



**AN EVALUATION STUDY ON
STATE MISSION ON FOOD PROCESSING
(HIMACHAL PRADESH)**

**DEPARTMENT OF PLANNING
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Preface

A strong and dynamic Food Processing Sector plays a vital role in diversification and commercialization of agriculture, ensuring value-addition to agricultural produce, generation of employment, enhancing income of farmers and creating market for export of agri-foods.

The food Processing Sector has been identified as one of the priority sectors under “MAKE IN INDIA” an initiative of Hon’ble Prime Minister of India. With a view to attract investment to this sector the Ministry of Food Processing Industries is implementing various Schemes for development of infrastructure for promoting Food Processing Industries. Mega Food Parks with common facilities like roads, electricity, water supply, sewage and common processing facility like pulping, packaging, cold storage, and food testing and manpower training facilities etc. are being promoted in areas with strong agricultural resource base.

The Directorate of Industries, Himachal Pradesh was the nodal agency for implementation of scheme in the State. This scheme had been discontinued by the Government of India in 2015-16. But, for giving an impetus to Food processing sector, the State Government decided to continue with implementation of the State Mission of Food Processing Schemes out of its own resources and budgetary support is being provided to extend the assistance to Agri-Processing Sector.

The Food Processing Industries also assume importance in State economy as it creates employment opportunities and also increase the income of the farmers by giving them the opportunities of generating additional income because of increasing demand of the raw agricultural products by food processing industries.



Under State Mission on Food processing schemes (SMFP) the funds are provided for upgradation of the technology/ establishment/ modernization of food processing units. The funds also been provided for development of cold chain facilities/ value addition and preservation infrastructure and Creation of Primary Processing Centres/ collection centre in rural areas.

The present study is an attempt to undertake an in-depth analysis of Food Processing Units in respect of changes in scale of production of processing products, employment generated, income enhancement, improvement in food processing infrastructure and reduction in wastage rate of raw material etc.

An objective as well as subjective approaches have been followed in collection of data through telephonic interviews.

The findings of the report highlight the constraints faced by food processing entrepreneurs which impede the growth of food processing units in the State. Though there are many promising dynamics which support good growth of food processing industries in State but, there are still some significant constraints which if not addressed sooner or later can inversely affect the growth prospects of food processing industries in State. Further, the measures required to be taken to overcome the problems/constraints faced by the food processing units in State have been suggested at the end of the report. The recommendations have been made on the basis of the actual findings from the analysis of the observed and collected information.

The study will help the policy makers, particularly the Department of Industries, Himachal Pradesh, other Government departments, academicians, NGOs and State/ central agencies.



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CHAPTER-1

INTRODUCTION

1.1. Background:

The Indian food industry is poised for huge growth, increasing its contribution to the world food trade every year. In India, the food sector has emerged as a high-growth and good profit generating sector due to its immense potential for value addition, particularly, within the food processing industry.

According to the data of Department of Industrial Policies and Promotion (DIPP), the food processing sector in India has received around USD 7.47 billion worth of foreign direct investment (FDI) during 2000-2016.¹

India is the second largest producer of food in the world after China. It has a potential to become the food basket for world, considering the scope and increasing demand for food processing. The strength of the sector lies in the fact that India is the leading producer of several commodities like cereals, banana, mango, chillies, ginger, milk, meat, etc. India is also the third largest producer of marine products and fifth largest in poultry production in the world.

Despite huge success that India has achieved in agriculture production, the post - production wastage levels are unduly high, resulting in wastage of about of Rs. 440 billion worth of fruits, vegetables and grains every year. According to the ICAR-CIPHET study on post-harvest losses of major horticultural, agricultural crops and livestock products, the losses in selected fruits were found to be in range of 6.70% to 15.88%, whereas the losses of vegetables varied from 4.58% to 12.44%.²

1.2. Employment in Food Processing Industry:

The Food Products Industry had the largest number of factories which engaged largest number of persons as compared to other industries during 2018-19.

¹ Sectoral Paper on Food Processing, NABARD, URL, www.nabard.org

² ICAR-CIPHET, study, on post-harvest losses, Department of Agriculture Cooperation and Farmer Welfare & APEDA-2017-18

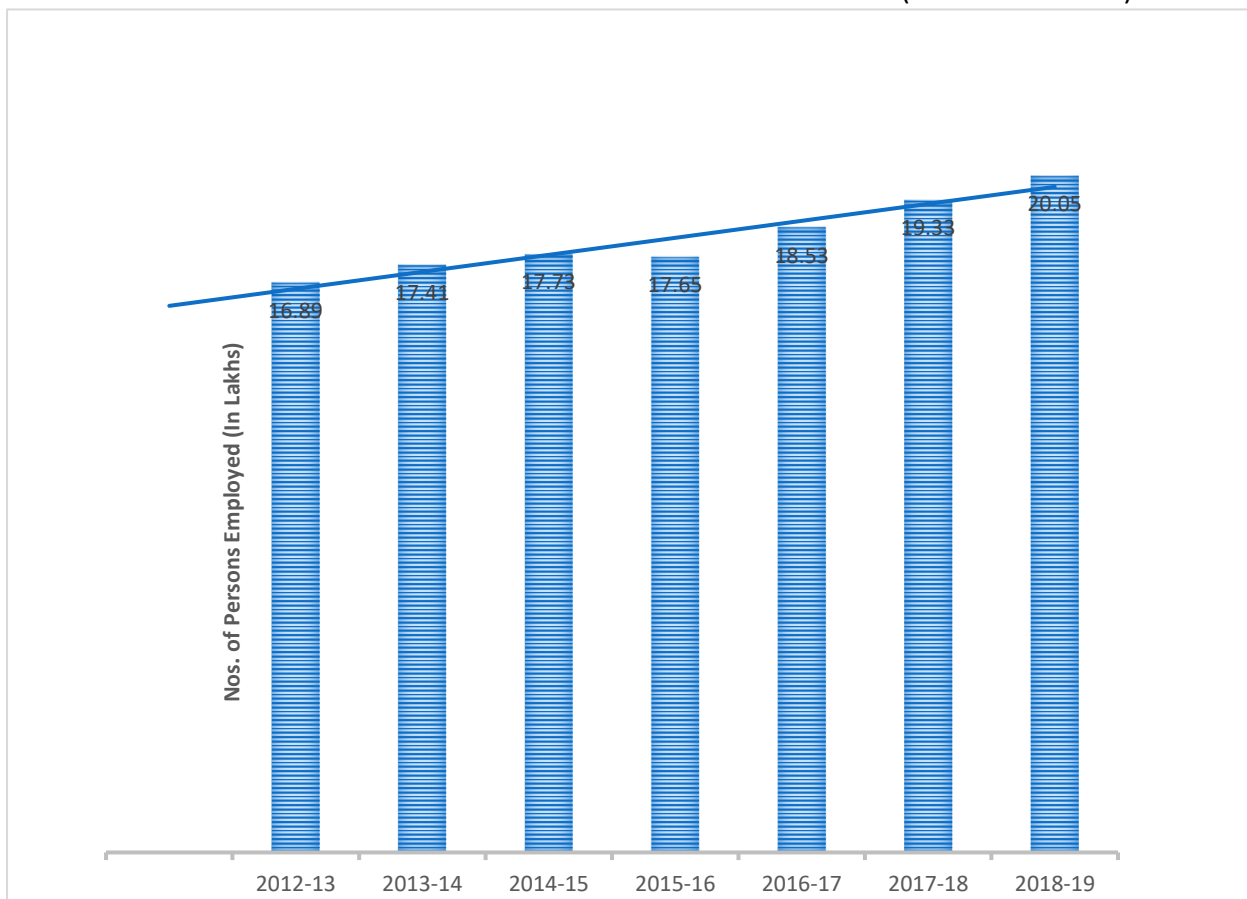


According to Annual Survey of Industries (ASI, 2018-19) the total number of persons engaged in registered food processing sector was 20.05 lakhs.³ Unregistered food processing sector provides.

employment to 51.11 lakh workers.⁴ The growth in employment in food processing sector in registered food processing industries (FPI) since 2012-13 to 2018-19 is given in graph 1.1. Food Processing Industry provides employment to more than 71 lakh people of India which is likely to reach 9 million by 2024.⁵

Graph -1.1: Number of Person Employed in Food Processing Industries in India

(Persons in Lakhs)



³ Annual survey of Industries, 2018-19.

⁴ NSSO Report No. 582, 73rd Round (July 2015 to June, 2016).

⁵ Data of NSSO 67th round.



1.3. Import and export of food products and processed food commodities:

The value of imports of agri-food items including processed food during 2020-21 was 20,994.9 US \$ million. The share of processed food in total food imports was recorded as 13.1 percent in 2020-21. India is one of the major exporters of food commodities. In the year 2020-21, India exported the commodities of worth 38,314.3 US \$ million. It is inferred from the table 1.1 that since 2018-19, the percentage of food imports in overall imports has continuously increased while the percentage share of processed food in total food exports also registered the growth of 22.3% in financial year 2020-21 which was 14.9% in 2017-18. This shows the importance/ demand of Indian processed items in foreign markets. The import-export scenario for last five years is shown in table 1.1.

Table 1.1 India's Imports/ Exports of Food/ Processed Food Commodities (in US \$ million)

S.No	Content description	2017-18	2018-19	2019-20	2020-21	2021-22 (Apr-Oct)
1	Exports					
1.1	Food exports	35,467.9	35,302.5	32732.0	38314.3	24901.7
1.2	Processed food exports	5,273.9	6,389.2	6,264.0	8543.1	5,183.4
1.3	% Share of processed food in food exports	14.9	18.1	19.1	22.3	20.8
1.4	India's total exports	303,526.2	330,078.1	313,361.0	291,163.5	233,912.6
1.5	% Share of food exports in overall exports	11.7	10.7	10.4	13.2	10.6
2	Imports					
2.1	Food imports	23,096.6	19,323.0	19643.1	20,994.9	17,547.3
2.2	Processed Food imports	2,920.0	2,672.6	2,646.0	2756.1	1956.9
2.3	% Share of processed food in Food imports	12.6	13.8	13.5	13.1	11.2
2.4	India's total imports	465,581.0	514,078.4	474,709.3	393,610.6	328,513.0
2.5	% Share of Food imports in overall imports	5.0	3.8	4.1	5.3	5.3

Source: Ministry of Food Processing Industries



1.4. Foreign Direct Investment (FDI) in Food Processing Sector:

In India, 100 percent FDI in food processing sector is allowed with Government's approval for trading, including through e-commerce. The sector has received FDI equity inflow of USD 4.99 billion during April 2014-15 to September 2021.

The FDI equity inflow has considerably declined in 2020-21 and in 2021-22 as compared to the FDI inflow in 2019-20. A decline in FDI during 2020-21 and 2021-22 can possibly be attributed to outbreak of COVID-19. The details of the FDI equity inflow in food processing sector are shown in table 1.2.

Table 1.2 FDI equity inflow to Food Processing Industries

S.No.	year	FDI (In US \$ Million)	FDI (In Rs. Crore)
1	2014-15	515.86	3,164.72
2	2015-16	505.88	3,312.00
3	2016-17	727.22	4865.85
4	2017-18	904.90	5835.62
5	2018-19	628.24	4430.44
6	2019-20	904.70	6414.67
7	2020-21	393.41	1670.37
8	2021-22 (Apr-sept)	410.62	3047.44

Source: Department for Promotion of Industry and Internal Trade

1.5. Role of the Ministry of Food Processing Industries (MoFPI).⁶

The Ministry of Food Processing Industries setup in July 1988, is responsible for formulation and implementation of the policies for food processing industries within the

⁶Annual Report, 2021-22, Ministry of Food processing Industries, Government of India, P-5.



overall national priorities and objectives. A strong and dynamic food processing sector plays a vital role in diversification and commercialization of agriculture, ensuring value-addition to agricultural produce, generation of employment, enhancing income of farmers and creating markets for export of agri-foods. The Ministry acts as a catalyst in bringing in greater investment into this sector, guiding and helping the industry and creating a conducive environment for healthy growth of the food processing industry. For promotion and support of the food processing industries the Ministry works with following aims & objectives:

- i) Creating the required infrastructure to fill up the gaps in supply chain from farm to consumer.
- ii) Funding projects for value addition of agriculture produce.
- iii) Funding projects for induction of modern technology in food processing industries.
- iv) Funding projects for minimizing wastage at all stages in the food processing chain by development of infrastructure for storage, transportation and processing of agro- produce.
- v) Providing support for promotion of value-added produce to domestic consumption and for exports.
- vi) Encouraging R&D for development of food processing.

1.6. Himachal Pradesh - brief background:

Himachal Pradesh is a beautiful hill State in India, nestled in the north-west region of western Himalayas, popularly known as Dev Bhumi. The State is landlocked with the Tibetan plateau to the east, Jammu and Kashmir to the north, and the Punjab to the West. The State stands apart from its neighbours in terms of its sheer topographic diversity. From vast tracts of high- altitude trans-Himalayan desert to dense green deodar



forest, from apple orchards to cultivated terraces, from high ranges snow-capped mountain to snow fed lakes and gushing rivers.⁷

Himachal is the only State in the country whose 89.96 percent population (Census, 2011) lives in rural areas. It is considered as model State for the development of hill States. Agriculture/ horticulture is the main occupation of the people of State which contributes around 9 percent to State domestic product (SGDP). Horticulture is considered backbone of State economy which alone contributes about 40 percent of agriculture GDP, of the State. The dependency on agriculture/ horticulture is prominent as it provides direct employment to about 62 percent of total workforce of the State.⁸

1.7. Importance of Agro- based Food Processing Industries in State:

Agriculture plays a significant role in the State economy. There is limited scope to increase the production through expansion of cultivable land as farmers of the State have diversified their agriculture into high value crops. Due to an increasing shift towards commercial crops, the area under food grains production is gradually declining. The food processing industry primarily focuses on the areas of processing of traditional agricultural and horticultural raw materials. Agri-procurement has lately been an investment area for corporate entities. Hence, food processing industries serve as a vital link between the agriculture and manufacturing sector of the economy.

This link is required to be strengthened as it helps to reduce the wastage of agricultural raw materials and improve the value of agricultural produce by increasing the shelf life of products.

The Food Processing Industries also assume importance in State economy as they create immense employment opportunities and also earn the revenue to State exchequer. For giving an impetus to Food processing sector, State Government decided to continue implement the State Mission of Food Processing after a similar scheme of the Central

⁷www.phdcci.in , Prospering Himachal Pradesh- A Mountain of Opportunities, p- 16.

⁸Chander Mohan Negi, may, 2020, "Dynamics of Apple Production in Himachal Pradesh", Agriculture Situation in India, p-20.



Government was discontinued and budgetary support is being provided to extend the assistance to Agri-Processing Sector.⁹

1.8. State Mission on Food Processing in Himachal Pradesh:

Ministry of Food processing Industries had launched a Centrally Sponsored Scheme (CSS) 'National Mission on Food Processing (NMFP) during the 12th Five Year Plan (2012-13) for implementation through States/ UTs. The basic objectives of NMFP were decentralization of implementation of Ministry's schemes, which would lead to substantial participation of State Government/ UTs. The mission was developed to increase production of food crops and to promote the sustainable agriculture sector in all the States of India. The Directorate of Industries, Himachal Pradesh was the nodal agency for implementation of scheme in the State. This scheme had been discontinued by the Government of India in 2015-16 and it is being now implemented as a State funded scheme by the State Government out of its own resources.¹⁰

1.9. Objectives of State Mission on Food Processing:

- To promote facilities for post-harvest operations including setting up of new food processing Industries.
- To increase the standards of food safety and hygiene to meet the norms set up by FSSI.
 - To facilitates food processing industries to adopt Hazard Analysis Critical Control Points (HACCP) and International Organization for Standardization (ISO) certification norms.
 - To undertake decentralization of the schemes operated by the Ministry of Food processing Industries (MoFPI) in order to fulfil the requirements suitable to the local needs.

⁹Ibid, reference 6, p-30.

¹⁰ Guidelines for implementation of State Mission on Food Processing, Himachal Pradesh, pp-1-5.



- To enlarge the capacity of food processors/ entrepreneurs to upscale their operations through capital infusion, technology transfer, skill up-gradation and handholding support.
- To raise farm gate infrastructure, supply chain logistics, storage, and processing capacity.
- To support established self-help groups working in food processing sector to facilitate them to achieve SME status.
- To ensure sustainable employment opportunities among the youth through institutional training for skill development.
- To provide better support system to organized food processing sector.

1.10. Schemes implemented under the Mission:

- i) Scheme for technology up-gradation/ establishment/modernization of Food Processing Industries.
- ii) Scheme for Cold Chain, Value Addition, and Preservation Infrastructure for Non-Horticultural products.
- iii) Schemes for Promotion Activities: -
 - Organizing Seminar/ workshops
 - Conducting Studies/ Surveys
 - Support to Exhibitions/Fairs
 - Advertisement & Publicity
- iv) Scheme for Creating Primary Processing Centres/ Collection Centres in Rural areas.
- v) Modernization of Meat Shops.
- vi) Reefer Vehicles.

1.11 Funds allocated under State Mission on Food Processing Schemes in Himachal Pradesh: -

Under State Mission on Food processing schemes (SMFP) the funds are provided for upgradation of the technology/ establishment/ modernization of food processing units. The funds are also provided for development of cold chain facilities/ value addition and preservation infrastructure and Creation of Primary Processing Centres/ collection centre in rural areas. The table 1.3 presents the details of the funds



allocated under different schemes implemented under State Mission of Food Processing. It is inferred from the table that since 2015-16 to 2019-20 about Rs. 30 crores were allocated under various schemes were covered under State Mission of Food Processing (SMFP). Table also shows that 39.41 percent of the total allocated funds under SMFP were allocated for Up-gradation of Technology/Establishment/Modernization of Food Processing Industries in the State, which was the highest among all the schemes, while least percentage of amount i.e., 4.83 were for purchase of Reefer Vehicles under this programme.

No funds were allocated for promotional activities viz; organizing Seminars/workshops, conducting evaluation studies/ surveys, support for exhibitions/ fairs and advertisement and publicity etc. during 2015-16 to 2019-20, even though these activities are also part of the SMFP.

Table- 1.3: Funds allocation under State Mission of Food Processing Schemes since 2015-16 to 2019-20. (Rs. In Lakhs)

Sr. No.	Name of the Programme/ Schemes	Financial Year					Total
		2015-16	2016-17	2017-18	2018-19	2019-20	
1	Technology up-gradation/ Establishment/ Modernization of food Processing Industries	176.81 (55.97)	499.53 (87.85)	221.44 (51.71)	157.34 (17.31)	125.35 (16.20)	1180.47 (39.41)
2	Cold Chain, Value Addition and preservation infrastructure for Non- Horticulture Products	114.07 (36.11)	-	66.81 (15.60)	350.00 (38.50)	458.91 (59.30)	989.79 (33.04)
3	Creating Primary Processing Centres/ Collection Centres in Rural Areas	-	-	84.00 (19.62)	343.48 (37.78)	71.22 (9.20)	498.70 (16.65)
4	Modernization of Meat Shops	4.26 (1.35)	12.39 (2.18)	45.12 (10.54)	36.77 (4.05)	83.26 (10.76)	181.80 (6.07)
5	Reefer Vehicles	20.75 (6.57)	56.72 (9.97)	10.82 (2.53)	21.47 (2.36)	35.09 (4.54)	144.85 (4.83)
6	Grand Total (1 to 5)	315.89 (100)	568.64 (100)	428.19 (100)	909.06 (100)	773.83 (100)	2995.61 (100)

Source: Department of Industries, Government of HP.

Figures in parenthesis are the percentages.



1.12. State Level Empowered Committee (SLEC):

The State Government has constituted, 'State Level Empowered Committee' (SLEC) to carry out administration of Food Processing Mission and recommending the funds among above referred schemes, under the Chairmanship of the Addl. Chief Secretary (Industries)/ Pr. Secretary (Industries). It has representatives from other Departments too. The State Government has appointed the Director of Industries as Mission Director. Mission Director is responsible for implementation and monitoring of State Mission of Food Processing (SMFP).¹¹

1.13: Functions of the State Level Empowered Committee:

The SLEC discharges the following Functions:

- To decide the allocation of the resources for the schemes to be implemented under Food Processing Mission.
- The SLEC also decide the modalities, including delegation of sanctioning powers under the schemes to sub committees/officers, including the scrutiny of individual proposals and release of funds.
- SLEC, periodically monitors, reviews and evaluates the implementation of SMFP in the State.
- SLEC has the authority to recall the grants, in case of mis-utilization or if the project is not completed in time.

1.14. Scope and significance of the Study:

The impact evaluation study of food processing Industry of Himachal Pradesh is significant for the following reasons:

- Food processing Industry help to enhances the income of farmer's and small-scale industrial units engaged in food processing by efficient utilization of raw materials, of Agri-products and by value addition of agriculture produce.

¹¹www.indiafilings.com/learn//category/fssai>>State Mission on Food Processing, HP, PP.,3-4.



- To develop food processing chain of all stages by strengthening infrastructure for storage, transportation and processing of agro- food produce to minimize the wastage of food produce.
- Introduction of modern technology into the food processing industries from both domestic and external sources.
- To increase the direct and indirect opportunities of employment as it acts as an important link between agriculture and manufacturing.
- To encourage the research and development in food Processing, Storage, and Packaging and to provide the support for creation of new/ upgradation of old infrastructure and capacity expansion of processing & storage etc.
- Food processing requires different types of inputs/ raw materials. Hence, it also encourages diversification of crops.

1.15. Objectives of the Study:

1. To make assessment of the extent of benefits accrued to the beneficiaries under the scheme
2. To analyse whether scheme benefitted the beneficiaries in expanding their production providing more employment and increasing income.
3. To study the Wastage ratio of the units of different product- groups during collection of raw material and during production and distribution process of manufactured products.
- 4.. To suggest the corrective action/ measures for effective implementation of the scheme.



CHAPTER-2

RESEARCH DESIGN & METHODOLOGY

2.1. Importance of appropriate research methodology:

Research gives us the direction for optimum utilization of resources by overcoming various constraints existing in the study area. An appropriate methodology is an essential component for sound research investigation. The appropriate use of methodology gives the direction to make the research study meaningful, and effective. Although formulation of hypothesis, research design and techniques for measurement of variables are important parts of a perception and intellect of researcher, major objectives of the study and socio- economic or geographical factors are also important for determining appropriate mix of qualitative and quantitative methods.

The present chapter elaborates the research methodology in terms of design, method of data collection, analysis of data, measurement of selected variables and limitations of study.

2.2. Plan of the Study:

The study was conducted in four phases. In first phase of the study, introductory part of food processing sector of India and Himachal Pradesh were taken into consideration. In this phase, an attempt has also been made to study the physical and geographic characteristics of the study area. The vision, mission, objectives, and methodology of study were finalized keeping in view the objectives of the study. These included developing a suitable framework for data collection and analysis as well as formalizing the research design.

The second phase of the study was in respect of the review of relevant available literature on different aspects of food processing industries, its importance, contribution to enhance the agriculture income, adoption of new technology by food processing units for upgradation of infrastructure and expansion of storage capacity etc.



The third phase of the study included collection, editing, coding, tabulating and organizing data collected from secondary and primary sources as per the objectives of the study.

The fourth phase of the study comprised of data analysis, interpretation of findings and report writing and recommending suitable policy measures for future plan.

2.3. Vision of the study:

To assess the impact whether the assistance provided under State Food Processing Mission programme actually enhanced the production of agro-based processed products and how many additional employment opportunities, were generated by these food processing as a result of adoption of new technology or upgradation of the old infrastructure and expansion of the storage capacity of units resulting from Government assistance and interventions.

2.4. Mission of the study:

To suggest policy measures to transform the Food Processing Industries of state so that income of the owners of small and marginal enterprises, the farmers who supply the raw materials to Food Processing Units and work force engaged in these small scale & cottage industries may have been increased. Impact on reduction in wastage of raw material as well as the food products produced by these enterprises and resulting increase in net benefit of the entrepreneur without shifting any burden to consumers in terms of high pricing has also been attempted.

2.5. Reference period of study:

An attempt was made to analyze data pertaining to 3 years starting from 2016-17.

2.6. Limitations of study:

- The study was conducted during a period when the world was facing the challenges of COVID-19, epidemic. During that time Data collection by visiting the field was not possible hence, data was collected through telephonic interviews



with voice recordings of the beneficiaries of food processing Schemes with their permission.

- The study was conducted by interviewing (telephonic) a sample of 30 beneficiaries from five selected districts of State who had established their food processing units in State with the assistance of the Government subsidy provided under State Mission on Food Processing, Schemes. Assistance under this programme was given to beneficiaries for the establishment of new units, upgradation of old units, expansion of the capacity of cold storage units, modernization of meat or dairy products shops, and purchase of reefer vehicles etc.
- Although Study required a larger sample of beneficiaries to be interviewed, it was not possible due to the existence of conditions prevailing because of COVID-19 and mainly in view of difficulties in getting operational telephone numbers of the beneficiaries who received the assistance through various schemes covered under State Food Processing Mission.
- As the sample size was small, therefore, to ensure the representation, of all product groups indulged in Food Processing activities, the data of various product groups was collected in the equal ratio as per their numbers and the details of beneficiaries (mobile No. etc.) of various schemes received, supplied by GM, DIC, of respective Districts.
- The data were collected on the basis of oral (telephonic) enquiry for the initial period when the food processing units were established and for the period of the year 2019-20, after upgradation and expansion of the units. Therefore, the accuracy of data depended entirely on the memory of respondents.
- Due to the conditions prevailing during the reference period because of COVID - 19, it was extremely difficult to verify all facts related to collected information as it was not possible to visit the field for verification of the same. Therefore, the data was verified through telephonic interviews of 20% of beneficiaries by Deputy Director, Planning. Moreover, to ensure the accuracy of data, the help of GM, DIC,



of concerned Districts was taken to seek the clarifications wherever it was required. Thus, while due care was taken to extract accurate information, the possibility of a few may not be denied and these can not be ruled out as the memory of respondents may be limited.

2.7. The Methodology for data collection:

The Research design and methodology for undertaking the survey was based on the objectives and the scope of the study. The primary data was collected from a sample of different groups of registered small-scale industries that existed in the State. The detailed list of industries/ units was prepared and number of product -based units was selected on the basis of the total number of industries/ units existed in the clusters/ districts selected for primary data collection.

2.7.1. Primary Sources:

The primary data was collected from the beneficiaries who received financial assistance from the Government under various schemes being implemented under the State mission on Food Processing, through telephonic interviews.

The data was collected from the sample beneficiaries on structured and pre- tested schedule of questions. The Questionnaire included both qualitative as well as quantitative questions so that both kinds of data could be obtained for a better outcome. The data on the following aspects were collected:

- General information regarding location of food processing units, in district or in Urban and Rural area etc.
- Whether the food processing / storage units were established under Government sector, PSU, Joint venture (PPP, mode), Private Ltd., or they were run by NGOs.
- The source of information of Government schemes providing assistance/subsidy for the establishment of plant.



- Annual/ monthly food processing/ storage capacity of plants at the time of establishment and after the upgradation of infrastructure of units.
- The raw material wastage at the time of establishment of units and after upgradation of technology or expansion of plant size/ capacity.
- Increase in production/ processing/storage capacity of plant due to upgrading the technology/ upgradation of plants after availing the Government subsidy/ assistance.
- Availability of supply chains with regard to raw material, transportation, packing and marketing etc.
- Number of persons employed/ engaged in Food Processing units and man-days employment generated.
- The percentage of stock of manufactured goods remained unsold at the end of the year.
- Skilling the employed workforce by providing training, through Government agencies, or by the processing units themselves.
- Repayment of loan: - regular/ irregular.

The study was carried out in five Districts of Himachal Pradesh, i.e., Kangra, Mandi, Shimla Sirmour and Solan. The multi-stage random sampling method was used to approach selected beneficiaries. The random technique for selection of sample was applied on data/ list of beneficiaries (including mobile no. and address etc.) provided by various officers of Industries Department at district level.

The details (including mobile no. for telephonic interview) of beneficiaries of the State mission on Food Processing Schemes were received from five Districts mentioned above and a sample of 30 respondents was selected out of these beneficiaries.

2.7.2. Secondary Sources:

Secondary data pertaining to the area under cultivation of various agriculture/ horticulture crops and their production, Food processing units, location of these units, capacity of processing, investment in fixed assets, Government assistance/ subsidy



received, and labour force engaged in these food processing units etc. were obtained from Directorate of Industries, Himachal Pradesh and Economics and Statistics Department of State. While secondary data of National level were taken from published reports of Ministry of Food Processing Industries, Government of India, and DGCIS, Kolkata. The papers and articles published in various journals/ magazines and research studies were used for review of literature.

2.8. Research Tools/ Data Analysis:

The data collected from primary and secondary sources was carefully scrutinized and transcribed before the commencement of data tabulation and was interpreted using statistical tools. The percentage change was analyzed for calculation of Growth Rate in case of secondary data available over the period. The relationship among various variables was analyzed by using cross tabulation, average, percentage, and trend analysis.

2.9. Reporting:

The study was systematically planned and is presented in multiple chapters. The outcome of the evaluation study is purely based on the findings from data. The output of the study is helpful in understanding the extent of success of the State Government's initiatives which are taken through the State Mission on Food Processing, programme for the betterment of small and cottage industries in the State. The policy measures have also been suggested for improvement of the food processing sector in the state. The inferences drawn and the recommendations made are purely based on the information gathered during the study and are not necessarily subscribed to by the State Government or the Planning Department.

As study is based on empirical evidences, it will definitely help the policy makers to think of formulating strategies to enhance the food processing capacity of processing units which will ultimately benefit the farmers at large as they will receive better price of their raw materials through value addition because of higher demand of their produce for



processing of goods. Similarly, labour force engaged in these units may get higher wages or more people may get employment in these expanded units. The survey schedule is appended at the end of the report.



CHAPTER-3

REVIEW OF LITERATURE

3.1. Importance of Food Processing Industries:

The Food Processing Sector has emerged as an important segment of the Indian economy in terms of its contribution to GDP, employment and investment. The sector constituted 9.87 percent and 11.38 percent of Gross Value Added (GVA) in Manufacturing and Agriculture sectors respectively, in 2019-20. An abundant supply of raw materials, increase in demand for food products and incentives offered by the Government have impacted the food processing sector positively. During the last five years ending 2019-20, food processing sector has been growing at an average annual growth rate of 11.18 percent.¹²

A well- developed food processing sector with a sophisticated level of processing helps in reduction of wastage, improves value addition, promotes crop diversification & employment as well as export earnings.

3.2. Initiatives taken by Government of India:

India is primarily an agricultural nation and more than 50 percent of its population is employed in the agriculture sector. Thus, India has a surplus amount of raw materials for food processing industry. The food processing industry contributes about 12.8 percent to India's GDP. During April 2000 to March, 2017 India has received around USD 7.54 billion worth of FDI in the food processing sector. The spices are among one of the most exported food products of India. India is making processed spices that can easily be transported with a shelf life of more than a year. As per the data of IBEF (India Brand Equity Foundation) India exported spices of worth US\$ 4 billion in the financial year 2021.¹³ India is the 2nd

¹² Ministry of Food processing Industries, Government of India, "Annual Report 2021-22" PP 21-30.

¹³ URL, [geeksforgeeks.org](https://www.geeksforgeeks.org).



largest producer of fruits & vegetables in the world and produces about 12 percent of the global production. In the financial year 2020-21 the horticulture production of the country was recorded at 334.60 million metric tons. The processing facilities for fruits & vegetables in India are limited and only 3.3 percent of total production is processed.¹⁴

To increase the capacity of Food processing Industry, Government of India started lot of programmes. Make in India Programme is one of them which was started in 2014. Under this initiative, 25 thrust sectors, including manufacturing as well as relevant services sectors have been identified. The major objective of the scheme is to improve the competitiveness of the private and public sector firms operating in the country, facilitating their integration into the global value chains and enabling them to compete better in the global markets. The initiative has made a tremendous impact on the investment climate of the country which can be evidenced by significant growth of 46 % FDI equity inflows.¹⁵

Ministry of Food Processing Industries is having a dedicated investor portal in which a range of information like resource base, availability of land, state specific policies, fiscal incentives, etc. is shared with potential investors to attract investments in food processing sector. Further, Ministry is collaborating with Invest India to help the investors in terms of locating joint venture partners, extending handholding services, expedite regulatory approvals etc.

In addition of this, Government of India had started PM Kisan Sampada Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters with an outlay of Rs. 6000 crore during 2016-17.¹⁶ The scheme consists of following sub-schemes: i) Mega Food Parks, ii) Integrated cold chain and preservation capacities, iii) Infrastructure for agro processing clusters, iv) Creation of backward and forward linkages, v) Food safety and quality assurance infrastructure and vi) Human resources and institutions.

¹⁴ URL, foodprocessingindia.gov.in

¹⁵ Sectoral paper on food processing- NABARD, URL, www.nabard.org, August, 2018, pp. 24-26.

¹⁶ URL, <http://mofpi.nic.in>



3.3. Food Processing Industry Challenges and Opportunities:

India is the world's second largest producer of food next to China and has potential of being the biggest in the world. The agriculture base of the country is quite strong, but the wastage is very high and the processing of food products is very low. The country's processing sector is small and processing of food to consumable standards in India has reached only upto 10 percent while in some developed countries the overall processing level of food to consumable standards are at level of up to 80 percent.¹⁷

Food and food products are the biggest consumption category in India with spending on food accounting for nearly 21 percent of India's GDP and with market size of \$ 81 billion. The Indian domestic food market is expected to grow by nearly 40 percent of the current market size to \$ 344 billion by 2025.¹⁸

The Agro Food Processing Industry in India employs around 18 percent of the country's industrial workforce and it ranks fifth in terms of production and consumption. The processing of food products plays an important role in the conservation and effective utilization of fruits and vegetables. India's strong agriculture base, variety of climatic zones and accelerating economic growth holds significant potential for food processing industry that provides a strong link between agriculture and consumers.¹⁹

During the last three decades the net area sown under major crops declined. The decline in the area under food grains resulted in an increase in area under fruits and vegetables, oilseeds, sugarcane and cotton crops etc. This change in area towards commercial crops is registered because of the change in pattern of consumption and trade in Indian agriculture

¹⁷ Bhuiyan, A (2010) "India's food industry on the path of high growth" Indo-Asian News service.

¹⁸ Annapurna, world of food India (2011), URL www.worldoffoodindia.com

¹⁹ Dr. VR. Palanivelu and A. Apdhulkathar, (2016), "The Food Processing Industry in India: Challenges and Opportunities" pp. 34.



such as fruits and vegetables, milk and milk products, meats, eggs, fish and processed food products. The export of above referred products grew by about 18 percent annually.²⁰

3.4. Growth of Food Processing Industries in Himachal Pradesh:

Himachal Pradesh a prominent, hill State in India, is known for its snowcapped Himalayan ranges, presence of diverse Agro- climatic zones with lot of potential to produce off- season vegetables and high value horticulture commodities which account for about 44 percent of the cropped area. The Horticulture sector annually contributes INR 63,000 million to the State economy.²¹ Considering the existing scenario of horticulture in the State with regard to increase the productivity of apple and other fruit crops, poor post harvesting and marketing infrastructure, the development of horticulture in Himachal Pradesh is envisaged with the assistance of World Bank funded Himachal Pradesh Horticulture development Project (HPHDP). The project lays emphasis on enhancing the livelihoods of small and marginal farmers by increasing the food production productivity by intensification, crop diversification, area expansion by bringing new area under horticulture and off-season vegetables, improving the processing infrastructure of State and backward and forward market linkages for improving the marketing of horticulture produce.

Himachal has made significant achievements in the field of industrialization in the past few years. The State Government has announced various measures to promote industrialization in Himachal Pradesh. To promote ease of doing business the State Government has announced online application filing for speedy approvals.²² The Government has set up an Industry Advisory Council for involvement and interaction with industrial stakeholders in decision making. Further, projects having investment of more

²⁰Sharma V.P and D. Jain (2011), "High Value Agriculture in India: Trends and Future Prospects", Indian Institute of management, Ahmadabad, India, W.P. No. 02-07-2011.

²¹ Himachal Pradesh horticulture Development Project,

²²Investor Portal, Ministry of Food Processing Industries, "Why Invest in Himachal?" (<https://foodprocssingindia.gov.in>)



than Rs. 10 crores are approved by State level Single Window Clearance & Monitoring Authority.²³

Bestowed with rich plant diversity, Himachal Pradesh has immense scope in the area of food processing industry. The potential of MSMEs in the food sector has not been tapped fully. The MSMEs in the food processing sector mostly produce jams, jellies, juice, candies pickles etc. Most of the industries do not have tie-ups with R&D organizations. Only a few firms were in contact with Central Food Technological Research Institute (CFTRI), National Environmental Engineering Research Institute (NEERI) and HIMCU (Himachal Pradesh Fruits Canning Units). The majority of the industries felt that competition is high in the food industry. Since the cost of imported machinery is high, that is why most of the industries have medium production scale. Although required manpower is available but technically qualified food technologists can help in bringing innovations and product diversification which is presently lacking.²⁴ Due to limited product range and restricted sale area, there is stiff business competition.

²³MOFPI, "State Policies & Fiscal Incentives"

(<https://emerginghimachal.hp.gov.in>)

²⁴Aparna Maitra Pati, Sukhjinder Singh, Doulat Ram, and Paramvir Singh Ahuja, "Analysis of Resources of Food Processing Industries in Himachal Pradesh", (Feb. 2014) International Journal of Scientific Research, PP. 286-290.



CHAPTER-4

A SNAPSHOT OF THE FOOD PROCESSING INDUSTRY OF HIMACHAL PRADESH

4.1. Introduction:

Himachal Pradesh is one of the fastest growing State in India. Its per capita Gross State Domestic Product (GSDP) at current prices in 2019-20 was Rs.2,25839 which was much higher than the national average of Rs. 1,51760. The per capita GSDP increased at a CAGR of 9.03% between 2015-16 and 2019-20.²⁵ Agriculture is a key livelihood for the people of Himachal Pradesh and holds a significant share in the State's economy. The state has the advantage of suitable agro-climatic conditions to grow seasonal vegetables and exotic fruits.

The State has a surplus amount of raw materials which is essential for establishing the food processing industries of fruits and vegetables, milk, meat, cereals, spices and other food articles so that farmer's income could be increased by adopting value added method. The food processing industry primarily focuses on the areas of traditional processing of agricultural and horticultural raw materials.

The presence of good food processing infrastructure has attracted major companies to invest in the State.²⁶

4.2: -Key Food Processing Players in State²⁷

A) Cremica Group: Cremica Group is a prominent player in food retail and food services industries in India. The company has established its plant at Tahliwal Industrial Area, Una for manufacturing of biscuits and Indian snack foods. It keeps 100 % automated facility, with an annual manufacturing capacity of 150,000 MT. The Company's business activities include Cremica Frozen Foods, EBI Foods, Mrs Bector's Desserts, and Cremica Agro India.

²⁵India Brand Equity Foundation (www.ibef.org)

²⁶Ministry of Food Processing Industries, PRS Legislative Research.

²⁷India Brand Equity Foundation (www.ibef.org) Ibid, reference, 26.



B) Adani Agri fresh Ltd: Adani Agri fresh, a 100% subsidiary of Adani Enterprises, has set up three controlled- atmosphere storage units at Rampur, Sainj and Rohru in Himachal Pradesh, with an investment of US \$ 40 million and a combined capacity of 18,000 metric tons of apples per year. The subsidiary is involved in the procurement, storage and transportation of fresh fruits and vegetables. The company directly buys fruits from about 4,000 farmers.

C) Nestle India: - Nestle has been operating in India for almost a century, with seven production facilities across the country. The company produces chocolates and confectionaries, prepared dishes and cooking aids, beverages and milk products and nutrition.

D) Dabur: Dabur is one of the country's largest consumer goods companies. It produces several products, including honey and amla products, in Baddi, District solan, Himachal Pradesh.

In addition to the above, lot of medium and small-scale industries/ units were established in various Districts of the State. The details of product group-wise food processing clusters are given in table 4.1.

Table- 4.1: Food Processing Clusters in Himachal Pradesh

S.No.	Product Group	District
1	Dairy products and analogues	Shimla, Mandi, Bilaspur, Kullu, Kangra, Solan, Hamirpur, Una, Sirmour
2	Spices	Mandi, Bilaspur, Shimla
3	Prepared Foods	Kangra, Mandi, Hamirpur
4	Cereals and Cereal Products	Solan, Hamirpur, Kangra, Kullu
5	Ready to eat	Hamirpur, Solan, Kangra
6	Pickle, Jam, squash	Solan, Kangra, Una

Source: Ministry of Food Processing Industries.



4.3. Creation of Agri-Horti production cluster under Pradhan Mantri Kisan Sampada Yojna in Himachal Pradesh:

The Government of India has approved a new Central Sector Scheme -PM Kisan Sampada Yojna (PKSY) in 2019-20 implemented by Food Processing Ministry, Government of India for creation of infrastructure for agro processing clusters in the country. The details of agro-processing clusters implementing/ executing in Himachal under PM Kishan Sampada Yojna are given on table 4.2.

Table 4.2: District-wise production clusters of fruit and vegetables established under PM Kisan Sampada yojana.

S.No.	District	Estimated total production (F&V) in 000 MT	Major Fruits	Major vegetables
1	Shimla	783.00	Apple Pear	Peas Green, Cabbage, Potato
2	Solan	329.00	Data not available	Tomato, Capsicum, Peas Green
3	Kullu	302.00	Apple, Pear, Plum	Tomato, Peas Green, Cabbage
4	Mandi	283.00	Apple, Mango, Pear	Peas Green, Tomato, Cabbage, Potato
5	Kangra	227.00	Mango, Kinnow, orange	Tomato, Potato, Cabbage

Source: Ministry of Food Processing GOI.

The scheme envisages grants-in-aid @35% of eligible project cost in general areas and @ 50% of eligible project cost in the Northeast States including Himachal Pradesh. The maximum grant of 10.00 crore per project can be taken under this scheme.

4.4. Setting up of special fund to provide credit to agro-processing units/ Mega Food Park:

The Government of India has set up special fund of Rs. 2,000 crores in NABARD to make available affordable credit to agro-processing units and establishment of Food Parks in the country. The Reserve Bank of India has made NABARD, the nodal agency for this purpose. The list of the notified Food Parks for Himachal Pradesh till 03-03-2022, is given in table 4.3.

**Table 4.3: Designated Food Parks in HP notified by GOI till 03-03-2022.**

S.No.	Name of Designated Food Park/ Promoters	Location/ District	Category (MFP/BP/ /IA/IE/APC*
1	Industrial area of Hatli and Garnota.	Chamba	IA
2	Industrial Area of Hamirpur and Nadaun.	Hamirpur	IA
3	Industrial Area of Nagrota Bagwan, Dhaliara, Nagri, Sansarpur, Terrece, Bain Attarian, Badhal, Raja ka Bagh, and Nargla Jawali.	Kangra	IA
4	Industrial Area of Shamshi	Kullu	IA
5	Industrial Area of Reckong Peo in Kinnaur District	Kinnaur	IA
6	Industrial Area of Ratti, Bhambla and Saulikhad	Mandi	IA
7	Industrial Area of Shoghi, Maindi, Jais, Jubber Hatti, and Duttnagar	Shimla	IA
8	Industrial Area of Kala Amb and Paonta Sahib	Sirmour	IA
9	Industrial Area of Tahiwala, Gagret, Mehatpur, Amb, Jeetpur, Bheri and Basal	Una	IA
10	Industrial Area of Baddi, EPIP Baddi (Ph-I & II), Barotiwala, Chambaghat, Banalgi, Mamleeg, Katha Bhatoli, Vakanaghat, Lodhi Majra and Majhol	Solan	IA
11	Industrial Estate of Shivnagari (Holi) Sultanpur and Parel in Chamba	Chamba	IE
12	Industrial Estate of Agwin Buhli and Khiahlohakhrian in Hamirpur	Hamirpur	IE
13	Industrial Estate of Kangra, Dehra and Jawali	Kangra	IE
14	Industrial Estate of Keylong in Lahaul & Spiti	Lahaul & Spiti	IE
15	Industrial Estate of Saiglu and Palli	Mandi	IE
16	Industrial estate of Raighat, Pandranu and Sunda Bhaura in Shimla	Shimla	IE
16	Industrial Estate of Parwanoo, Chambaghat and Dharampur	Solan	IE
17	State of Art Industrial Area Pandoga, Una	Una	IA
18	State of Art Industrial Area Kandori, Kangra	Kangra	IA
19	Biotechnology Park, Solan	Solan	BP
20	Cremica Mega Food Park Promoted by M/s.	Village Singha,	MFP



	Cremica Food Park Pvt. Ltd.	Haroli, Una	approved by MoFPI
21	Industrial Area of Bilaspur and Gwalthai	Bilaspur	IA
22	M/s Great Himalyan Farm Fresh	Village Salol, Mohal Peri, Kangra	APC

Source: Ministry of Food Processing Industries, GOI. *MFP- Mega Food Park, IA- Industrial Area, IE- Industrial Estate, APC- Agro Processing Cluster, BP- Biotechnology Park

The capital grants under this scheme are provided by Food Processing Industries, Government of India @ 50% of the eligible project cost in general areas and at the rate of 75% of eligible project cost in difficult and hilly areas i.e., Northeast Region including J&K Sikkim, Himachal Pradesh and Uttarakhand etc.

4.5. Pattern of Assistance under PM Kisan Sampada Yojna for development of integrated Cold Chain and value addition infrastructure:

The financial assistance (grant-in aid) under the scheme is limited to a maximum of Rs. 10 crore per project in relation to civil works and eligible plant and machinery. For storage infrastructure, including pack house and precooling unit, ripening chamber and transport infrastructure, grant-in-aid @ 35% for General Areas and @ 50% for Northeast States, Himalayan States is provided. For value addition and processing infrastructure including frozen storage/ deep freezers etc. grant-in aid @ 50% for General areas and 75% for Northeast States and Himalyan States is provided. The list of the approved cold chain projects for the State of Himachal Pradesh is given in table 4.4.

**Table-4.4; District-wise approved cold Chain project by MoFPI, Govt. of India**

S. N.	Project	Sector	District	Date of approval	Date of completion	Project Cost (Rs in crore)	Amount of Grants (Rs in crore)	Physical Progress
1	Dev Bhumi Cold Chain Ltd	F&V	Shimla	23-05-2011	19-02-2013	14.25	8.05	Commercial Production started
2	Aromatrix Flora Pvt. Ltd.	F&V	Solan	25-05-2011	Dec. 2013	15.65	9.75	Commercial Production started
3	Hillcrest Foods	F&V	Solan	25-05-2011	27-05-2013	15.61	7.69	Commercial Production started
4	Fresh Produce impex	F&V	Shimla	20-09-2013	19-10-2016	13.30	8.21	Commercial Production started
5	Himalyan Cotton Yarn Ltd.	F&V	solan	20-09-2013	16-08-2017	12.30	4.99	Commercial Production started
6	Canvas Integrated Cold chain	F&V	Una	26-05-2011	Dec. 2013	14.63	7.42	Commercial Production started
7	Adani Agri Fresh Ltd.	F&V	Shimla	04-10-2013	04-04-2016	26.31	7.68	Commercial Production started
8	Him Fresh Produce Co.	F&V	Shimla	04-10-2013	04-04-2016	16.49	9.10	Commercial Production started
9	Paonta sahib food Corporation	F&V	Solan	04-10-2013	20-01-2020	20.89	7.17	Commercial Production started
10	Pulkit fresh & Healthy	F&V	Solan	31-08-2016	21-03-2018	15.40	10.00	Commercial Production started
11	Sai All Season fruit and Vegetable	F&V	Solan	12-10-2018	10-05-2021	16.94	9.91	Commercial Production started
12	Om CA Store, a Unit of Om Hospitalities and Resorts	F&V	solan	30-10-2018	-	15.00	6.21	65% progress
13	Vision Fresh and Frozen	Dairy	Una	08-01-2019	-	21.13	2.29	65% progress
14	ANGD Fruit Ranch Pvt. Ltd.	F&V	Shimla	16-07-2019	-	58.23	6.19	65% progress
15	Himachal Pradesh State Agriculture Marketing Board HPSAMB	F&V	Shimla	22-09-2020	-	59.25	-	Under implementation
16	Bija Agri fresh Pvt. Ltd.	F&V	Kullu	23-11-2020	-	35.00	6.46	65% progress
17	Shiva Agri Fresh	F&V	Shimla	24-11-2020	-	22.02	2.50	65% progress

Source: Ministry of Food Processing Industries, GOI



4.6. Impact of Government policies on the growth of Small Scale/ micro enterprises in State:

The state government has notified a slew of policies to attract more investors in Himachal Pradesh. These policies make the process of investment in the state easier than before. This is the reason that the number of Industrial Areas and Food Parks and Micro and Small-Scale Industrial Enterprises has increased in the State. The table 4.5 revealed that District solan is a favorite destination for the industrialists as growth in the establishment of the number of small and micro enterprises during the period from 2017-18 to 2019-20 was recorded highest in district solan in comparison to the growth recorded in other districts of State, followed by District Bilaspur and Una where incremental rate of micro and small enterprises was recorded as 450% and 313.84% respectively.

Table-4.5. Number of Micro/small scale Industrial Enterprises set up in the State during 2017-18-2019-20.

S.No.	District	2017-18	2018-19	2019-20	% Change from (2017-18-2019-20)
1	Bilaspur	42	631	231	450.00
2	Chamba	94	122	330	251.06
3	Hamirpur	150	147	294	96
4	Kangra	279	503	1004	259.85
5	Kinnaur	21	159	32	52.38
6	Kullu	347	318	486	40.06
7	Lahaul-Spiti	0	0	4	400
8	Mandi	219	353	604	175.80
9	Shimla	438	429	806	84.02
10	Sirmour	672	342	514	-23.51
11	Solan	180	1055	1196	564.44
12	Una	159	382	658	313.84
Total (HP)		2601	4441	6159	136.79

Source: -Industries Department, Himachal Pradesh

In the Financial year 2017-18 the total micro and small enterprises established in the State were recorded as 2,601. While in the year 2019-20, the tremendous increase was seen in



the numbers of the small and micro enterprises, and these were recorded at 6159 units in the State.

This indicates the availability of conducive environment which is given by the State Government to entrepreneurs, availability of raw materials and other incentives given by State Government of Himachal Pradesh.

4.7. Creation of Employment by the Industrial units in the State:

The Industrial sector has played an important role in the creation of employment opportunities in the State. During the year 2019-20 total 6159 industrial units were established in Himachal Pradesh which provided employment to 42,643 persons in the State (table. 4.6).

Table-4. 6. Employment created by Industrial Enterprises set up in 2019-20.

S.No.	District	Nos. of Industrial units	Investment (In Rs. Crore)	Employment (Nos. of Persons)
1	Bilaspur	231	706.2	934
2	Chamba	330	6504.91	1613
3	Hamirpur	294	33.82	1061
4	Kangra	1004	159.53	5071
5	Kinnaur	32	47.31	132
6	Kullu	486	908.56	2714
7	Lahaul-Spiti	4	61.81	14
8	Mandi	604	684.53	3882
9	Shimla	806	659.81	3944
10	Sirmour	514	209.47	5115
11	Solan	1196	5408.86	15076
12	Una	658	145.08	3087
Total (HP)		6159	15529.89	42643

Source: -Industries Department, Himachal Pradesh

The highest number of industrial units was established in District Solan (1196) followed by District Kangra, Shimla, Una, Mandi and Sirmour respectively, while the highest employment opportunities were created by the industries established in District Solan



(15076 persons) followed by District Sirmour (5115 persons), Kangra (5071 persons), Shimla (3944 persons), Mandi (3882 persons) and Una (3087 persons), respectively.

4.8. Employment created under State Mission on Food Processing Scheme: The food processing industry is not a big contributor in creating employment opportunities in the State. As per the data of 2019-20, its share was even less than 2% in total employment creation by industrial enterprises in the State. During the year 2019-20, the total 111 industrial units were established in H.P., with the assistance of the State Mission on Food Processing Scheme, which provided employment to only 754 persons in the State (table 4.7).

4.7. The Employment generated under State Mission on Food Processing Scheme in HP during 2019-20.

S.No.	District	Nos. of Food Processing units established	Persons Employed (in Nos.)	Investment (In Rs. Lakhs)
1	Bilaspur	8	53	494.42
2	Chamba	4	31	196.24
3	Hamirpur	2	10	55.75
4	Kangra	15	60	570.71
5	Kinnaur	1	1	5.81
6	Kullu	19	153	1853.66
7	Lahaul-Spiti	-	-	-
8	Mandi	30	93	776.20
9	Shimla	8	52	710.12
10	Sirmour	6	13	168.72
11	Solan	12	182	6366.57
12	Una	6	106	2285.39
Total (HP)		111	754	13483.62

Source: -Industries Department, Himachal Pradesh

4.9. Factors that play prominent role in the growth of Food Processing Industry in State:

4.9.1. Continuous increase in area and Production under Fruits in the State: The farmers of the State diversify their agriculture cultivation towards commercial or high return crops. It is seen that over the period, the area of Horticulture crops particularly apple, citrus and



other fruit crops increased rapidly in the State. District Shimla is the leading district among all other districts where alone about 50 percent of total apple cultivated area of State is found. Whereas Kullu, Mandi, and Kinnaur are other Districts where considerable area is found under apple cultivation. The areas under various fruit cultivation registered the growth of 9.64 percent during the period of 2008-09 to 2018-19, the details of which are given in table 4.8.

Table further revealed that area under apple plantation in the state has increased by 16.13 percent during the period of 2008-09 to 2018-19, while area under citrus and other fruits plantation has registered the growth of 15.20 and 12.64 percent, respectively during the same period.

The table shows that, area under apple cultivation increased at a higher rate as compared to citrus and other fruits. This may have happened because of higher returns received by the apple orchardists in the form of the better price from the market as compared to other fruit cultivators.

Table: 4.8. Area under Fruits in State (in Hectare)

S.No	Year	Apple	Citrus	Nuts & Dry Fruits	Other Fruits	Total
1	2008-09	97,438	21,588	11,096	74,507	2,04,629
2	2009-10	99,564	22,050	11,037	75,503	2,08,154
3	2010-11	1,01,485	22,305	11,022	76,483	2,11,295
4	2011-12	1,03,644	22,396	11,039	77,495	2,14,574
5	2012-13	1,06,440	22,809	10,902	78,152	2,18,303
6	2013-14	1,07,686	23,110	10,819	79,091	2,20,706
7	2014-15	1,09,553	23,704	10,621	80,474	2,24,352
8	2015-16	1,10,679	24,063	10,491	81,566	2,26,799
9	2016-17	1,11,896	24,475	10,364	82,467	2,29,202
10	2017-18	1,12,634	24,649	10,301	83,268	2,30,852
11	2018-19	1,13,154	24,869	10,194	83,922	2,32,139
% Change during 2008-09 to 2018-19		16.13	15.20	-8.13	12.64	9.64

Source: Horticulture Department, Himachal Pradesh.



Further, it can also be inferred from the above table read in conjunction with table 4.9 that although area under fruit cultivation continuously increased over the period, production of fruits in the State during same period showed fluctuating trend (table-4.9). This happened because fruit production in the State is directly linked with the climate/ rainfall/ snowfall and lot of other conditions which influence the production of fruits accordingly during that year.

It is also inferred from the table that production and productivity of the apple were higher and even also grown faster than other fruits because of high investment made by apple growers on purchasing of better root stocks, fertilizers and insecticides etc.

Table-4.9: Fruits Production in Himachal Pradesh (000 Tones)

S.No	Year	Apple	Citrus	Nuts & Dry Fruits	Other Fruits	Total
1	2008-09	510.16	26.00	3.55	88.36	628.07
2	2009-10	280.11	28.14	2.81	71.18	382.24
3	2010-11	892.11	28.68	3.62	103.41	1027.82
4	2011-12	275.04	25.03	2.49	70.26	372.82
5	2012-13	412.39	24.32	2.81	116.19	555.71
6	2013-14	738.72	22.27	4.06	101.29	866.34
7	2014-15	625.20	22.17	2.41	102.16	751.94
8	2015-16	777.13	22.62	3.37	121.67	928.79
9	2016-17	468.13	28.05	2.99	112.71	611.88
10	2017-18	446.57	28.85	3.38	88.50	565.30
11	2018-19	368.60	29.34	3.65	93.77	495.36
12	2019-20	715.25	32.10	4.25	93.82	845.42

Source: Horticulture Department, Himachal Pradesh.

This can also be inferred from the table that increase in total production of fruits and vegetables made entrepreneurs to meet the demand of raw material from a nearby the spot/ location and this resulted into the saving of transportation cost which otherwise may not have been saved if the required raw material was not be available at a nearby the site.

4.9.2. Area and Production of vegetables in Himachal Pradesh: In addition to the increase in fruit plantation in the State, the farmers also shifted their cultivated land from



traditional crops to off-seasonal vegetables for earning better returns. Table 4.10 shows the growth of the area under cultivation of Potato and other commercial vegetable crops in Himachal Pradesh.

During the period of 2013-14 to 2019-20 the area under Potato cultivation registered negative growth of 21.35 percent while area under other vegetable crops increased 19.64 percent during same period.

It indicates that progressive farmers of the State had shifted their cultivated land from traditionally growing vegetables to high return exotic vegetables.

Table-4.10: Area and Production of vegetables in H.P.

S.No	Year	Potato		Other Vegetables	
		Area (Hect.)	Production (MT)	Area (Hect.)	Production (MT)
1	2013-14	19,199	2,43,263	72,001	14,65,964
2	2014-15	14,685	1,81,380	73,894	15,76,454
3	2015-16	18,022	1,83,252	75,233	16,08,553
4	2016-17	21,080	2,02,440	76,947	16,53,506
5	2017-18	15,875	1,98,660	78,680	16,91,564
6	2018-19	14,407	1,86,802	76,453	15,60,196
7	2019-20	15,100	1,96,710	86,144	18,60,670
% Change from 2013-14 to 2019-20		-21.35	-79.86	19.64	26.92

Source: Directorate of Agriculture Himachal Pradesh

4.9.3. Milk, Meat, and eggs Production in the State:

Farmers of the State also supplement their income by adopting subsidiary occupations such as dairy & poultry farming and rearing of goats, sheep & pigs etc. There was a good demand for meat and dairy products in the local/ distant markets which helps in increasing the income of the farmers. Table 4.11 shows that milk production in state during 2018-19 to 2019-20,



grew by 4.82 percent while poultry and egg production during same period had increased by 7.89 percent and 5.88 percent, respectively.

Table: -4.11. Milk, Meat and eggs Production in the State:

S. No.	Item	Unit	Production		% Change in Production
			2018-19	2019-20	
1.	Milk (Cow, Buffalo & Goat)	000 Tone	1460.34	1531.32	4.82
2	Production of meat (Goat, Sheep & Pig)	000 Kgs	3348.86	3412.09	1.89
3	Poultry Meat production	000 Kgs	1252.40	1351.19	7.89
4	Production of eggs	Lakh Nos.	1007.00	1066.21	5.88

Source: Animal Husbandry Department, Himachal Pradesh

4.9.4. Fish production in state:

The fisherman involved in fish production and selling activities of fish products were also fetched good price that contributed to their income. Table 4.12 reveals that fish production in the State continuously increased from 2017-18 to 2019-20 and recorded the growth of 9.83 % during that period.

Table: -4.12. Fish Production in the State:

S. No.	Item/ Unit of measurement	Nos. of fishermen/Production of fish/ value of fish caught			% Change in Production
		2017-18	2018-19	2019-20	
1	Licensed fishermen Registered (Nos)*	11475	10867	11749	2.39
2	Production of Fish (Tones)	12765.36	13401.68	14020.14	9.83
3	Approximate value of fish caught. (Rs. 000)	1582245	1715731	1844392	16.57

Source: Animal Husbandry Department, Himachal Pradesh. *Temporarily registered fisherman were not included.



The growth in the value term of fish sold was much higher in comparison to the growth of fish production which was 16.57%.

In nutshell, it can be concluded from the table that average annual income of the fisherman engaged in fish catching and selling activities had increased. A fisherman who on an average was selling Rs. 1,38,000 worth of fish in financial year 2017-18, his proceeds from selling of fish caught by him was increased to Rs. 1,57,000 in financial year 2019-20.



CHAPTER-5

SOCIO- ECONOMIC ASSESSMENT OF THE BENEFITS TO BENEFICIARIES OF STATE MISSION ON FOOD PROCESSING SCHEMES IN HP.

The study focuses on the available infrastructure of the food processing industry in the state. In Himachal Pradesh, there are total 167 registered food processing units and 21,851 unregistered FPI units²⁸. The MSMEs mostly produce/ manufacture jams, jellies, juices, candies and pickles. Under State mission on Food Processing Scheme warehouse and cold stores were also constructed near the apple producing areas to provide storage facilities to orchardists of the State.

The data of the beneficiaries of State Mission on Food Processing Scheme was collected from different product- groups registered as micro and small-scale industries category in the State. The Chapter throws light on the social and economic benefits to the beneficiaries of 'State Mission on Food Processing' schemes in Himachal Pradesh.

5.1. Selection of the beneficiaries of food processing Schemes:

The total sample of 30 small scale and micro enterprises/ beneficiaries of State Mission on Food Processing Schemes were taken from five Districts of State. During the selection process of beneficiaries, the type of units (product group-wise) established in 5 selected districts of State and their production scale were taken into consideration. Accordingly, the sample of beneficiaries was selected from different districts. The largest sample was taken from district Mandi (53.33%) followed by District Shimla (20%), Kangra (16.67%) Sirmour (6.6 7%) and District Solan (3.33%) respectively as presented in table 5.1.

²⁸ Aparna Maitra Pati, Sukhjinder Singh, Daulat Ram and Paramvir Singh Ahuja, *ibid*, reference No. 24, p. 286.

**Table: 5.1: District-wise sampled Food processing units in Study Area:**

S. No.	Districts	Sample selection (in Percent)
1	Mandi	53.33
2	Shimla	20.00
3	Kangra	16.67
4	Sirmour	6.67
5	Solan	3.33
6	Overall	100.00

Source: Feld Survey

5.2. Product group-wise selection of the beneficiaries assisted under Food Processing Scheme:

The sample was taken from among the small scale and micro enterprises/ beneficiaries getting financial assistance from the Government for strengthening the infrastructure of the units/ cold storage/ meat shop/ milk chilling plant etc. established/ constructed by them. Assistance has also been given for installation of new technology for upgrading the scale of the production/ and upgradation of old technologies of these units. Based on the different production abilities the selected units can be divided into seven product groups as these units produced different goods. All the sample units except in Mandi district were located in rural areas and none of the sample units were from tribal area.

The district and product group- wise detail of selected units is presented in table 5.2. The table shows that under fruits and vegetables product group 66.67 percent of beneficiaries were selected from District Shimla while 33.33 percent of the beneficiaries of this group was taken from district mandi.

This was done as most of the small enterprises had established their processing units belonging to the fruit & vegetables product group in these districts. These units were producing/ manufacturing juices and cider etc.



Further, the construction of cold stores is closely associated with the units engaged in fruit and vegetables product group. Most of the cold storages were constructed in apple dominated areas of district Shimla and Mandi that is why the sample of this product-group was selected from two district only.

Table: 5. 2: Product Group-wise selection of Food Processing units in Study area:

(In percent)

S.No	Product Group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables	33.33	66.67	-	-	-	100
2	Cereals	85.71	-	14.29	-	-	100
3	Flour Milling	83.33	-	16.67	-	-	100
4	Meat and Poultry	-	-	50.00	50.00	-	100
5	Milk Processing	-	-	-	50.00	50.00	100
6	Spices	50.00	-	50.00	-	-	100
7	Pulses and Oil milling	50.00	-	50.00	-	-	100
8	Total	53.33	20.00	16.67	6.67	3.33	100

Field survey

The beneficiaries of the product group of Cereals were selected from the District of Mandi and Kangra in ratio of 85.71% and 14.29 %, respectively. Similarly, the sample of those beneficiaries who got assistance for Flour Milling, were also selected from Mandi and Kangra districts. The sample of the beneficiaries who received assistance/ loan for construction/ modernization of meat shop were taken from districts kanga and Sirmour in the ratio of 50% from each district. Similarly, the beneficiaries who received assistance for introducing the new technology in their Milk Processing Plants were taken from districts Solan and Sirmour in equal ratio of 50% from each district.

5.3. Publicity Mode (s) of the Scheme:

Wide publicity of scheme (s) is an essential intervention for the success of any scheme as different media help in educating the mode public and make them aware of the benefits of the schemes.



Table 5.3 shows the different modes of publicity used by Industries Department to popularize the ‘State Mission on Food Processing schemes’ among the entrepreneurs of State. The table indicates that a very large proportion of the beneficiaries (63.34%) came to know about the scheme being implemented by the Government after they visited the department of Industries to enquire about Government Schemes. A considerable proportion of beneficiaries (20%) had known about the kind of assistance available and other features of the schemes of the government through relatives/ friends.

Direct interaction with people by the departmental officials through extension services was found lacking as poor reach of department through its website and electronic media, made aware only 3.33 percent of beneficiaries. This indicates that digital medium of publicity of scheme was not effective to reach the targeted groups. Efforts are required to be made by the departmental officials to draw up a strategy to advertise the scheme on radio, television, internet, WhatsApp, and through social media etc.

Table: 5.3. Reach through various publicity media: (percent)

S. No.	Districts	Mode through which information of Government schemes reach to the beneficiaries					Total
		Deptt. Publicity (Print)	Relatives/ friends	By visiting Deptt.	Web	Other Electronic Media	
1	Mandi	12.50	12.50	68.75	-	6.25	100
2	Shimla	16.67	33.33	50.00	-	-	100
3	Kangra	-	20.00	80.00	-	-	100
4	Sirmour	-	50.00	-	50.00	-	100
5	Solan	-	-	100	-	-	100
Total		10.00	20.00	63.34	3.33	3.33	100

Field survey.

Frequent visits of the officials to the field would certainly be beneficials in convincing the entrepreneurs of small scale and micro enterprises to supplement their income with



minimum investment especially, when a large financial assistance is available through various schemes being implemented by the Government.

5.4. Production of goods by Food Processing Units:

The volume/ quantity produced by any unit shows the potential/ capacity of that unit. According to the scale of production, the industries/ enterprises can be distinguished into big, small and micro level enterprises. In table 5 (Annexure-A) an attempt has been made to analyze the product group- wise annual production of enterprises established in the study area. It was noticed from the table that flour mills established in district Mandi (6 Nos.) and Kangra produced a total of 56,180 quintals of flour during 1st year of their establishment while in the year 2019-20 these units produced total 75,750 quintals of flour. Similarly, the production scale of industries/ units of fruits and vegetable group also increased and recorded to 19,580 quintals in the year 2019-20 against the production of 11,300 quintals which was produced by these seven small enterprises during the 1st year of their establishment. A similar trend in production has also been observed in the case of other products – groups, industries/ units i.e., cereals and pulses, meat and poultry processing and spice processing units etc.

5.4.1. Change in Production of the units:

The Government assistance to beneficiaries under the State Mission of Food Processing Scheme made it possible for owners of small and micro enterprises to adopt new technology or increase the capacity of their existing units. This helped the entrepreneurs to increase their scale of production as compared to its production capacity available before availing assistance under the schemes.

Tables 5.4 and 5.4.1 show the growth in production of food and vegetable processing units which was recorded at 73.27 percent in comparison of the total production of these units during 1st year of their establishment. Similarly, the production of other product - groups enterprises i.e., flour milling, cereals and pulses processing, and meat & poultry processing units etc. also increased by 34.83, 11.87, 34.3 and 34.83 percent, respectively.



The increasing production of these units indicates towards the success of the 'State Mission on Food Processing programme as the increase in production by units of beneficiaries also increased the income this was the result of the investment made by them during on establishment of their enterprises, especially under the scheme implemented under State Mission on Food Processing. Secondly, the increase in the production scale of units also reduced the manufacturing cost of the goods produced by these units that were finally sold to consumers in the market at a lower margin of profit. Therefore, this was a win- win situation for both entrepreneurs as well as consumers.

Table 5.4.1. presents the change in scale of production of the food processing enterprises producing juice, cider, edible oils, packed milk/ milk products etc. Table shows that milk processing plants achieved highest growth in production (442%) followed by fruits and vegetables units (145%) and oil milling enterprises, respectively.

Table: 5.4. Change in the production of Food Processing units (from 1st year of their establishment to the year of 2019-20) (in percent)

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and vegetables processing units	436	28.16	-	-	-	73.27
2.	Cereals and Pulses Processing Units	98	-	10.54	-	-	11.87
3	Flour milling units	34.14	-	36.36			34.83
4	Meat and Poultry Processing Units			19.13	1400		34.31
5	Spices processing Units	1050	-	3500			2683
	Overall	46.83	28.16	31.89	1400	-	40.20

Field survey



Table: 5.4. 1. Change in the production of food processing units (from 1st year of their establishment to the year of 2019-20) (In Percent)

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables Processing units	200	90	-	-	-	145
2	Oil Milling Processing Units	-	-	108.33	-	-	108.33
3	Milk Processing Units	-	-	-	11990	68.75	442

Field survey

5.5. Per unit production of food processing units established in study area:

Since the establishment year of these units to the year of 2019-20, the per unit production of different units belonging to various product -groups registered tremendous increase which is given in table 5.5 and 5.5.1. The Overall, per unit production of fruits and vegetable processing enterprises which was reported to 1614 quintal per unit during 1st year of the establishment of firms belonging to this product-group, increased remarkably, and recorded the level of 2,797 quintal per unit during the financial year 2019-20.

The average production of the units of flour and milling product- groups also increased and recorded 12,625 quintals per unit in 2019-20 against the average production of 9,363 quintals per unit which was recorded during 1st year of the establishment of these units. Similar trends were recorded in respect of other product-groups enterprises.

Table: 5.5: Per unit production of the Food Processing Units (In Quintals)

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables Processing units						
1.1	1 st year of operation	625	2010	-	-	-	1614
1.2	Financial year 2019-20	3350	2576	-	-	-	2797
2	Cereals and Pulses Processing Units						
1.1	1 st year of operation	8.33	-	2400	-	-	351
1.2	Financial year 2019-20	16.50	-	2653	-	-	393
3	Flour milling units						



1.1	1 st year of operation	7716	-	17600	-	-	9363
1.2	Financial year 2019-20	10350	-	24000	-	-	12625
4	Meat and Poultry Processing Units						
1.1	1 st year of operation	-	-	3240	36	-	1638
1.2	Financial year 2019-20	-	-	3860	540	-	2200
5	Spices Processing Units						
1.1	1 st year of operation	2	-	4	-	-	3
1.2	Financial year 2019-20	23	-	144	-	-	84
6	Overall						
1.1	1 st year of operation	19946	2010	4649	36	-	4576
1.2	Financial year 2019-20	29280	2576	6131	540	-	6416

Table: 5.5.1: Per unit production of the Food Processing Units. (In Litters)

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables Processing units						
1.1	1 st year of operation	20000	20000	-	-	-	20000
1.2	Financial year 2019-20	60000	38000	-	-	-	49000
2	Oil Milling Processing Units						
1.1	1 st year of operation	-	-	1,200	-	-	1,200
1.2	Financial year 2019-20	-	-	2,500	-	-	2,500
3	Milk Processing Units						
1.1	1 st year of operation	-	-	-	1,000	3,20,000	160500
1.2	Financial year 2019-20	-	-	-	12,0000	5,40,000	3,30,000

Field survey



As given in table 5.5.1, the per unit production of those units who produced the different types of Juices, cider, packed milk, oil milling etc. also increased two or three times as compared to their production during the establishment year of these units.

Hence, it can be inferred from the table that per unit production of the small and micro enterprises has increased over a period of time as is generally expected however, the adoption of modern technology by these units with the help of the assistance under the State Mission on Food Processing Schemes have helped in increasing the output at an accelerated rate. This was possible as the Government provided soft loan and other financial assistance to these sample beneficiaries under State Mission on Food Processing Scheme for upgradation of their units.



CHAPTER-6

BENEFIT AVAILED BY THE BENEFICIARIES' UNITS AND EMPLOYMENT GENERATED

The food processing units established in the State are not large enough to generate many employment opportunities for the skilled or semi-skilled labour force of the State. Most of the food processing units established in the State are micro and small in nature which have limited capacity to provide employment to a small number of persons. An attempt has been made in this chapter to know about the average employment created by the units established in the study area under State Mission of Food Processing Scheme in Himachal Pradesh.

6.1. Employment generated by Food Processing Units in study Area:

The sample small and micro enterprises (30 units) which were the beneficiaries of State Mission of Food Processing Scheme provided employment to 270 skilled/ semi-skilled persons during the financial year 2019-20 while only 196 persons were engaged in these enterprises during the initial year of their establishment (Table 4, Annexure-A). It can be inferred from the table that although these enterprises were not contributing by providing the employment to larger number of persons, but as and when the capacity of these units increased, the production and employment creation capacity of these units also increased.

6.2. Change in the Scale of employment:

The details of employment created by the units of different product-groups are given in table 4, Annexure-A. It is noticed from the table that the highest numbers of persons were engaged in food and vegetables processing units, followed by flour milling units, cereals and pulses units while least numbers of persons were engaged in spice processing units.

Table 6.1 presents the data of percentage change in the employment created by enterprises of different product -groups with the passage of time. The change in the employment has been analysed from the figures of employment created by these units during the year of their establishment and employment created in financial year 2019-20. The highest percentage change was registered in product group belonging to Meat and Poultry



Processing Units where employment has increased by 125 percent followed by product - groups of spices processing units, flour milling and fruits and vegetables product units, respectively where the employment has increased by 66.67 %, 62.86% and 33.98%, respectively. The overall, increase in employment in all product groups was recorded as 37.76 percent.

Table: 6.1. Change in employment in various product-groups units (from the establishment year of the units to the year 2019-20). (In percent)

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruit and vegetables processing units	18.00	23.46	-	-	-	33.98
2.	Cereals and Pulses Processing Units	12.50	-	33.33	-	-	15.79
3	Flour milling units	36.67	-	220			62.86
4	Meat and Poultry Processing Units			150	100		125
5	Spice processing Units	200	-	40			66.67
6	Oil Milling Processing Units	-	-	14.29	0	-	7.14
7	Milk Processing Units	-	-	-	80.00	0	26.67
8	Overall	42.11	23.46	77.27	85.70	-	37.76

Field survey

From the employment data of table 6.1, it can be inferred that there was positive correlation between the investment and employment creation, as with the passage of time, investment in various product- groups units increased and hence, employment given by these units has also increased.

6.3. Per Unit Employment Creation by Food Processing Units established in study area:

The per unit employment created in the units shown the nature and scope of the enterprises. The enterprises established in study area were giving average employment of only Nine persons in 2019-20 while the average employment given by these units during their



establishment year was very low and it was recorded at 6.53 persons per unit as presented in table 6.2.

The outcome of the table 6.2 also shows that per unit employment created by all the enterprises belonging to all the product -groups has increased significantly as compared to the per unit employment given by these enterprises during their 1st year of the establishment of the units.

Secondly, it was also inferred from the table that per unit employment creation of the enterprises belonging to fruit and vegetables product group was highest among all other product-groups as per unit employment of this group was recorded as 15.33 persons, followed by the processing unit of flour milling (9.50 persons), Milk processing (9.50 persons) and pluses and oil milling units (7.5 persons), respectively.

Thus, it can be inferred from the outcome of the table that if the investment support is provided to various product- groups enterprises as per the required demand the enterprises may produce the goods at their optimum level and the scale of production and employment creation by these units will definitely increase.

Table: 6.2: Per Unit Employment by Food Processing Units (No. of Persons)

S.No	Product- group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables						
1.1	1 st year of operation	7.33	13.50	-	-	-	11.44
1.2	Financial year 2019-20	12.67	16.67	-	-	-	15.33
2	Cereals						
1.1	1 st year of operation	2.67	-	3	-	-	2.71
1.2	Financial year 2019-20	3.00	-	4	-	-	3.14
3	Flour Milling						
1.1	1 st year of operation	6.00	-	5	-	-	5.83



1.2	Financial year 2019-20	6.83	-	16	-	-	9.50
4	Meat and Poultry						
1.1	1 st year of operation	-	-	2	2	-	2
1.2	Financial year 2019-20	-	-	5	4	-	4.50
5	Milk Processing						
1.1	1 st year of operation	-	-	-	5	10	7.50
1.2	Financial year 2019-20	-	-	-	9	10	9.50
6	Spices						
1.1	1 st year of operation	1	-	5	-	-	3
1.2	Financial year 2019-20	3	-	7	-	-	5
7	Pulses and Oil milling						
1.1	1 st year of operation	7	-	7	-	-	7
1.2	Financial year 2019-20	8	-	7	-	-	7.5
8	Overall						
1.1	1 st year of operation	4.75	13.50	4.40	3.50	10	6.53
1.2	Financial year 2019-20	6.75	16.67	7.80	6.5	10	9.00

Field survey.

6.4. Loaning facilities availed by the beneficiaries under Food Processing Scheme:

The table 6 (Annexure-A) presents the details of the loans made available to the beneficiaries covered under 'State Mission of Food Processing Scheme for strengthening the old infrastructure/or introducing new technologies in their already established plants and construction of cold stores for providing the cold storage facilities to food processing units etc. The table shows that total loans amounting to Rs. 744.65 Lakhs were provided to 30 beneficiaries. Out of the total loans which were made available to these units the sum of Rs 525.15 Lakhs was returned by these units while the sum of Rs. 219.50 is yet to be re-paid.



The table further shows that maximum loan of Rs. 269.40 Lakhs was received by the enterprises belonging to fruits and vegetables processing product- group, followed by flour milling product -group and milk processing product- group which had received the loans of Rs. 158 Lakhs and Rs. 130 Lakhs, respectively.

6.5. Per unit loan and outstanding loaning detail:

Per unit loan taken and loan repaid by the beneficiaries is given in table 6.3. The highest per unit loan was taken by the beneficiaries of Milk processing Unit (Rs. 65 lakhs) followed by pulses and oil milling (Rs. 42.50 Lakhs) fruit and vegetables (Rs. 29.93 Lakhs) and flour milling units (Rs. 26.33 Lakhs), respectively. Out of the total loan taken by each unit of different product -groups the per unit highest outstanding loan was due with the enterprises of the Milk Processing Unit (Rs. 33.25 Lakhs, each unit) followed by Flour Milling Units (Rs 9.16 Lakhs, each unit), pulses and oil milling (Rs. 8.00 Lakhs, each) and cereals processing units (Rs. 5.71 lakhs, each unit), respectively.

The spices units established in study area had availed the loans of worth Rs. 18.25 Lakhs per unit but loan taken was paid completely and nothing was due as outstanding loan.

**Table: 6.3: Per unit loan taken/outstanding loan to be repaid by beneficiaries
(In Rs. Lakhs)**

S. No.	Details of Processing Units	Loan Taken	Loan Repaid	Outstanding Loan
1	Fruits and Vegetables	29.93	25.71	4.22
2	Cereals	7.25	1.54	5.71
3	Flour milling	26.33	17.17	9.16
4	Meat and Poultry	7.50	5.50	2.00
5	Milk Processing	65.00	31.75	33.25
6	Spices	18.25	18.25	0
7	Pulses and Oil milling	42.50	34.50	8.00
8	Overall	24.82	17.51	7.31

Field survey



The Cereals Processing Units have yet to repay 78.82 percent of the total loan taken by them while the beneficiaries of Milk Processing Units and Flour Milling Units had to pay the 51.15 and 34.81 percent, respectively of the total loan taken by them.

Overall, 70.52 percent of the total loans had been repaid by the beneficiaries and only 29.48 percent of the total loan was outstanding which was being paid by beneficiaries in regular instalments.

It is inferred from the table that loans taken by the beneficiaries were mostly repaid by them in regular installments and no serious issue of defaulter was found.

Table: 6.4: Percentage of outstanding loan and repaid loan (In percent)

S. No.	Details of Processing Units	Total Loan Taken (%)	Loan Repaid (%)	Outstanding Loan (%)
1	Fruits and Vegetables	100	85.75	14.25
2	Cereals	100	21.18	78.82
3	Flour milling	100	65.19	34.81
4	Meat and Poultry	100	73.33	26.67
5	Milk Processing	100	48.85	51.15
6	Spices	100	100	0
7	Pulses and Oil milling	100	81.18	18.82
8	Overall	100	70.52	29.48

Field survey

Table 7 (Annexure-A) shows that 22 beneficiaries out of total 30 enterprises had repaid the total loan taken by them under State Mission of food Processing Schemes and only 8 beneficiaries had yet to repay some instalments of loan. It was reported by them that they were repaying the due installments of loans at regular intervals.

73.33 percent of the beneficiaries belonging to meat and poultry product -group had already repaid the total amount of loan taken by them while the remaining 26.67 percent of the beneficiaries were repaying it in regular instalments. As given in table 6.5 that 88.89 percent of the beneficiaries belonging to fruits and vegetables product- group had already repaid the



complete loan amount and no instalment were due for payment from their side while the 85.71 %, 66.67%, and 50% beneficiaries of cereals processing, flour milling, and meat and poultry product -groups, respectively had repaid the total loan amount taken by them.

All the beneficiaries of spice processing product -group (100%) had repaid the complete loan amount while 100 % beneficiaries belonging to Milk processing product -group were still paying regular instalments of the loan taken by them at regular intervals.

It can be inferred from the analysis that not a single beneficiary was reported who did not repay the due loan installment in time. This also shows the supply and demand match of the goods produced by these micro and small enterprises in the market in an indirect way.

Table: 6.5: Repaying regular/irregular instalment of loan by beneficiaries. (percent)

S. No.	Detail of Processing Units	Repaid Regular instalments	Repaid Irregular instalments	Paid total loan/ No instalment due for payment
1	Fruits and Vegetables	11.11	-	88.99
2	Cereals	14.29	-	85.71
3	Flour milling	33.33	-	66.67
4	Meat and Poultry	50	-	50
5	Milk Processing	100	-	-
6	Spices	-	-	100
7	Pulses and Oil milling	50	-	50
8	Overall	26.67	0	73.33

Field survey

6.6. Availability of the different facilities at the Units

The data of the three major facilities, i.e., availability of warehouse, cold storage and processing facilities were analyzed to know the infrastructure available in units established by the processing units of different product -groups. Table 6.6 presents that overall; 73.33% enterprises had the warehousing facilities available in their units while 66.67 percent and



46.67% of the enterprises had the availability of processing facilities and cold storage facilities in their respective units.

As far as product -group wise availability of these facilities was concerned, in this regard, it was noticed that all the enterprises belonging to fruits and vegetables product- group had availability the facilities of warehouses and cold storages while the processing facilities were available only in 22.22 percent of the sample units.

In the case of cereal and flour milling enterprises, the processing facilities were available in all the sampled units whereas the availability of warehouses was reported in the 100% and 71.43 of units % in the respective product- groups.

This can be inferred from the table that facilities of warehouses, processing, and cold storage etc. were developed/ strengthened by the beneficiaries with their own investment and the financial assistance/ loaning facilities made available by the Government under the State Mission on food Processing Scheme. The facilities increased their storage and processing as well as cold storage capacity which also finally helped them to supply their manufactured goods/produce in market as per the demand of market. By adopting this practice, they were able to fetch better returns on their goods from the market by capitalizing on economies of scale.

Table: 6.6: Availability of Facilities at the Units (In Percent)

S.No	Product group	Warehouse	Cold storage	Processing facilities
1	Fruits and Vegetables	100	100	22.22
2	Cereals	71.43	14.29	100
3	Flour Milling	100	-	100
4	Meat and Poultry	0	100	50
5	Milk Processing	0	100	100
6	Spices	50	0	50
7	Pulses and Oil milling	100	0	100
8	Total	73.33	46.67	66.67

Field survey



6.7. Supply Chain Facilities available for different food Processing Units:

The growth of the industry of any particular area is directly linked with the availability of the supply chain facilities in that area. The tables 6.7 and 6.7.1 present information collected for different components of the supply chain facilities available for the units established in study area. These included of availability of raw materials near the unit, availability of transportation facilities, availability of market for selling of goods produced by industries and the availability of the packing facilities within the unit or near the unit etc. The data depicted in table given below show that 100% sampled units had facilities of transportation available nearby their units established. This may have helped them to unload the required raw material for producing the goods, at the spot of the unit and similarly, they may have uploaded the manufactured goods from the site of the unit. This helped them to save on freight and transportation costs which finally helps to increase their net profit.

As far as the availability of the raw material is concerned, overall, 10% of the beneficiaries reported that it was available at the site of the units, and they had purchased nothing from a distant place while 56.67 percent of beneficiaries reported that they had purchased the raw material from about 50 km away from the site of the unit. 33.33 percent of the beneficiaries reported that raw material was available beyond 50 KM from the spot of their unit.

Similarly, 6.67% of total sampled beneficiaries, reported that marketing facilities were available near their unit, and they had not incurred much expenditure taking their product to market while 36.67 percent of the beneficiaries reported that market for selling of the goods produced by their units was available within a distance of 50 Km.

56.66 percent beneficiaries of all the product- groups reported that they had to sell their manufactured goods beyond a distance of 50 KM and for that they had to bear the transportation cost and wear and tear cost of their produce.

100% beneficiaries reported that packaging facilities were available in their units, and they did not have to go outside the units for the packing of the goods produced by their units.

**Table: 6.7: Availability of Supply Chain Facilities in various food Processing Units. (Percent)**

S.No.	Processing Unis	Supply Chain Facilities					
		Raw material			Transportation		
		At the Units	With in 50 KMs	Beyond 50 KMs	At the Units	With in 50 KMs	Beyond 50 KMs
1	Fruits and Vegetables	11.11	55.56	33.33	100	-	-
2	Cereals	14.29	57.13	28.58	100	-	-
3	Flour milling	16.67	66.66	16.67	100	-	-
4	Meat and Poultry	-	50	50	100	-	-
5	Milk Processing	-	100	-	100	-	-
6	Spices	-	-	100	100	-	-
7	Pulses and Oil milling	-	50	50	100	-	-
8.	Overall	10	56.67	33.33	100	-	-

Field Survey

Table: 6.7.1. Availability of Supply Chain Facilities in various food Processing Units (In percent)

S.No.	Processing Unis	Supply Chain Facilities					
		marketing			Packing		
		At the Units	With in 50 KMs	Beyond 50 KMs	At the Units	With in 50 KMs	Beyond 50 KMs
1	Fruits and Vegetables		11.11	88.89	100	-	-
2	Cereals	-	57.14	42.86	100	-	-
3	Flour milling	-	33.33	66.67	100	-	-
4	Meat and Poultry	50	50	-	100	-	-
5	Milk Processing	50	50	-	100	-	-
6	Spices	-	50	50	100	-	-
7	Pulses and Oil milling	-	50	50	100	-	-
8.	Overall	6.67	36.67	56.66	100	-	-

Field survey



6.8. Stock remained unsold at the end of the year out of total annual production of different Food Processing Units:

The demand for goods produced by the food processing units against the production/ the supply of the goods by these units in market has an important impact on the annual net profit earned by the firm. The higher the percentage of manufactured stock that remains unsold at the end of the year, lesser are the profits of the entrepreneurs in that ratio. The annual unsold stock of different product -groups is given in table 6.8. The table also shows the comparison of the annual unsold stock of these units during their 1st year of the production with that in 2019-20.

The data presented in the table 6.8 shows that 2.22% of the annual production of the goods produced by all the units, remained unsold in year 2019-20 while it was reported to 2.78% of total annual production when same was assessed for the 1st year of the establishment of these units. The figures for the stock of different product group remained unsold at the end of year showed that it was reported highest for oil milling units (2.50%) followed by fruits and vegetables units (2.45%), flour milling units (2.00%), cereals processing units (1.90%) and the lowest proportion was reported for the milk processing units (1.60%). It can be inferred from the table that although there was an improvement in unsold stocks produced by the different product-groups units but still there were further scope of improvement.

Further this was also reported by sampled entrepreneurs that most of the stock which was unsold at the end of the year was sold in the market, within in one or two months of the next year. The unsold stocks were reported as the production by firms in the month of march may not be sold in same month and certain percentage of the produced was sold in the month of April or May, which was reported in next year. An important finding that comes out of analysis is that the processing units were found to be producing at the optimum capacity to match market demand for their products.



Table: 6.8: The unsold stock in different product- group units at the end of the year.
(In Percent)

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables Processing units						
1.1	1 st year of operation	2.9	3.0	-	-	-	2.95
1.2	Financial year 2019-20	2.3	2.6	-	-	-	2.45
2	Cereals and Pulses Processing Units						
1.1	1 st year of operation	2.2	-	2.4	-	-	2.30
1.2	Financial year 2019-20	1.8	-	2.0	-	-	1.90
3	Flour milling units						
1.1	1 st year of operation	3	-	2.8	-	-	2.90
1.2	Financial year 2019-20	2	-	2	-	-	2.00
4	Meat and Poultry Processing Units						
1.1	1 st year of operation	-	-	3	3	-	3.00
1.2	Financial year 2019-20	-	-	2.5	2.7	-	2.60
5	Spices Processing Units						
1.1	1 st year of operation	2.5	-	3	-	-	2.75
1.2	Financial year 2019-20	1.9	-	2.1	-	-	2.00
6	Oil Milling Processing Units						
1.1	1 st year of operation	-	-	3.5	-	-	3.50
1.2	Financial year 2019-20	-	-	2.5	-	-	2.50



7	Milk Processing Units						
1.1	1 st year of operation	-	-	-	2.8	2.4	2.60
1.2	Financial year 2019-20	-	-	-	1.5	1.7	1.60
8	overall						
1.1	1 st year of operation	2.65	3.00	2.94	2.9	2.4	2.78
1.2	Financial year 2019-20	2.0	2.60	2.22	2.6	1.7	2.22

Field survey.

6.9. Wastage of raw material during annual production of the enterprises of different product groups:

The higher percentage of the wastage of the raw material indicates to the poor storage capacity of the units along with other factors. The higher wastage of raw material may also be noticed in those units which were using old technology to produce the goods. Table 6.9 presents the details of the information of the entrepreneurs of different product- groups and the percentage of the wastage of raw material noticed in these units. The wastage figures of these units show that overall, 5.3 % of the total of the raw material was wasted during the transportation, storage, and processing processes which had taken place during manufacture of the final product supplied into the market by the entrepreneurs. The wastage percentage of raw materials was reported much higher (7.2%) when it was analysed for the 1st year of the establishment of these units.

The highest wastage of raw materials was reported in case of fruits and vegetables processing units, where 7.5% of the total raw materials was gone wasted in the year 2019-20, while the waste ratio of raw material during the 1st year of the establishment of the units of this product group was reported to 8.8%. The lowest wastage of raw materials was reported in milk processing units where only 2.6% of the total raw material available for the final production of the milk products had gone waste in 2019-20, while wastage ratio during 1st year of the establishment of units of milk processing plants was reported as 4.2%.

**Table: 6.9: wastage of raw materials in different product -groups units. (In percent)**

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables Processing units						
1.1	1 st year of operation	8.6	9.0	-	-	-	8.8
1.2	Financial year 2019-20	7.4	7.6	-	-	-	7.5
2	Cereals and Pulses Processing Units						
1.1	1 st year of operation	7.2	-	7.4	-	-	7.3
1.2	Financial year 2019-20	5.8	-	5.4	-	-	5.6
3	Flour milling units						
1.1	1 st year of operation	8.6	-	8.8	-	-	8.7
1.2	Financial year 2019-20	7.2	-	7.0	-	-	7.1
4	Meat and Poultry Processing Units						
1.1	1 st year of operation	-	-	5.2	5.0	-	5.1
1.2	Financial year 2019-20	-	-	3.4	3.6	-	3.6
5	Spices Processing Units						
1.1	1 st year of operation	6.8	-	7.0	-	-	6.9
1.2	Financial year 2019-20	5.1	-	5.3	-	-	5.2
6	Milk Processing Units						
1.1	1 st year of operation	-	-	-	4.0	4.4	4.2
1.2	Financial year 2019-20	-	-	-	2.5	2.7	2.6
7	Oil milling processing units						
1.1	1 st year of operation	-	-	5.5	-	-	5.5
1.2	Financial year 2019-20	-	-	4.5	-	-	4.5
8	Overall						
1.1	1 st year of operation	7.8	9.0	6.9	4.5	-	7.2
1.2	Financial year 2019-20	6.4	7.6	5.1	3.1	-	5.3

Field survey



It can be concluded from the table that the waste percentage of raw materials of all the units was a little high and can be reduced with the use of technology and application of innovative management techniques. However, it declined over the years where the operation of their units started getting streamlined.

This also indicates poor quality of warehousing capacity, cold storage techniques and use of old technology for the processing of raw material by these food processing units.

This was also noticed that wastage of raw materials was reduced with the passage of time. This indicated that after availing the loan/ other government incentives by these entrepreneurs the infrastructure of these units had improved and because of that the wastage percentage of the raw materials declined.



CHAPTER-7

PROBLEMS FACED BY FOOD PROCESSING ENTREPRENEURS, AND THE PROPOSED POLICY MEASURES/SUGGESTIONS

The Food processing or food manufacturing companies transform horticultural, agricultural and livestock products into a processed product by using various techniques including grading, sorting, packing etc. which enhance the shelf life of food products and the value enhancement of original product. Processing also helps in generating rural employment and income of farmers and small and micro entrepreneurs.

The presence of good food processing infrastructure is an essential component to attract major companies to invest in State. Though there are many promising dynamics which support good growth of the industry in state but, there are still some significant constraints, which if not addressed, sooner or later can impede the growth prospects of the Food Processing Industry.

One of the biggest constraints is that food industry is a capital-intensive industry by its nature, and it creates a strong entry barrier and allows limited number of players to enter in the market. The other major constraints for the growth of the State Food Processing Industry are the absence of adequate infrastructure or availability of poor infrastructure particularly maintenance of the rural roads, which are the only means of taking the raw material to plant site. Other constraints include absence of cold chains, inadequate information and market linkages, suboptimal function of the available cold-storages. Other major constraint is use of poor-quality control methods for ensuring quality standards for processing and packing of processed food. High processing cost and the low availability of credit are also the problems which are faced by the small and micro entrepreneurs in State.

7.1. Major Problems faced by small and micro entrepreneurs of Food processing Industry in HP:

1) Food production and Processing:

A very small share of total production of horticultural and agricultural produce in state was used for processing purposes. This is because of weak processing infrastructure



available in State. Moreover, the number of units established in the State is very small and the processing capacity of most of these units is also very small.

II) Location of the Industries:

The entrepreneurs mostly established the industries by taking following things into consideration i.e. well maintained roads and all-weather road connectivity. Secondly, availability of the raw materials & skilled manpower at one place. But mountainous topography of State makes it almost impossible to get all these facilities together. It is seen that most of the food processing plants are established away or at distant place from the spot of availability of the raw materials. This adds to the total cost of production as the transportation cost of raw material has to be borne by the entrepreneurs which reduces their profit.

III) Non- availability of skilled labour at cheaper rate:

The availability of cheap labour is also a big issue in Himachal Pradesh. The per capita income of the people of State is very good and most of the labour preferred to serve in Government set up also, a large share of the labour force is engaged in horticulture, agriculture, animal husbandry activities. They are habitual to live in villages and don't want to leave the village to work at a far-off place. A small percentage of skilled labour with professional degrees, preferred to serve in large units getting handsome annual packages from various multinational companies located outside the State. Small and micro units within the State have limited paying capacity and are not able to pay heavy salaries to employees engaged in the units. It is also seen that a good share of the labour engaged in these units are belonged to the States other than Himachal Pradesh.

IV) Use of Outdated Technology:

The technology plays a very big role in transportation, storage, processing, preserving, grading and packing activities. Most of the food processing units established in State are micro and small in nature. Their investment capacity to spend on new technology is limited and most of them are using old technology. It increased the processing cost of goods produced by these units and it has also been noticed that techniques followed for packing and grading of the goods was also sub-standard. This not only reduced the profit of the units but also minimised the expansion plans of these units.

**V) High wear and tear cost:**

More than 2/3rd area of the State is characterized by hilly topography and a market for selling the manufactured/ processed goods is not available near the units rather it is available at a distant place. Further, the quality of the roads leading to the market is also not good which increases cost of goods in terms of wear and tear during transportation of manufactured goods to market by trucks/pickup/ refrigerates trucks/ big trailers etc.

VI) High Transportation Cost:

Most of the units established are facing the problem of rail connectivity. In the absence of this facility the entrepreneurs have to bear the high transportation to take their manufactured to market.

VII) High Processing Cost:

There is inverse relationship between processing cost of the goods and processing capacity and the use of the modern technology by the units. Higher the processing capacity of the unit the lower the processing cost and vice versa and same relationship is seen between processing cost and new technology if it is used by processing units. But it is seen that most of the food processing firms/ units established in State are micro and small in nature and their processing capacity is also very low. It increased the processing cost and reduced the net margin of entrepreneurs.

VIII) High raw material wastage rate:

The low capacity of warehouses and cold storages adversely affect the raw material collected from the field/ farmers. As the raw materials used for food processing purpose are perishable in nature thereby it required proper ventilation in warehouses and sufficient cold storage facilities so that the quality of raw materials could be maintained before it used for processing purpose. Absence of the required number of warehouses and cold storage has resulted in high processing raw material wastage.

IX) Poor Training/ untrained labour:

Most of the labour engaged in food processing units are found to be poorly paid and they were mostly untrained and unskilled. The Department of Industries had given training to very few workers as reported in table no. 10 (Annexure-A). Most of the



labour engaged in these units are trained by entrepreneurs themselves at their own cost and training given to them was not up to the mark as they trained them in minimum possible time and taught them just to operate the processing and grading machines/equipment. They are not well trained and don't know the skills necessary for quality processing.

X) Poor quality standard in processing and packing process:

The poor-quality control methods for ensuring quality standards for processing and packaging the food adversely affected the demand of processed goods for more health-conscious public. Presently, there is an increasing trend of a shift from food security to nutrition security and convenience shopping. Therefore, the role of quality and packaging of processing food become prominent factor to accelerate the demand.

XI) Poor cold chains:

The horticultural, milk product and prepared food products require the facilities of freezer van/ vehicle which are available in very few units and secondly their number is very less. Because of this problem, these goods/ products have to be sent to the market in small instalments which require time. As these products are perishable in nature, these products need to be supplied in market in minimum possible time and any time lag in this regard may increase the possibility of losses to the entrepreneurs.

XII) Less availability of credit:

The production scale of the food processing industries is very small and by assessing the annual turnover and production capacity of these firms, banks and other financial institutions offer loaning facilities to these units. The low availability of credit remains a major problem as entrepreneurs are not able to replace old machinery and equipment nor are they able to establish new units/ expand the old plant. This ultimately increases the cost of processing and reduces the margin of entrepreneurs.

7.2. Suggestions:

I) Slew of measures to revamp the food processing industrial sector to the next level:

The State Government has recently announced various measures to promote industrialization in the State. The state Government has started online application filling for speedy approvals to promote ease of doing business in the State. The State



Government has also set up an Advisory Council to ensure better involvement and interaction with industrial stakeholders. Further, projects having an investments scale of above Rs. 10 crores are approved by State Level Single Window Clearance & Monitoring Authority. Still there is further scope of improvement. A land bank is required to be developed/ prepared in various regions of the State so that as per the demand and nature of the industry land may be made available to entrepreneurs without any delay. It is seen that land identification and transferring of the land in the name of the entrepreneurs takes very long time. Sometimes it takes about 2-3 years. The lengthy process of transferring of land frustrated the investors and sometime investors decided that it is better to quit. There is an urgent need to take policy measures which may lead to attract high level of investment in food processing industry in the A fully automated interactive platform is required to be provided to the investors. This will cut short the unnecessary efforts of investors resulting in increase in the number of investors and investment would in the State. High level of the investment will bring new technology which would increase the processing capacity of units and quality of production.

ii) Location of the Industries:

Most of the food processing industries in State are located in areas nearby/ adjoining Punjab and Haryana. The transportation cost of raw materials of these units are very high as it is transporting from distant place. The major reason for establishing of these industries in certain region/areas of state is that these areas are located near market which is important factor for selling of manufactured goods of enterprises. Secondly, the roads of the rural areas of State are not in good condition and require maintenance and widening so that entrepreneurs may also prefer to establish the processing units in rural areas of State. Rural infrastructure needs improvement to locate these industries near spot of availability of raw materials. Cold chains are also needed to be established to minimize the transportation costs.

III) Rail connectivity:

The absence of rail connectivity increases the transportation cost of the processing goods as the freight charges of railways are lesser than transportation costs by road



through trucks/ pickup/freezer van etc. The State Government needs to strongly take up the issue with the Central Government to expand the railway network in State.

IV) High raw material wastage rate:

To minimise the wastage of the raw materials storage capacity of warehouses, availability of refrigerating vans, cold storage capacity, and processing capacity of the units need to be enhanced. An intervention is required from the Government to ensure that credit is available easily to small and micro enterprises.

V) suggestion on Marketing grading and Packing:

The technology plays a very big role in transportation, storage, processing, preserving, grading and packing activities. Most of the food processing units established in State are micro and small nature. Their investment capacity to spend on new technology is limited and for adoption of new technology by these units is only possible by increasing their investment capacity. The investment capacity of these units can be increased by providing credit facilities at low interest rates to the enterprises by banking institutions. Centre/ State Government may issue directions/ may give the loaning targets to banking institutions to provide easy loan to entrepreneurs for adoption of new technology or extension of the infrastructure of industrial plants. The standardized grading and packing of goods will increase the demand for processed goods and it will also increase the return of entrepreneurs.

VI) Food testing System:

State laboratory must have an affiliation with the National Accreditation Board for Testing and Calibration Laboratories (NABL) and should participate in a proficiency test for accurate and credible result.

VII) Supply Chain efficiencies:

To address supply chain inefficiencies, seamless post -harvest infrastructure is required to be created. Further, multiple licences and other authorities are involved for setting up cold chain infrastructure across the State. The regulation of these agencies varies from State to State. Hence, model guidelines are required to be framed to make the statutory and uniform regulation guidelines across all States. In this regard, Government of India must take the necessary initiatives.

**VIII) Use of wasted material by manufacturing the by- products:**

By- products are versatile and arise from a variety of products and processes. For instance, a great amount of pomace is generated during juice processing, bran, hull, husk, or pods are obtained during grain milling. The significant research has been reported on strategies to convert the food waste into more value-added products, including incorporating them into different foods, fractionation into various components and extraction of components from the waste. These Techniques need to be popularised among the enterprises.

IX) Training to labour force:

For the improvement of the skill of the labour force engaged in food processing industries of State periodic trainings should be given. Government should take the initiatives as it is seen that very few numbers of workers are trained by Government institutions. As the labour engaged in food processing industries is not well trained, that is why they are unable to get good salaries from the entrepreneurs and similarly, they are not even well aware about the latest technology.

X) Public Private Partnership for development of Infrastructure:

The State Government has limited scope to invest in Roads and Railways infrastructure. One of the ways by which infrastructure can be improved in State is via inviting public private partnership (PPP) in infrastructure.

XI) Establishment of Food Parks:

Big industrial houses are required to be invited and facilitated to come forward for establishing Food Parks and Processing units in Himachal Pradesh.

XIII) Areas for further reforms:

Some of the States have shown a commendable pace in bringing reforms to attract investors, while Himachal Pradesh is relatively slow. The State needs to bring in reforms to further simplify the procedure involved in land, labour, single window clearance and information enablers. The State officials/ officers should visit other States to understand their best practices and also to understand the process of the implementation of these practices in Himachal Pradesh.



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Master Tables (Annexure- 'A')

Table: 1: Location-wise selection of the sample of Food processing units in Study Area:
(In Nos.)

S.No.	Districts	Location			Overall
		Rural	Urban	Tribal	
1	Mandi	09	07	-	16
2	Shimla	06	-	-	06
3	Kangra	05	-	-	05
4	Sirmour	02	-	-	02
5	Solan	01	-	-	01
Total		23	07		30

Table:2: Product Group-wise selection of Food Processing units in Study area:
(In Nos.)

S.No	Product Group	Mandi	Shimla	Kangra	Sirmour	solan	Total
1	Fruits and Vegetables	3	6	-	-	-	9
2	Cereals	6	-	1	-	-	7
3	Flour Milling	5	-	1	-	-	6
4	Meat and Poultry	-	-	1	1	-	2
5	Milk Processing	-	-	-	1	1	2
6	Spices	1	-	1	-	-	2
7	Pulses and Oil milling	1	-	1	-	-	2
8	Total	16	6	5	2	1	30

**Table: 3: Reach through various publicity media: (In Nos.)**

S. No.	Districts	Mode through which information of Government schemes reach to the beneficiaries					
		Deptt. Publicity (Print)	Relatives / friends	By visiting Deptt.	Web	Electronic Media	Total
1	Mandi	2	2	11	-	1	16
2	Shimla	1	2	3	-	-	6
3	Kangra	-	1	4	-	-	5
4	Sirmour	-	1	-	1	-	2
5	Solan	-	-	1	-	-	1
Total		3	6	19	1	1	30

Table: 4: Employment generated by Food Processing Units in study area:

(Nos. of Persons)

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables						
1.1	1 st year of operation	22	81	-	-	-	103
1.2	In Financial year 2019-20	38	100	-	-	-	138
2	Cereals						
1.1	1 st year of operation	16	-	3	-	-	19
1.2	In Financial year 2019-20	18	-	4	-	-	22



3	Flour Milling						
1.1	1 st year of operation	30	-	5	-	-	35
1.2	In Financial year 2019-20	41	-	16	-	-	57
4	Meat and Poultry						
1.1	1 st year of operation	-	-	2	2	-	4
1.2	In Financial year 2019-20	-	-	5	4	-	9
5	Milk Processing						
1.1	1 st year of operation	-	-	-	5	10	15
1.2	In Financial year 2019-20	-	-	-	9	10	19
6	Spices						
1.1	1 st year of operation	1	-	5	-	-	6
1.2	In Financial year 2019-20	3	-	7	-	-	10
7	Pulses and Oil milling						
1.1	1 st year of operation	7	-	7	-	-	14
1.2	In Financial year 2019-20	8	-	7	-	-	15
8	Total						
1.1	1 st year of operation	76	81	22	7	10	196
1.2	In Financial year 2019-20	108	100	39	13	10	270



Table: 5: Production of goods by Food Processing Units in Study Area (in Quintals)

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables Processing units						
1.1	1 st year of operation	1,250	10,050	-	-	-	11,300
1.2	In Financial year 2019-20	6,700	12,880	-	-	-	19,580
2	Cereals and Pulses Processing Units						
1.1	1 st year of operation	50	-	2,400	-	-	2,460
1.2	In Financial year 2019-20	99	-	2,653	-	-	2,752
3	Flour milling units						
1.1	1 st year of operation	38,580	-	17,600	-	-	56,180
1.2	In Financial year 2019-20	51,750	-	24,000	-	-	75,750
4	Meat and Poultry Processing Units						
1.1	1 st year of operation	-	-	3,240	36	-	3,276
1.2	In Financial year 2019-20	-	-	3,860	540	-	4,400
5	Spices Processing Units						
1.1	1 st year of operation	2	-	4	-	-	6
1.2	In Financial year 2019-20	23	-	144	-	-	167
6	Overall						
1.1	1 st year of operation	39,892	10,050	23,244	36	-	73,222
1.2	In Financial year 2019-20	58,572	12,880	30,657	540	-	1,02,659



Table: 5.1: Production of Juices, Oil and Milk products by Food Processing Units in Study Area
(In Litters)

S.No	Product group	Mandi	Shimla	Kangra	Sirmour	Solan	Total
1	Fruits and Vegetables Processing units						
1.1	1 st year of operation	20,000	20,000	-	-	-	40,000
1.2	In Financial year 2019-20	60,000	38,000	-	-	-	98,000
2	Oil Milling Processing Units						
1.1	1 st year of operation	-	-	1,200	-	-	1,200
1.2	In Financial year 2019-20	-	-	2,500	-	-	2,500
3	Milk Processing Units						
1.1	1 st year of operation	-	-	-	1,000	3,20,000	3,21,000
1.2	In Financial year 2019-20	-	-	-	1,20,000	5,40,000	6, 60,000

Table: 6: Repayment of Loan taken by beneficiaries
(In Rs. Lakhs)

S. No.	Details of Processing Units	Total Loan Taken	Loan Repaid	Outstanding Loan
1	Fruits and Vegetables	269.40	231.40	38.00
2	Cereals	50.75	10.75	40.00
3	Flour milling	158.00	103.00	55.00
4	Meat and Poultry	15.00	11.00	4.00
5	Milk Processing	130.00	63.50	66.50
6	Spices	36.50	36.50	0
7	Pulses and Oil milling	85.00	69.00	16.00
8	Overall	744.65	525.15	219.50

**Table: 7: Repaying regular/irregular instalment of loan by beneficiaries. (in Nos.)**

S. No.	Detail of Processing Units	Repaid Regular instalments	Repaid Irregular instalments	Paid total loan/ No instalment due for payment
1	Fruits and Vegetables	1	-	8
2	Cereals	1	-	6
3	Flour milling	2	-	4
4	Meat and Poultry	1	-	1
5	Milk Processing	2	-	-
6	Spices	-	-	2
7	Pulses and Oil milling	1	-	1
8	Overall	8	0	22

Table: 8: Availability of Facilities at the Units (Nos.)

S.No	Product group	Warehouse	Cold storage	Processing facilities
1	Fruits and Vegetables	9	9	2
2	Cereals	5	1	7
3	Flour Milling	6	0	6
4	Meat and Poultry	0	2	1
5	Milk Processing	0	2	2
6	Spices	1	0	1
7	Pulses and Oil milling	1	0	1
8	Total	22	14	20

**Table: 9: Availability of Supply Chain Facilities in various food Processing Units. (In Nos)**

Processing Unis	Supply Chain Facilities					
	Raw material			Transportation		
	At the Units	With in 50 KMs	Beyond 50 KMs	At the Units	With in 50 KMs	Beyond 50 KMs
Fruits and Vegetables	1	5	3	9	-	-
Cereals	1	4	2	7	-	-
Flour milling	1	4	1	6	-	-
Meat and Poultry	-	1	1	2	-	-
Milk Processing	-	2	-	2	-	-
Spices	-	-	2	2	-	-
Pulses and Oil milling	-	1	1	2	-	-
Overall	3	17	10	30	-	-

Table: 9: Availability of Supply Chain Facilities in various food Processing Units. (Continue-----) (In Nos.)

Processing Unis	Supply Chain Facilities					
	marketing			Packing		
	At the Units	With in 50 KMs	Beyond 50 KMs	At the Units	With in 50 KMs	Beyond 50 KMs
Fruits and Vegetables		1	8	9	-	-
Cereals	-	4	3	7	-	-
Flour milling	-	2	4	6	-	-
Meat and Poultry	1	1	-	2	-	-
Milk Processing	1	1	-	2	-	-
Spices	-	1	1	2	-	-
Pulses and Oil milling	-	1	1	2	-	-
Overall	2	11	17	30	-	-

**Table: 10: Trainings to Food Processing beneficiaries (Nos. of Persons)**

S. No.	Details of Processing Units	Training provided By Department	Training by beneficiaries at its own	Whether Training beneficial	Training not beneficial
1	Fruits and Vegetables	-	9	9	-
2	Cereals	1	6	5	2
3	Flour milling	1	5	5	1
4	Meat and Poultry	1	1	1	1
5	Milk Processing	1	1	1	1
6	Spices	-	2	2	-
7	Pulses and Oil milling	-	2	2	-
8	Overall	4	26	25	5



Annexure- 'B'

SCHEDULE FOR EVALUATION STUDY ON FOOD PROCESSING SCHEME

(For Beneficiary)

I) Location

- a. Rural b. Urban c. Tribal

II) Sector(s)

S. N.	Sector(s) → Organization ↓	Fruits & Vegetables Processing	Milk /Meat/ Poultry/ Fish Products Processing	Cereals/ Other Consumer Products Processing	Rice/ Flour/ Pulses/ Oil Milling Processing	Food Flavours, Colours, Oleoresins, Spices, Coconut, Mushrooms, Wines and Hops Processing	Skilling
a	Govt						
b	PSU						
c	Joint Venture						
d	NGOs						
e	Cooperatives						
f	SHGs						
g	Pvt. Ltd.						
h	Individuals						

III) From where you got the information about the scheme:

- a) Departmental Publicity (Print) b. Relatives/Friends
 c. By visiting the department d. Web e. Electronic Media



IV) Project Operation:

After how many months project implementation was started?
 from the date of the issue of approval letter month(s)

V) Information regarding the unit

Year of establishment of Unit	Status of Unit With Govt. assistance	Monthly average quantity of raw material (in quintals)	Wastage of monthly average quantity of raw material in the unit. (In quintals)				Whether the unit is functional at full capacity.	
			Procured	Used	At the end of 1 st year	At the end of 2019-20	Yes	No

VI) Whether technology upgraded

With government's assistance Yes No

If yes, capacity utilization of the unit			
After the 1st year of operation of unit		At the end of 2019-20	
Installed	Utilized	Installed	Utilized

VII) Production (In Quintals):

At the end of 1st year of operation of unit	At the end of 2019-20



VIII) Facilities at the Unit

- a. Warehouse b. Cold Storage
- c. Processing Facility

d. Whether Supply Chain Facility is Available:

1.	Raw Material	At the unit <input type="checkbox"/>	Within 50 kms <input type="checkbox"/>	Beyond 50 kms <input type="checkbox"/>
2.	Transportation	At the unit <input type="checkbox"/>	Within 50 kms <input type="checkbox"/>	Beyond 50 kms <input type="checkbox"/>
3.	Packaging	At the unit <input type="checkbox"/>	Within 50 kms <input type="checkbox"/>	Beyond 50 kms <input type="checkbox"/>
4.	Marketing	At the unit <input type="checkbox"/>	Within 50 kms <input type="checkbox"/>	Beyond 50 kms <input type="checkbox"/>

e. Percentage of unsold stock to total stock

At the end of 1st year of operation of unit	At the end of 2019-20

IX) Employment Information

No. of persons employed		Man-days generated	
At the end of 1st year of operation of unit	At the end of 2019-20	At the end of 1st year of operation of unit	At the end of 2019-20

X) Training

a)

Whether the department has imparted Training		Method of training			Whether training beneficial	
Yes	No	On field	Off field	Both	Yes	No



b) Is unit also providing training Yes No

if yes,

On its own	Has tied up with government	
	Name of the department	Scheme

Suggestion for improvement in Training-----

XI) Repayment of loan (Rs. In Lakhs)

Total loan taken.	Loan Repaid	Outstanding Loan	Whether paying regular instalments.	
			Yes	No

If not, paying regular instalments, please give reasons

XI) Do you want the scheme to continue in future

Yes,

No



if no, reasons thereof,

.....
.....

XII) Suggestion of the beneficiary for improvement of the scheme

.....
.....

Name of the investigator

Date of inquiry

Time taken in inquiry

Signature of the investigator

XIII) Supervisor's observation/report

.....

Name of the supervisor

Designation

Date of visit

Discrepancy observed/report

Signature of the supervisor



Separate sheet for personal Information

Name and Address of processing unit

- a. Name
- b. Village/City/Town
- c. Gram Panchayat
- d. Development Block
- e. Tehsil
- f. District