian Journal of Agriculture & Life Sciences* Vol. 2(1), January 2017: 13-22, e-ISSN:

2455-6149. Retrievd from-https://www.researchgate.net/profile/Santosh-Dewangan/publication/320934327_Participation_of_Tribal_Women_in_Sericulture_in_Two_Tribal_Block_of_Raigarh_District_Chhattisgarh_India/links/5a03473b4585158bad1d9620/Participation-of-Tribal-Women-in-Sericulture-in-Two-Tribal-Block-of-Raigarh-District-Chhattisgarh-India.pdf . Accessed on: February 23, 2021.

Rathod, M. K. & Pawar, A. S. (2014). Study of Socio Economic Condition of Deceased Farmers and Post Suicidal Consequences Over Their Families. *International Journal of Extension Education*, 10; 93-98.

Rathod, T. P., Rathod, M. K. & Nagrale, S. S. (2014). *Impact of Watershed Development Programme on Developmental Parameters of Farmers* (*Master's Thesis).* College of Agriculture, Nagpur, Panjabrao Deshmukh Krishi Vidyapeeth, Akola. Retrieved from-https://www.krishisanskriti.org/vol_image/21Aug201511081220.pdf. Accessed on: March 5, 2021.

Raut, M. A. (2018). *Attitude of Beneficiaries Towards Mahatma Gandhi National Rural Employment Guarantee Act (Master's Thesis).* Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra. Retrieved from-https://krishikosh.egranth.ac.in/handle/1/5810117614. Accessed on: March 5, 2021.

Sable, B. D. (2012). *Adoption gap IPM technology of cotton (Doctoral dissertation).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810054554. Accessed on: February 25, 2021.

Salunkhe, S. S. (2015). *Impact of vocational training programme on trainees of Krishi Vigyan Kendra (Master's thesis).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani.

Sawandkar, D. N. (2012). *Impact of integrated child development services (ICDS) scheme on beneficiaries in Parbhani district (Doctoral dissertation).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810054548. Accessed on: February 27, 2021.

Sawant, P. A. (1999). *An experimental study on the effectiveness of different modes of presentation of information on mushroom cultivation through television (Doctoral Dissertation).* University of Agricultural Sciences, Dharwad, Karnataka.

Sharma, N. & Kumar, S. (2016). Social Empowerment of Women through Self Help Groups: An Impact Assessment in District Hamirpur, Himachal Pradesh. *Indian Research Journal of Extension Education, 15*(4), 78-84.

Sharma, P. & Badodiya, S. K. (2016). Impact of participation of rural women in agriculture activities. *Indian Research Journal of Extension Education*, *16*(2), 12-14.Retrieved from- https://www.cabdirect.org/cabdirect/abstract/20173281377. Accessed on: February 23, 2021.

Shewale, A. S. (2017). *Entrepreneurial attributes of nursery owners in Marathwada region (Doctoral dissertation).* Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810034134. Accessed on: March 6, 2021.

Shinde, J. (January-2017). *Reshim Udyog*. Makhmalabad naka, Panchvati, Nashik-3: Godavari Publication.

Singh, S. B. & Prakash, N. (2016). Socio-economic impact of watershed development project in Manipur. *Indian Research Journal of Extension Education*, *10*(1), 78-82.

Supe, D. V. (2017). *Impact of farm pond on its beneficiaries in Marathwada region (Doctoral Dissertation)*. Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810033134. Accessed on: February 28, 2021.

Supe, S. V. (2007). Quantification of variables and various scales in Extension Education, New Delhi: *Jain brothers publishers.*

Tayde A. V. (2011). Impact of Watershed Development Programme on Its Beneficiaries (Master's Thesis). Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola.

Tayde, V. V. (2006). *Empowerment of rural women in Marathwada region of Maharashtra state (Doctoral dissertation).* Marathwada Agricultural University, Parbhani (Maharashtra). Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810016425. Accessed on: March 18, 2021.

Thorat, S. K. (2008). *Socio-Economic Development of women Member of Self Help Groups (Master's Thesis)*. Marathwada Krishi Vidyapeeth, Parbhani (Maharashtra). Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810091441. Accessed on: February 22, 2021.

Todmal, S. B. (2012). *Impact of Sericulture Production Technologies on the Socio-Biography of Beneficiaries (Doctoral Dissertation).* Mahatma Phule Krishi Vidyapeeth, Rahuri. Retrieved from- https://krishikosh.egranth.ac.in/handle/1/5810166511. Accessed on: February 22, 2021.

Todmal, S. B., Khalache, P. G., Gaikwad, J. H. & Jadhav, R. M. (2013). Study the profile and knowledge of the sericulturists about sericulture production technologies. *Agriculture Update*, 8(1/2), 278-282.

Vasumathi B. V., Somashekar T. H., Balasubrahmanya M. H. & Krishnaswamy K. N. (2004). An Analysis of the Transaction of Silk Cocoons in the Major Markets in Karnataka. *Indian Journal of Sericulture*, 43(1), 35-37.

Vijayaprakash, N. B. & Dandin, S. B. (2005). Yield gaps and constraints in bivoltine cocoon production in Mandya district of Karnataka-An economic analysis. *Indian Journal of Sericulture*, 44(1), 50-54.

Vishakanta & Venkateshappa K. S. (2019). Problems Faced by Sericulturists in the Cultivation of Mulberry and Rearing of Silkworms in Channapatana Taluka of Ramanagara District of Karnataka. *International Journal of Social Science and Economic Research.*Vol.4: 2455-8834.

Waghmare, G. S., Waghmode, Y. J. & Bhongale Radhika (2017). Existing cultivation practices followed by Turmeric Growers. *Bulletin of Environment, Pharmacology and Life Sciences* 6(2):309-314.

a) Wangikar, S. D. & Kadam, R. P. (2007). Constraints in adoption of dairy management practices. *Agriculture Update 2008 Vol.3 No.3/4 pp.395-397 ref.4.* Retrieved from-https://www.cabdirect.org/cabdirect/abstract/20093058795.

b) Wangikar, S. D. & Kadam, R. P. (2007). Training needs of the members of SHGs on dairy management practices. AGRESCO Report, pp. 16-33.

Yadav, N. (2013). Social status of women engaged in sericulture enterprise in Uttarakhand. *International Journal of Advanced Research in Management and Social Sciences*, 2(8), 95-103.

APPENDIX

APPENDIX

क्र.	

विस्तार शिक्षण विभाग कृषि महाविद्यालय,परभणी
वसंतराव नाईक मराठवाडा कृषि विद्यापीठ,परभणी.
मुलाखत प्रश्नावली

विषय : रेशीम उद्योगाचा त्यांच्या लाभार्थ्यांवर होणारा परिणाम

अभ्यासक : कु. जोशी रचना रेणुकादास मार्गदर्शक : डॉ.कापसे पी.एस.

रजि.क्र. : २०१९A/९०M ----------(सहायक प्राध्यापक)----------

भाग अ

अ) वैयक्तिक माहिती :

१) शेतकऱ्याचे नाव :

भ्रमणध्वनी क्रमांक :

२) गाव : तालुका : जिल्हा :

ब) पात्रता :

१) वय : वर्षे

२) शिक्षण :

अ.क्र.	**शिक्षणाचा प्रकार**	
१.	अशिक्षित	
२.	फ़क्त वाचू शकणारे	
३.	वाचू आणि लिहू शकणारे	
४.	प्राथमिक	
५.	माध्यमिक	
६.	उच्च माध्यमिक	
७.	पदवी	

३) कुटुंबाचा प्रकार : i) एकत्रित कुटुंब :

ii) विभक्त कुटुंब :

४) कुटुंबाचा आकार : पुरुष :

स्त्री :

मुले :

मुली :

एकूण सदस्य :

५) वार्षिक उत्पन्न : ----------रुपये------

६) रेशीम उद्योगातील /शेतीतील अनुभव : वर्षे

७) जमीनधारणा : एकूण क्षेत्र हेक्टर

८) सामाजिक सहभाग :

अ क्र	संस्था /संघटना	सदस्यत्व		सहभाग			सदस्यत्व		सहभाग		
		सभासद	पदाधिकारी	नेहमी	कधी कधी	कधी च नाही	सभासद	पदाधिकारी	नेहमी	कधी कधी	कधी च नाही
१.	ग्रामपंचायत										
२.	सहकारी पतसंस्था										
३.	शालेय समिती										
४.	शेतकरी संघटना										
५.	भजनी मंडळ										
६.	महिला संघटना										
७.	पंचायत समिती										
८.	जिल्हा परिषद										
९.	खरेदी विक्री मंडळ										
१०.	रेशीम कैंद्र										
११.	इतर										

९) विस्तार संपर्क :

अ क्र	विस्तार संपर्क	रेशीम शेती करणारे शेतकरी					रेशीम शेती न करणारे शेतकरी				
		जागरूकता		संपर्क			जागरूकता		संपर्क		
		हो	नाही	नेहमी	कधीकधी	कधीच नाही	हो	नाही	नेहमी	कधीकधी	कधीच नाही
१.	ग्रामसेवक										
२.	विस्तार अधिकारी										
३.	कृषी अधिकारी										
४.	गट विकास अधिकारी										
५.	विषय तज्ञ										
६	रेशीम शेती तज्ञ										
७.	इतर										

१०) जोखीम पत्करण्याची क्षमता :

अ क्र	विधान	रेशीम शेती करणारे शेतकरी					रेशीम शेती न करणारे शेतकरी				
		पूर्णपणे सहमत	सहमत	अनिश्चित	असहमत	पूर्णपणे असहमत	पूर्णपणे सहमत	सहमत	अनिश्चित	असहमत	पूर्णपणे असहमत
१.	शेतकऱ्याने कमी जोखीम असलेल्या थोड्याशा फायद्यात समाधानी राहण्यापेक्षा थोडी अधिक जोखीम पत्करून जास्त फायदा घेण्याचा प्रयत्न करावा .(+)										

२.	ज्या शेतकऱ्यांचा इतर शेतकऱ्यापेक्षा अधिक जोखीम घेण्याकडे कल असतो ते आर्थिकदृष्ट्या संपन्न होतात. (+)										
३.	जेव्हा शेतकऱ्याला जास्त यश मिळण्याची शक्यता असते तेव्हा त्याने अधिक जोखीम घेणे फायदेशीर ठरते.(+)										
४.	शेतकऱ्याने रेशीम शेतीत / शेतीत पूर्णपणे नवीन पद्धतीचा अवलंब करावा जेणेकरून ते फायद्याचे ठरते.(+)										
५.	मोठी जोखीम टाळण्यासाठी शेतकऱ्याने एक किवा दोन पिके घेण्यापेक्षा अधिक पिके घ्यावीत .(-)										
६.	इतर बहुतांश शेतकऱ्यांनी यशस्वीपणे नवीन पद्धतींचा वापर केल्यास शेतकऱ्यांने तिचा अवलंब करणे चांगले. (-)										

१) एकूण प्रशिक्षण संख्या :

भाग ब

रेशीम उद्योगाचा त्यांच्या लाभार्थ्यांवर होणारा परिणाम

१) शिक्षणावरील परिणाम :

अ.क्र.	शिक्षण	रेशीम शेती करणारे शेतकरी	रेशीम शेती न करणारे शेतकरी
१.	प्राथमिक		
२.	माध्यमिक		
३.	उच्च माध्यमिक		
४.	पदवी		
५.	पदव्युत्तर		
६.	आचार्य		
७.	इतर		

2) वार्षिक उत्पन्नावरील परिणाम : (रुपये)

अ.क्र.	उत्पन्नाचा स्त्रोत	रेशीम शेती करणारे शेतकरी	रेशीम शेती न करणारे शेतकरी
१.	शेती		
२.	रेशीम उद्योग		
३.	दुग्ध व्यवसाय		
४.	कुक्कुटपालन		
५.	नोकरी		
६.	मजुरी		
७.	इतर		

३) वार्षिक बचतीवरील परिणाम : (रुपये)

अ. क्र.	एकूणबचत(रुपये)	रेशीम शेती करणारे शेतकरी					रेशीम शेती न करणारे शेतकरी				
		घर	बँक	पो स्ट	वि मा	इतर	घर	बँक	पो स्ट	वि मा	इतर
१.	४००००१ व अधिक										
२.	३००००१ ते ४०००००										

३.	२००००१ ते३०००००										
४.	१००००१ ते २०००००										
५.	५०००१ ते १०००००										
६.	२५००१ ते ५००००										
७.	२५००० पर्यंत										

४) रोजगार निर्मितीवरील परिणाम : (दिवस)

अ.क्र.	रोजगार	रेशीम शेती करणारे शेतकरी	रेशीम शेती न करणारे शेतकरी
१.	स्वतः		
२.	कुटुंबातील सदस्य		
३.	भाडे तत्वावर घेतलेले इतर मजूर		
४.	एकूण		

५) मालमत्तेवरील परिणाम:

अ.क्र.	मालमत्ता	रेशीम शेती करणारे शेतकरी	रेशीम शेती न करणारे शेतकरी
१.	बैलगाडी		
२.	जनावरे		
३.	ट्रॅक्टर		
४.	सायकल		
५.	दुचाकी		
६.	चारचाकी		
७.	रेडीओ		
८.	मोबाईल		
९.	स्मार्टफोन		
१०.	टिव्ही		
११.	स्मार्टटिव्ही		
१२.	टेबल		
१३.	खुर्ची		
१४.	पलंग		
१५.	इतर		

भाग – क

रेशीम शेतकऱ्याना येणाऱ्या अडचणी :

१) अति उत्पादन खर्च

२) कुशल कामगारांची कमतरता

३) मालवाहतुकीची कमतरता

४) तुतीच्या सुधारित वाणाची कमतरता

५) रेशीम विक्रीसाठी बाजारपेठेचे जास्त अंतर

रेशीम शेतकऱ्याना येणाऱ्या अडचणीवर मात करण्यासाठी सूचना / शिफारसी :

१) शासनाच्या जास्तीत जास्त योजना रेशीम शेतकऱ्यांपर्यंत पोहोचल्या पाहिजे.

२) कुशल कामगार व माल वाहतुकीची सोय व्हायला पाहिजे .

३) स्थानिक बाजारपेठ विकसित करण्यात यावी .

४) जिल्हा पातळीवर कोश विक्री केंद्र उभारले पाहिजे .

५) रेशीम उद्योजक विकासासाठी जास्तीत जास्त वाव भेटला पाहिजे .

CURRICULUM VITAE

CURRICULUM VITAE

Full name of the candidate : **Joshi Rachana Renukadas**

Date of Birth : 04/07/1996

Nationality : Indian

Department : Extension Education

Permanent Address : Shriram Mandir Sansthan, Bhokar. Tq. Bhokar, Dist.Nanded.

Mobile No. : 7350885211

Email id : joshirr04@gmail.com

Title of the thesis : "Impact of Sericulture Enterprise on Its Beneficiaries"

Academic qualification

Course/ Degree	**Name of the College/Institute**	**University/Board**	**Year of Passing**	**Percentage (%)**	**Class/ Grade**
SSC	Shri Shahu Maharaj High School, Bhokar.	Latur Divisional Board	2012	72.60	First Class
HSC	Shri Shahu Maharaj High School, Bhokar.	Latur Divisional Board	2014	68.77	First Class
B.Sc. (Agri.)	College of Agriculture, Naigaon (Bz).	Vasantrao Naik Marathwada Agricultural University, Parbhani.	2018	82.2	First Class

Place: **Parbhani**

Date: 30 / 7 /2021

Rachana.

Joshi Rachana Renukadas