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SLUP

(STATE LEVEL UPGRADATION PLAN)

for

DIMAPUR DISTRICT
IN THE STATE OF NAGALAND

Prepared by

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Executive Summary

Dimapur is the 8th district of Nagaland established in December 1997 and lies between 25°48' and 26°00'North latitude and 93°30' and 93°54' East longitude. The district is bounded by Assam on its North and West, Kohima on the East, and Peren district on the South. The district comprises four blocks and 11 agricultural circles with an area of 927 square km. The main crops of the district are Bananas, Mango, Litchi, Beans, Cabbage, Green chili, Potato, leafy vegetables, Tapioca, Tomato, and Mushroom. In the Dimapur district area under agriculture crops are 61% and the remaining 39% of the area is under horticulture crops.

Pineapple is the ODOP of the district. However, the processing activity is very low which is similar to those districts that produce pineapple crops in the state. Dimapur district is the largest producer of the pine apple crop in 3000 Ha with the production of 35000 MT. The highest processing of pineapple in the district is for manufacturing pineapple candy and pineapple juice.

From the primary survey, it is observed that there are few household and micro-processing units in the district processing approximately 700 MT of pineapple into candy and juices.

Based on the primary observation of micro and small enterprises the major bottlenecks identified and recommendations/ Insights are briefed below-.

1. Lack of proper machinery for processing: Approximately 60% of the 38 enterprises are processing at the household level with the traditional method and manual method of processing. Basic processing machines such as sorting and grading machines, fruit washing troughs, Dryer, Fruit cutters, core removal, and packaging machinery would reap huge benefits for these enterprises. Amount of INR 15.1 cr. Is proposed to upgrade the individual and group units in the district.

2. Lack of common infrastructure facilities: From the primary survey it is observed that there are no common infrastructure facilities for the processing units in the district. There are high losses in the pineapple crop due to a lack of proper transport connection within the district and to another district, lack of proper primary process facilities, and lack of pack houses in the district. Installation of the common infrastructure facilities like reefer vans, pack houses, and primary processing facilities for the ODOP and the Non ODOP processing units in the district is a huge boost as it reduces the loss of the product in transportation and brings more enterprises into the processing.

3. Lack of marketing linkages: A very common problem observed across all the enterprises was that retail sales are happening locally within the Taluka and the enterprises don't have any idea where to market the product except in the taluka. "Thanogeulhi doungel" is a household pineapple processor in the district that processes 700 kgs of pineapple juice and 150 kgs every season selling the product in the local market as there is no proper support for marketing the processed product in the district. The solution is to link the markets in other districts and states, which can be achieved through participation in trade fairs and exposure visits. It is suggested to provide training on branding and marketing of the

processed products to the existing and new groups and individual units in the district. A fund of 1.5 cr. is proposed in the district for training the beneficiaries on branding and marketing of the products.

4. Lack of registration: From the primary survey it is observed that almost 50% of the 38 ODOP processing units are unregistered in the district. It is suggested that the District industries center (DIC) encourage the registration of the processing enterprises in the district to avail the benefit from the administration.

5. Food testing labs: As observed in the primary survey, 38 enterprises processing the ODOP in the district are interested to take their Business to the next level through Branding and Quality control but one of the major roadblocks they are experiencing is the lack of accredited food testing agencies at Dimapur. Currently, all the processing enterprises in the district are selling the produce to the retailers and consumers in the district without any FSSAI license or other food safety certification.

Proposed fund allocation:

Proposed fund allocation for upgrading the existing and new enterprises in the district		
Proposed fund allocation for Dimapur District		
Intervention	**Target**	**Amount (Cr.)**
Capital investment in plant and machinery (Individual units)	To upgrade and scale up the production process for 123 Micro Units (The average fund required per unit is 12.61 lakh)	15.5
Capital investment in plant and machinery (Group units)	To upgrade and scale up the production process for 12 Groups (The average fund required per unit is 12.61 lakh)	1.55
Incubation center	One incubation center (IC) is proposed for the district.	2.75
Common infrastructure	One common infrastructure facility (CIF) is proposed for the district	4
Branding and Marketing	Common Branding and Marketing for both Individual units and Groups	1.4
Training and Mentorship	Training and Mentoring for Entrepreneurship. Training on New Technology for a total of 122 individuals. (2 people to be trained from each enterprise/group)	0.14
Total		**25.34**

Government assistance for the proposed fund for upgrading enterprises in the district					
Intervention	**Target No. of units**	**Project cost per unit (Lakhs)**	**Total Cost (Lakhs)**	**Subsidy**	**Subsidy (Lakhs)**
Capital Investment in Plant & Machinery (Individual units)	123	12.61	1551.03	35%	542.86
Capital Investment in Plant & Machinery (FPO/SHG/ Cooperatives)	12	12.61	151.32	35%	52.96
Common Infrastructure	1	400	400	35%	140
Incubation Cum Custom Hiring Centre	1	275	275	100%	275
Branding & Marketing (Total no. of Units/group)	135	1.03	140	50%	70
Training & Mentorship	135	0.14	0.14	100%	0.14
Total			**2517.4**		**1080.84**

Conclusion- By 2025, with the support of the PMFME scheme, the processing percentage of respective commodities may go up. Nearly, 550 to 650 new employments will be generated, the income level of micro and small entrepreneurs may increase by 30% to 40% (approximately), better price realization can be captured for processed commodities, and local products may reach different parts of India as well as World.

PROJECT METHODOLOGY

This chapter explains the study area, sampling techniques, and different tools and techniques used for analyzing the collected data. The methodology adopted for the present study is presented in the following sections.

1. Study area
2. Sampling Technique adopted
3. Nature and sources of data
4. Analytical tools and techniques used

Study Area

The study on State Level Up-gradation Plan is conducted in the entire Dimapur district of Nagaland state of India.

Sampling Technique and Sample Size adopted

Sampling Technique - Multistage random sampling technique was adopted.

Sample Size:

38 ODOP and Non-ODOP enterprises are covered in the primary survey in the district.

Nature and sources of data

Both primary and secondary sources of data are collected for this study.

Primary Data

India is one of the leading producers and processors of Pineapple. Pineapple processing has undergone a lot of developments from traditional to modern processing. The survey was conducted in various pineapple processing units located in the Dimapur district. In the process of the primary survey, we met different unit holders registered and unregistered, farmers, agriculture department officials, horticulture department officials, raw material suppliers, skilled labor, district industries center officials, farmer producer organizations, retailers, logistics officials concerned, etc., and gathered the necessary information like the availability of raw materials, year on year production, varieties cultivated, problems facing by them, production process and the technology adopted by unit holders, availability of skilled labor and their wages, range of products, value chain, the testing methodology adopted by them, packaging, marketing, exports and other information from them.

Secondary Data

The secondary data is collected from various sources like DICGS annual report, Nagaland Statistical Handbook, APEDA, Indiastat.com, Journals and articles, and other internet sources to know the area, production, export, and import of pineapple.

Analytical tools and techniques used

Tabulation of Collected Data, Percentage Analysis, and Graphical Solutions was used to get a comprehensive picture and analysis of the Data. After the data has been collected, it has been interpreted and presented to arrive at conclusions.

I.
Base line assessment Studies

I. Baseline Assessment studies:

Dimapur is the 8th district of Nagaland established in December 1997 and lies between 25°48' and 26°00'North latitude and 93°30' and 93°54' East longitude. The district is bounded by Assam on its North and West, Kohima on the East, and Peren District on the South. The district comprises four blocks and 11 agricultural circles with an area of 927 square km.

Dimapur District is the most populous district in Nagaland, with a total population of 3,79,769. The proportion of its population to the State population was 19.17%. Dimapur district has shown a decline in rural male residents by 9% and an increase by 27.96% in the female population during the last decade.

There is a sizable population of non-tribals living in the town areas. Although the notified town of Dimapur district has remained the same, the neighboring villages /settlement have expanded considerably over the years merging with town boundaries to form a length of more than 13 km. In addition, there is a sizeable rural population in the Subdivision of Niuland, Kuhuboto, Dhansiripar, and Medziphema blocks. The Niuland, Kuhuboto blocks are dominated by the Sema tribe, and Dhansiripar by different groups of people like Chakesang, Sema, Angami, Nepalese, Amalumba, Ao, etc. Medziphema sub-division is dominated by Angamis.

District highlights

Table 1: District Highlights

Description	Information at a Glance
Position of the District in terms of Population	1st Place (378811)
Position of the District in terms of Area	10th place (927 sq. km.)
Position of the District in terms of Density of Population	11th place (409 persons per sq. km)
Position of the District in terms of literacy rate	5th place (84.8 %)
Children in age group 0-6	50898 (13.4% of the total population)
No. of circles in the district	8
No. of rural development blocks	4
Total no. of villages in the district	222
A circle having the highest number of villages	Chumukedima (53 villages)
A circle having the lowest number of villages	Nihokhu (10 villages)
A circle having the highest population	Dimapursadar (169613 persons)
A circle having the lowest population	Nihokhu (8699 persons)
The village has the highest population	Chekiye village (7250 persons)
Average household size of the district	5 persons per household
Main occupation and its percentage of the total population	Other works (29.8%)

Demographics

According to the 2011 census Dimapur district has a population of 379,769 roughly equal to the nation of Maldives.

Table 2: Demographics

Demographic Label	Value
Area	927 Sq. Km (358 sq mi)
Coordinates	north 25° 54' 45" N Latitude 93° 44' 30" E Longitude
Elevation	260 m (850 ft)
Density	410/Sq. km
Time Zone	IST (UTC+05:30)
Average Rainfall	1504.7 mm
Average Climate	maximum of 36°C, with humidity up to 93%
Administrative Units	
Sub Divisions	4 Nos
Tehsil	2 Nos
Sub-Tehsils	2 Nos
Patwar circle	7 Nos
Gram Panchayats	219
Revenue Villages	219
Assembly Area	5

Location and Geographic area

A. Agriculture Profiling of the Districts in the State

The agriculture in the district is rainfed and traditional. By and large, mono-cropping is practiced in the district. The second important crop in the district is Kharif Maize covers about 2500 ha. Maize is generally grown as an inter-crop with Jhum paddy. Winter maize is also grown in certain blocks of the district which covers about 460 ha.

With the favorable agro-climatic condition, oilseeds such as groundnut, soybean, sesame, sunflower, mustard, linseed, etc. are grown in the district. Commercially viable crops such as sugarcane, ginger, jute, turmeric, tea, potato, etc are also grown in the district. Mechanized farming is encouraged, by providing a 50% subsidy on power-tillers.

Dimapur district is predominantly located in the plain region of the State except for one block. Three blocks share identical characteristics in topography, soil, and rainfall. These blocks are Dhansiripar, Niuland and Kuhuboto. Medziphema block is at a higher altitude. The district can be divided into the following agro-ecological situation-

- AES-1 (Plains and foot-hill) 0 - 600 m MSL: Rice is the predominant crop in this AES, besides rice, maize, pulses, vegetables, and oilseeds are grown.
- AES-2 (Mid hill) 600-1200 m MSL. : Rice, maize, pulses, oilseed, vegetables, and fruits are grown.

Rice is the major crop of the district cultivated under rainfed conditions, terrace, and irrigated system. Jhum is carried out in the higher elevation of the district. Maize is the second important crop. Some other important pulses of the Dimapur district are pea, arahar, black gram, and lentil.

Farm mechanization: Large tracts of land are cultivated in the plain area of the Dimapur district, making it feasible for maximum use of farm machinery and implements. Farmers are making ample use of tractors, power tillers, pump sets, and plant protection equipment.

Overview of ODOP

i. Total production of the product in the district

Area and Production of pulses, Cereals, and Oil seeds

In 2019-20, the total area under the major crops like pulses, cereals, and oilseeds in the district is 72.4 thousand ha with the production of 217.4 thousand tons. The major crops in the district are WTRC paddy, Jhum paddy, maize, and Rapeseed mustard, which are cultivated in 41300 ha, 9050 ha, 6700 ha, and 4313 ha with the production of 119209 tons, 18007 tons, 13473 tons, and 4373 tons respectively.

Table 3: Area and Production of pulses, Cereals, and Oil seeds

Crops	Area (Ha)	% Share	Production (MT)	% Share
Jhum Paddy	9050	12.5%	18007	8.3%
WTRC Paddy	41300	57.0%	119209	54.8%
Maize	6770	9.3%	13473	6.2%
Bajra	60	0.1%	60	0.0%
Ragi	50	0.1%	50	0.0%
Wheat	471	0.7%	873	0.4%
Barley	100	0.1%	100	0.0%
Oats	80	0.1%	90	0.0%
Tur/Arhar	520	0.7%	480	0.2%
Urd/Moong	140	0.2%	150	0.1%
Cowpea	234	0.3%	350	0.2%
Horsegram	100	0.1%	120	0.1%
Pea	932	1.3%	1032	0.5%
Lentil	497	0.7%	400	0.2%
Gram	100	0.1%	90	0.0%
Black gram	170	0.2%	140	0.1%
Groundnut	187	0.3%	199	0.1%

Table 3: Area and Production of pulses, Cereals, and Oil seeds				
Crops	Area (Ha)	% Share	Production (MT)	% Share
Soybean	2065	2.9%	2570	1.2%
Castor	90	0.1%	70	0.0%
Sesamum	667	0.9%	412	0.2%
sun-flower	746	1.0%	459	0.2%
Rapeseed Mustard	4313	6.0%	4373	2.0%
Linseed	1130	1.6%	930	0.4%
Sugarcane	1160	1.6%	50595	23.3%
Cotton	3.2	0.0%	2	0.0%
Jute	1040	1.4%	1990	0.9%
Ramie	40	0.1%	30	0.0%
Mesta	274	0.4%	304	0.1%
Yam	124	0.2%	906	0.4%
Total	**72413.2**	100.0%	**217464**	100.0%
Source: Department of Agriculture and Horticulture Nagaland				

Area and Production of fruits

In 2019-20, the fruit crops are cultivated in 4.3 thousand ha with the production of 52.1 thousand tons. The major fruit crops cultivated in the district are pineapple, Banana Limes, and Lemon which are cultivated in the area of 3000 ha, 400 ha, and 350 ha with the production of 35000 tons, 8950 tons, and 3000 tons respectively.

Table 4: Area and Production of fruits				
Fruits	Area (Ha)	% Share	Production (MT)	% Share
Banana	400.00	9.2%	8950.00	17.2%
Guava	35.00	0.8%	350.00	0.7%
Litchi	150.00	3.5%	930.00	1.8%
Mango	70.00	1.6%	550.00	1.1%
Papaya	70.00	1.6%	1000.00	1.9%
Pineapple	3000.00	69.2%	35000.00	67.1%
Pomegranate	10.00	0.2%	45.00	0.1%
Other Fruits (Specify Crop in Remarks Column)	100.00	2.3%	700.00	1.3%
Limes and Lemon	350.00	8.1%	3000.00	5.7%
Kinnow/Mandarin Orange	120.00	2.8%	1400.00	2.7%
Sweet Orange/Mosambi	13.00	0.3%	110.00	0.2%
Watermelon	18.00	0.4%	140.00	0.3%
Total	**4336.00**	**100.0%**	**52175.00**	**100.0%**
Source: Department of Agriculture and Horticulture Nagaland				

Area and Production of vegetables

In 2019-20, the vegetable crops are grown in the area of 4.0 thousand ha with the production of 43.3 tons. The major vegetable crops grown in the district are potato, leafy vegetables, and tapioca in the area of 650 ha, 400 ha, and 350 ha with the production of 6800 tons, 320 tons, and 6800 tons respectively.

Table 5: Area and Production of vegetables

Vegetables	Area	% Share	Production	% Share
Ash Gourd/Petha	4.00	0.1%	40.00	0.1%
Beans (All Including Lab-lab)	200.00	4.9%	1200.00	2.8%
Bitter Gourd	4.00	0.1%	16.00	0.0%
Bottle gourd	10.00	0.2%	100.00	0.2%
Brinjal	45.00	1.1%	330.00	0.8%
Cabbage	380.00	9.4%	12600.00	29.0%
Carrot	35.00	0.9%	420.00	1.0%
Cauliflower	70.00	1.7%	450.00	1.0%
Green chilly	360.00	8.9%	2800.00	6.5%
Cucumber	35.00	0.9%	250.00	0.6%
Kaddu/Pumpkin	25.00	0.6%	250.00	0.6%
Okra/Ladies Finger	18.00	0.4%	160.00	0.4%
Onion	150.00	3.7%	1450.00	3.3%
Peas (Green)	320.00	7.9%	2300.00	5.3%
Potato	650.00	16.0%	6800.00	15.7%
Radish	45.00	1.1%	550.00	1.3%
Leafy Vegetables (Amaranthus, Kashmiri Sag, Spinach, Celery, etc.)	400.00	9.9%	320.00	0.7%
Sweet Potato	60.00	1.5%	730.00	1.7%
Tapioca	350.00	8.6%	6800.00	15.7%
Tomato	300.00	7.4%	2000.00	4.6%
Turnip	3.00	0.1%	20.00	0.0%
Other vegetables Specify Crop in Remarks Column)	70.00	1.7%	500.00	1.2%
Mushroom	300.00	7.4%	1500.00	3.5%
Arbi/Colocasia	220.00	5.4%	1800.00	4.1%
Total	**4054.00**	**100.0%**	**43386.00**	**100.0%**

Source: Department of Agriculture and Horticulture Nagaland

Area and Production of Spice crops

In 2019-20, the spice crops are cultivated in the area of 450 ha in the district with the production of 7485 tons. The major spices crops cultivated in the district are turmeric, and Red chilly are cultivated in the area of 210 ha, and 25 ha with the production of 4600 tons, and 65 tons respectively.

Table 6: Area and production of spice crops

Spices	Area (Ha)	% Share	Production (MT)	% Share
Betelvine in Lakhs Number	6.00	1.3%	60.00	0.8%
Black Pepper	25.00	5.6%	3.00	0.0%
Coriander Seed	7.00	1.6%	7.00	0.1%
Garlic	17.00	3.8%	150.00	2.0%
Ginger	160.00	35.6%	2600.00	34.7%
Turmeric	210.00	46.7%	4600.00	61.5%
Red Chilly	25.00	5.6%	65.00	0.9%
Total	**450.00**	**100.0%**	**7485.00**	**100.0%**

Source: Department of Agriculture and Horticulture Nagaland

Area and Production of flower crops

In 2019-20, the flower crops are cultivated in the area of 3900 sq. M with the production of 500000 Per stem. Anthurium and Gerbera are cultivated in 20000 Sq M and 14000 Sq M respectively.

Table 7: Area and production of flower crops

Flower crops	Area (Sq M)	% Share	Production (Per stem)	% Share
Anthurium	20000	51.3%	200000	40.0%
Gerbera	14000.00	35.9%	200000	40.0%
Orchids	5000.00	12.8%	100000	20.0%
Total	**39000**	**100.0%**	**500000**	**100.0%**

Source: Department of Agriculture and Horticulture Nagaland

Area and Production Plantation crops

In 2019-20, plantation crops are cultivated in the district area of 45 Ha with the production of 150 tons.

Table 8: Area and production of plantation crops

Aromatic & Medicinal plants	Area (Ha)	% Share	Production (MT)	% Share
Patchouli	20.00	44.4%	0.12	0.1%
Lemon Grass	25	55.6%	150	99.9%
Total	**45.00**	**100.0%**	**150.12**	**100.0%**

Source: Department of Agriculture and Horticulture Nagaland

ii. ODOP produce as a percentage of total agricultural production of the district

In 2019-20, the total area under the agricultural crop in the district is 124.456 thousand ha with the production of 325.960 thousand tons. Pulses, cereals, and oil seeds are cultivated in the area of 72.4 thousand ha with the production of 217.4 thousand tons which is 58.2% of the total agricultural area in the district. Pineapple crop is cultivated in the 3000 ha which is 2.4% area of the total agricultural crop area with the production of 10.7% of total agricultural crop production i.e. 35000 tons.

Table 9: ODOP produce as a percentage of total agricultural production of the district

Crops	Area (Ha)	% Share	Production (MT)	% Share
Pulses, cereals, and oil seeds	72413.2	58.2%	217464	66.7%
Vegetables	4054	3.3%	43386	13.3%
Pineapple	3000	2.4%	35000	10.7%
Other fruits	40386	32.4%	17175	5.3%
Spices	450	0.4%	7485	2.3%
Plantation crops	4108	3.3%	5300	1.6%
Aromatic and medical plants	45	0.0%	150.12	0.0%
Total	**124456.2**	**100.0%**	**325960.1**	**100.0%**

Source: Department of Agriculture and Horticulture Nagaland

iii. Perishable nature of the produce

Pineapple, like most fruits, is perishable which required immediate processing to enhance shelf life. Conventional processing (Thermal processing, freezing, drying) is mostly used to preserve fruit products. Different kinds of pineapple processed products in the district are dried slices and candy

Table 10: Perishable nature of the produce

Product	Room Temperature
Pineapple (Whole) lasts for	7 days
Pineapple (Cut) lasts for	2 days
Pineapple candy	4 Months
Pineapple dried slices	2 Months

Seasonality of Pineapple and Other Crops (used along with Pineapple processing)

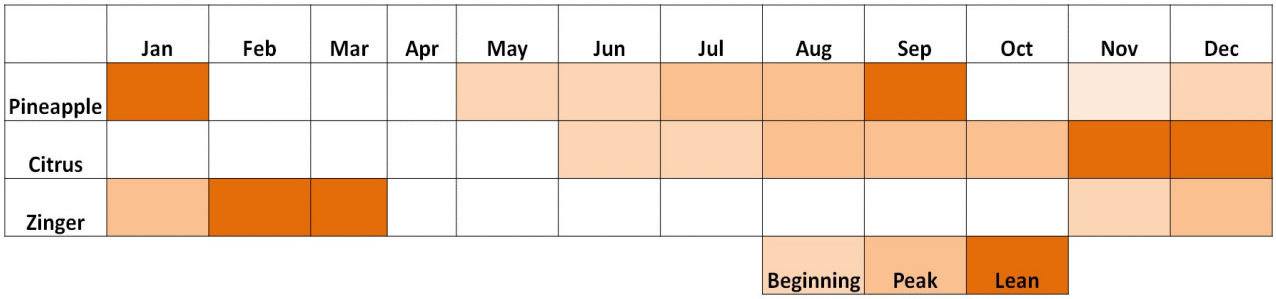


Figure 1: Seasonality of pineapple and other crops

The month of July and August are the peak months of pineapple supply in the market which sometimes extended up to early September. Harvesting starts in May and the lean months are May and June. Comparison with the seasonality of pineapple in some other North-Eastern states reveals that pineapple harvesting starts early in Nagaland and continues after the season has ended in other states such as Tripura and Meghalaya.

However, at present due to a lack of appropriate market linkages, this is leading to a glut in the local market which in turn is resulting in distress sold by many farmers in the District.

iv. Production of ODOP Agriculture Produce in that district compared to other districts and states

The pineapple production in the Nagaland state is 116.8 thousand tons. Dimapur contributes 30% of the total crop production in the state with the production of 35000 tons followed by Peren which contributes 19% of the total crop production i.e. 21980 tons.

Table 11: District-wise pineapple production in Nagaland state

District Name	Production in MT	% Share
Dimapur	**35000**	**30%**
Kohima	1237	1%
Kiphire	7380	6%
Mokokchung	10000	9%
Mon	5750	5%
Longleng	830	1%
Phek	9320	8%
Peren	21980	19%
Tuensang	8404	7%
Wokha	10125	9%
Zunheboto	6790	6%
State Total	**116816**	**100%**

Source: Department of Agriculture and Horticulture, Nagaland

Major Pineapple producing States in India

The production of pineapple crop in the year 2017-18 is 1705.76 thousand tons. West Bengal is the major producer of the pineapple crop in the country with the production of 345.15 thousand tons which is 20% of the total pineapple crop production. Assam and Karnataka contribute 17% and 8% of the crop production respectively. Nagaland state is the 6th top producer of the pineapple crop in the country which contributes 8% of the total crop production.

Table 12: Major pineapple production states in India (2017-18)

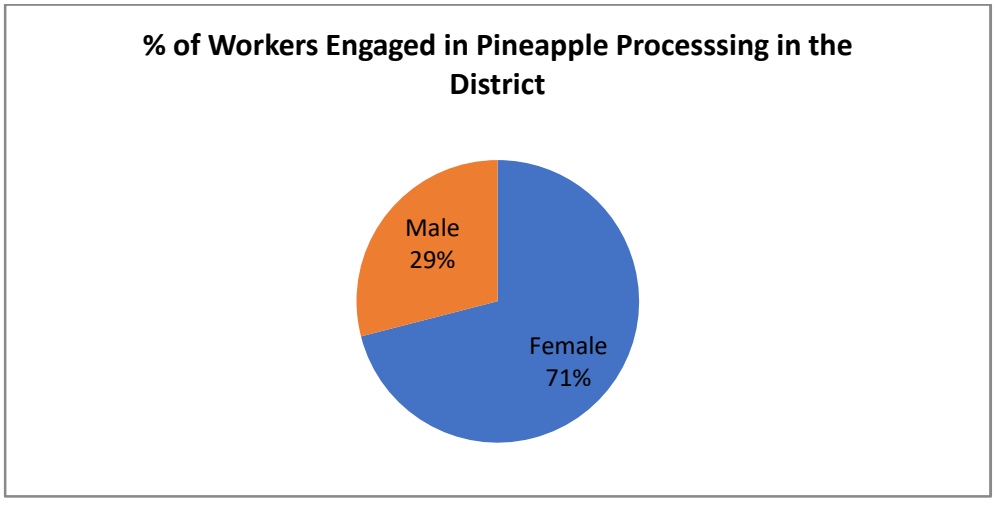
S. No	State	Production (000 MT)	% Share
1	West Bengal	345.15	20%
2	Assam	296.52	17%
3	Karnataka	163.73	10%
4	Meghalaya	144.73	8%
5	Manipur	134.11	8%
6	**Nagaland**	**132.83**	**8%**
7	Tripura	127	7%
8	Bihar	115.13	7%
9	Other states	246.56	14%
	Total	**1705.76**	**100%**

Source: Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers welfare.

v. Number of workers engaged in the ODOP cultivation

After visiting almost all pineapple processing units in the district, it is found that almost 608 workers are engaged in ODOP cultivation. Out of which 29% are male employees and 71% are female employees. Female employees are more in the household units.

Figure 2: Number of workers engaged in the ODOP cultivation



Source: TransGraph Analysis

Overview of Non-ODOP:

i. What other major crops are being cultivated apart from the chosen ODOP product.

WTRC Paddy, Jum Paddy, Maize, Rapeseed Mustard, Soybean, Sugarcane, Linseed, and Jute are the major crops cultivated in the district apart from the Pineapple which is the ODOP of the district. Paddy is cultivated in 50 thousand Ha with the production of 137.2 thousand tons in the district. Maize and Rapeseed mustard are cultivated in 6.7 and 4.3 thousand ha with the production of 13.4 and 4.3 thousand tons respectively.

Table 13: Major crops in the district

Crops	Area (Ha)	% Share	Production (MT)	% Share
WTRC Paddy	41300	57.0%	119209	54.8%
Jhum Paddy	9050	12.5%	18007	8.3%
Maize	6770	9.3%	13473	6.2%
Rapeseed Mustard	4313	6.0%	4373	2.0%
Soybean	2065	2.9%	2570	1.2%
Sugarcane	1160	1.6%	50595	23.3%
Linseed	1130	1.6%	930	0.4%
Jute	1040	1.4%	1990	0.9%
Pea	932	1.3%	1032	0.5%

ii. Total Production of each of the Produces in the District:

Bamboo shoots, processed meat, turmeric products, and Pickle products are chosen as the Non-ODOP of the district based on the area and production of the crop in the district and the number of units processing the commodity**.**

Table 14: Area and Production of Non-ODOP Agriculture produce in Dimapur district

Crop	Area (Ha)	Production (MT)
Turmeric	210	4600
Naga chili	25	65
Mango	70	550
Ginger	160	2600
Source: Department of Agriculture and Horticulture Nagaland		

iii. Non-ODOP produces as a percentage of total agricultural production of the district:

Pickle-based products like King chili pickle, Mango pickle, Bamboo shoot pickle, Turmeric powder, and Processed meat products are considered as Non-ODOP of the district based on the area and production of the crop in the district and the number of units processing the produce. Spices contribute only 0.5%

of the total agricultural area in the district with the production of 2.3% of the total agricultural production. Pulses, cereals, and oil seeds contribute 60.2% and 67.8% of the area and production respectively.

Table 15: Non-ODOP produces as a percentage of total agricultural production of the district

Crops	Area	% Share	Production	% Share
Pulses, cereals, and oil seeds	72413.2	60.2%	217464	67.8%
Vegetables	4054	3.4%	43386	13.5%
Fruits	43386	36.1%	52175	16.3%
Spices	450	0.4%	7485	2.3%
Total	**120303.2**	**100.0%**	**320510**	**100.0%**

Source: Department of Agriculture and Horticulture Nagaland

iv. Perishable nature of the Non-ODOP produce:

Bamboo shoots, processed meat, Turmeric, and Pickles are products selected as the Non-ODOP products of the Dimapur district apart from the Pineapple crop which is selected as the ODOP of the district.

Table 16: Perishable nature of the Non-ODOP products of the district

Crop	Shelf Life (Room temperature)
Bamboo Shoot pickle	6 to 8 months
Meat Pickle	8 to 10 months
Fruits and Vegetable pickles	4 to 6 months
Naga chili pickle	8 to 10 months
Turmeric	**3 to 4 years**
Turmeric powder	2 to 3 years

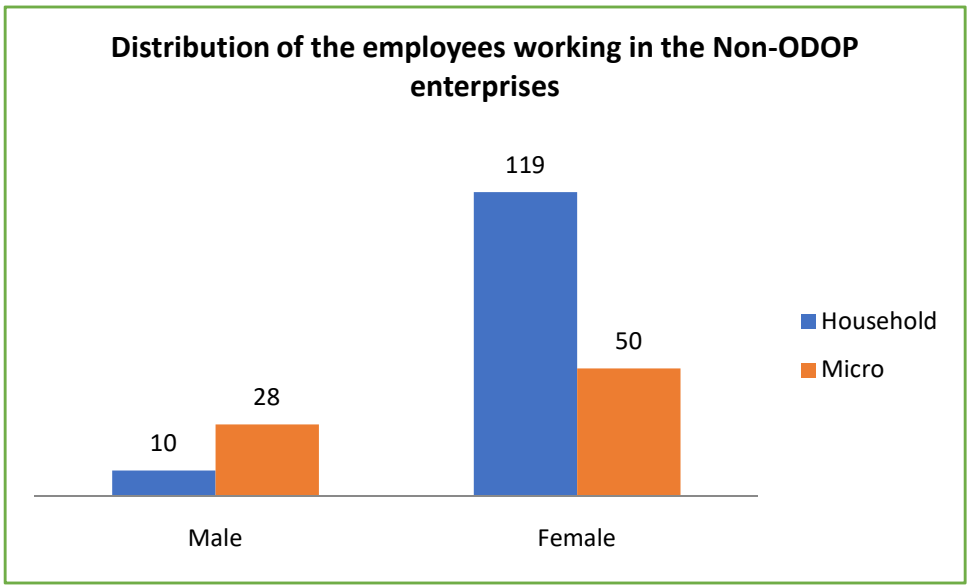
v. Number of workers engaged in the cultivation of each of the Non ODOP products.

207 employees are working in the 26 non-ODOP enterprises in the district (Pickle processing units). Among the total employees working in the enterprises, 62% are male and 38% are female. 129 employees are working in the Household enterprises and 78 employees are working in the micro-enterprise.

Table 17: Number of workers engaged in the Non-ODOP processing in the district

Enterprise	Total employees	% Share of employees	Male	Female
Household enterprise	129	62.3	10	119
Micro enterprise	78	37.7	28	50
Total	**207**	**100**	**38**	**169**

Figure 3: Distribution of the employees working in the Non ODOP enterprises



B. Assessment of the existing Policy and Regulatory frameworks for FPI and FPI Micro Enterprises in the State:

i. Assessment of Food Processing Policies in the State:

Pradhan Mantri Kisan SAMPADA Yojana

Pradhan Mantri Kisan SAMPADA Yojana by Central Government, Ministry of Food Processing of India

The government of India (GOI) has approved a new Central Sector Scheme – Pradhan Mantri Kisan SAMPADA Yojana (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) with an allocation of Rs. 6,000 crores for the period 2016-20 coterminous with the 14th Finance Commission cycle. The scheme will be implemented by the Ministry of Food Processing Industries (MoFPI).

PM Kisan SAMPADA Yojana is a comprehensive package that will result in the creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet. It will not only provide a big boost to the growth of the food processing sector in the country but also help in providing better returns to farmers and is a big step towards doubling farmers' income, creating huge employment opportunities, especially in the rural areas, reducing wastage of agricultural produce, increasing the processing level and enhancing the export of the processed foods.

The following schemes will be implemented under PM Kisan SAMPADA Yojana :

- Mega Food Parks
- Integrated Cold Chain and Value Addition Infrastructure
- Creation/ Expansion of Food Processing/ Preservation Capacities (Unit Scheme)
- Infrastructure for Agro-processing Clusters

- Creation of Backward and Forward Linkages
- Food Safety and Quality Assurance Infrastructure
- Human Resources and Institutions

Nagaland State Government policy in FPI

Table 18: Nagaland state Government policy in FPI	
Policy and Incentives	**Description**
Name of Policy	State Industrial Policy-2000 (Revised-2004)
Nodal Agency	The Ministry of Food Processing Industries (MOFPI)
Single Window Clearance System	Not available
Power/Electricity Subsidy	Subsidy on power will be provided at the rate of 30% and 25% for connected loads up to 1 MW and above 1 MW respectively for five years from the date of commercial production subject to a maximum ceiling limit of ` 2.00 lakh annually. This will be a reimbursement scheme for the actual consumption of power for the manufacturing process substantiated with requisite details.
	Drawal of Power Line: Cost of drawal of 33/11 KV line to eligible units located outside the notified areas shall be reimbursed for one time only subject to a ceiling of `2:00 lakh (now as per NEIIPP-2007, anywhere in the State)
Capital Subsidy	Not available
Interest Subsidy	Not available
VAT/CST/SGST/TAX Exemption/Reimbursement	**Stamp Duty Exemption** 50% Stamp Duty and Registration Fee for securing loans from Financial Institutions including Mortgage of fixed assets shall be exempted from the Stamp Duty Act for 5 (five) years
Employment Generation	**Manpower Subsidy** The government will reimburse up to 25% of the actual wage bill for local tribal employees employed by eligible units up to three years from the date of entertainment subject to a maximum ceiling of Rs.1.00 lakh annually. This grant would be for five years from the date of entertainment of such staff and would be given to those units where the investment in plant and machinery exceeds Rs.10.00 lakh and the number of employees engaged in the unit exceeds 20

Table 18: Nagaland state Government policy in FPI	
Policy and Incentives	**Description**
	(twenty) numbers and where the at least 50% of the employees are local tribal youth. Units availing subsidy under this scheme shall take all effective steps to ensure 75% employment of local youth over five years. This subsidy will be admissible on a reimbursement basis for only those employees who complete one year of regular employment in the unit.
Freight/Transport Subsidy	Not available
Others	**Subsidy for Feasibility Study Cost** The subsidy will be available at the rate of 50% of the cost of Detailed Reports subject to a ceiling of Rs.1.00 lakh, which shall be eligible only for new units with investment in plant and machinery above Rs.25 lakh provided the report is prepared by a Government approved Industrial Consultants.
	Subsidy Incentives for 100% Export Oriented Units (EOU) An additional 5% capital investment subsidy is subject to a maximum ceiling of Rs.3.00 lakh.
	Subsidy for Quality Control measures Cost of laboratory equipment for quality control and ISI/BIS/ISO 9000 certification will be reimbursed subject to a maximum ceiling of Rs. 50,000/- in cases where it does not form part of the project cost for SSI and Rs.1.00 lakh in case of Large and Medium unit.
Source: DIC, Nagaland	

ii. Assessment of ongoing and proposed state government programs in the FPI and allied sector:

Currently, there are no existing food processing policies in the state. Recently the Industry and Commerce department of Nagaland, Proposed One food processing policy named "Nagaland State food processing Industries policy (NSFPI).

iii. Assessment of existing Regulatory frameworks for FPI:

PM FME Scheme- PM Formalization of Micro Food Processing Enterprises Scheme

Unorganized micro food processes units, need intensive hand-holding support for skill training, entrepreneurship, technology, credit, and marketing, across the value chain, necessitating active participation of the state government for better outreach. In the last decade, Central and State Governments have made intensive efforts to organize farmers in Food Processing Organizations (FPOs) and women's Self-Help Groups (SHGs). SHGs have achieved considerable progress in thrift and their repayment record with a 97% NPA level is among the best. Governments have made efforts to enable SHGs to undertake various manufacturing and service sector activities including food processing. However, there are few Government schemes to support FPOs and SHGs to make investments and upscale their operations.

This scheme is a centrally sponsored scheme that is designed to address the challenges faced by the micro-enterprises and to tap the potential of groups and cooperatives in supporting the up-gradation and formalization of these enterprises.

Table 19: PMFME Scheme

Scheme Component	Particulars
Support to individuals and groups of micro-enterprises	Individual micro food processing units would be provided credit-linked capital subsidy @35% of the eligible project cost with a maximum ceiling of Rs.10.0 lakh per unit. The beneficiary contribution should be a minimum of 10% of the project cost with the balance being a loan from the Bank.
Farmer Producer Organizations (FPOs)/Producer Cooperatives	i) Grant @35% with credit linkage; ii) Training support; iii) Maximum limit of grant in such cases would be as prescribed.
Self-Help Groups (SHGs)	Seed capital: i) Seed capital @ Rs40,000/- per member of SHG for working capital and purchase of small tools would be provided under the scheme; ii) Priority would be given to SHGs involved in ODOP produce in giving seed capital; iii) All the members of an SHG may not be involved in the food processing. Therefore, seed capital would be provided at the federation level of SHGs; iv) This would be given as a grant to the SHG federation by SNA/ SRLM. SHG federation would provide this amount as a loan to

Table 19: PMFME Scheme Scheme Component	Particulars
	the members of SHGs to be repaid to the SHG.
Support to individual SHG member	As a single unit of the food processing industry with credit linked grant @35% with the maximum amount being Rs 10 lakh.
Source: DIC, Nagaland	

iv. Stakeholder Mapping:

MINUTES OF THE MEETING (MOM) OF NAGALAND PMFME SLUP STAKEHOLDERS MEETING DTD 09-02-2022 HELD A DIRECTORATE OF INDUSTRIES and COMMERCE, KOHIMA – ONLINE and OFFLINE MODE – REG

Industries and Commerce

- Kekhrievor Kevichusa, Commissioner and Secretary, Industries and Commerce department (Commissioner)
- Hokishe K Assumi, Director of Industries and Commerce (Director)
- Vitsutho Nyuthe, Additional Director of Industries and Commerce (Additional Director)
- Zakielatuo Yiese, Deputy Director, Industries and Commerce (Deputy Director)
- Mhasiphizo Michael Khezhie, Nodal Officer, PMFME Scheme, Directorate of Industries and Commerce (Michael

TransGraph

- Dr. Abdul Rahman Ilyas, Global Head and Vice President, TransGraph Consulting, Hyderabad
- Mr.Deekshit Manchaiah, Analyst, TransGraph Consulting, Hyderabad

Stakeholders

- M. Rollan Lotha, COO, NSRLM, Nagaland
- Lentinaro, Program Manager, NSRLM
- Dr.Hiales Zeliang, Deputy Director, Veterinary, GoN
- Dr.Vimezo Kire, Deputy Director, Fisheries, GoN
- Sendong, Jr. Asst. Commissioner, Food Safety, GoN
- Meyasashi, Deputy Director Horticulture, GoN
- Bokato Hesso, Deputy Director, Cooperation department. GoN

The meeting was held in the Directorate of Industries and Commerce, Kohima on Feb 9th, 2022 which started at 11.15 Am and concluded at 1.30 Pm.

- The formal introduction was done by Michael who welcomed the offline and online participants, he apprised them about the PMFME scheme and the Stale Level Up gradation Plan (SLUP) and apprised the group that a state-level study was conducted by M/s.Transgraph Consulting prepares district-wise reports that were circulated to all the stakeholders and the objective of this meeting is to take suggestions from every stakeholder to be incorporated into the final report. He requested the attendees to introduce themselves and later requested Commissioner to give the keynote address.

- Commissioner presented the keynote and highlighted how important the PMFME scheme is for the State of Nagaland as it is bound to scale in the coming years in terms of increased support to the food processing sector, he highlighted the objectives of the PMFME and requested all the stakeholders present to offer their recommendations and suggestions if any to be incorporated into the final SLUP report that will become a torchbearer to implement for the development of the food processing sector so the inputs from all are going to be very crucial and encouraged all to participate.

- Director spoke about ODOP and Non-ODOP and gave a summary that Nagaland the produce is same across all the districts, so not to be confused on the ODOP and non ODOP, while in certain districts based on the production of that particular product is high was chosen while in other districts the same stand as Non-ODOP. So PMFME would be looking at the clusters. Director further said TranGraph Consulting Hyderabad has done a good study and the reports have been submitted to all today they will be presenting the summary and key findings of the report for stakeholder's suggestion and feedback. He requested TrangGraph to go ahead and present the report.

- Dr. Abdul Rahman from TransGraph Consulting, Hyderabad gave a brief overview of the PMFME Scheme and SLUP, he acknowledged the support of the Commissioner and Director and his team, and various important stakeholders across Nagaland. He further presented the methodology adopted for the study and gave a detailed crisp presentation on each district and covered 11 districts.

- Mr.Rollan Lotha, NSRLM spoke about Peren district and informed that they have a 100kg per batch vacuum drier, 24 tray over bio mass solar drier with 250 MT Capacity. In Wokha he informed fishery sector is dominated by Men, whereas NSRLM also includes women, he further informed that a fish value chain project is being currently planned in partnership with ECOP, New Delhi. 1500 kg of fish is going out of Nagaland from the Dhyong River and he wanted to establish a fish processing unit. He further informed that they have been waiting to get cooperative status for their organization which is pending with the Coop Department and requested that it be expedited. So that buy-back arrangement can be extended with a corpus which is currently a bottleneck for them.

- Bokato Hesso, Deputy Reg, Cooperation Department, GoN, informed the audience that there is skilled labor available for barista coffee and he has shared a list of 100 cooperatives with the DFPI.

He informed that they are working on the 10,000 FPO national mandate driven by Nabard and focusing on the creation of FPOs in Peren, Kiphire, and Kohima. 3 under cooperative act under Nabard / NCDC and 10 under SFAC under Companys Act. He further informed that at Block level 5 villages engage in cooperative activity, hence they are trying to develop an Integrated Multipurpose Cooperative Society to tap the small group on their Adhaar base.

- Mr.Ashish, Trangraph's Survey lead informed that they touch based Cooperatives list given by the Department and a few of them are inactive and others have been contacted and information captured. He further said that as part of the cluster study all the existing cooperatives will be mapped.

- Deputy DOH informed us that there is a marketable surplus in Pineapple and Kiwi. For example, he said farmers throw 20-25 of their produce at farm level and do not even bother to value add because of lack of time similarly in Kiwi there is a 50% marketable surplus resulting out of grading as only Grade 'A' is bought by traders. So there is an immense opportunity to convert the marketable surplus into value-added products which is currently not happening. In the district Phek, the production is kiwi is small at the same time other districts also have small production areas of Kiwi such as Kohima, Zonhebato, and Tusenang for which an aggregation hub can be created.

- Michael took over and informed all the stakeholders present to send their suggestions and feedback earlier by Monday i.e. 13th February 2022 formally. So that their respective feedback can be captured in the final report. He also requested the online participants to send their feedback by email. He further requested Additional Director to give closing remarks.

- Additional Director Industries thanked TrangGraph for giving an elaborate presentation and also thanked the participants for giving their valuable feedback. He also informed me that the report is in finalization state all the feedback and suggestions given will be incorporated.

The meeting concluded at 13.30 hours.

C. Profiling of existing Micro Enterprises ecosystem:

1. Industrial Profile of the Districts in the State

The food processing industry holds great potential in the state of Nagaland, owing to the huge biodiversity, uniqueness of certain commodities, and natural method of cultivation but having said that, currently, the industry is in a nascent stage. Huge logistical challenges; perishability of Agricultural products and large gaps in food safety rules are limiting factors, which if addressed, can help fully leverage the overall potential that the state holds. Considering the above challenges, what suits best for the state is "Micro Food Processing". Smaller facilities at many locations appear to be the right solution rather than a few big units.

The agro-climatic conditions in Nagaland provide commercial opportunities for floriculture and horticulture. The state has 650 indigenous species of medicinal and aromatic plants. In 2019-20, the total production of horticulture crops in the state was estimated at 847.83 thousand metric tons and the area under production was 88.35 thousand hectares. In 2019-20, the total production of vegetables and fruits was estimated at 453.65 thousand metric tons and 315.05 thousand metric tons, respectively.

Bamboo is found extensively in Nagaland, with bamboo growing stock covering nearly 5% of the total stock in the country. As of 2018, Nagaland had 46 species of bamboo. Production of raw silk in Nagaland stood at about 620 MT in 2018-19 and 600 MT in 2019-20.

The state offers excellent policy and fiscal incentives for agro-based and forest-based industries, horticulture, food processing, mining, tourism, and the handlooms and handicrafts sectors. Industrial centers and special economic zones (SEZs) are being developed to enhance the marketability of products. As of August 2020, the state had two formally approved SEZs.

According to the Department for Promotion of Industry and Internal Trade (DPIIT), FDI inflow to other* states totaled US$ 343.74 million from October 2019 to December 2020.

The Government of Nagaland has identified the following Centers in Dimapur District as Industrial areas.

Table 20: Existing Status of Industrial Areas in the District of Dimapur

S. No.	Name of Ind. Area	Land acquired in Ha	No of the allotted plots	No. of units in production
1	Industrial Growth center	345	2	2
2	NMTIC	4.47	-	-
3	V.H			20
4	lID Centre, Nuiland	50	100	60

Table 21: Industries scenario of Dimapur district

S. No.	Head	Unit	Particular
1	Registered industrial unit	575 Nos	MSE sector
2	Total Industrial unit	575 Nos	
3	Registered medium and large unit	No	12
4	Estimated average no of daily workers employed in small-scale Industries	No	1250
5	Employment in large and Medium Industries	No	150
6	No. of Industrial area	No	4
7	Turnover of small-scale Industries	In Lakhs	4.5
8	Turnover of Medium and large scale Industries	In Lakhs	10.50

Table 21: Industries scenario of Dimapur district			
S. No.	Head	Unit	Particular
Source – Brief Industrial Profile Report by MSME, GOI			

2. Identifying Non-ODOP Products:

Identified Non – ODOP products through a primary survey in the district are listed below table;

Table 22: Non-ODOP products in the district		
S. No	**Crop Name**	**Value added products**
1	Bamboo shoot	Bamboo pickles
2	Processed meat products	Meat pickles and dried meat
3	Turmeric products	Turmeric powder
4	Pickles products	Naga chili pickle, Vegetable pickles

4. District-wise profiling based on secondary research

i. Is the district recognized with the ODOP product?

The pineapple crop is recognized as an ODOP product of the district based on the area and production of the pineapple crop and several pineapple crop processing enterprises in the district.

Awareness about the ODOP Product in Dimapur District

From the primary survey, it is observed that 62.5% of respondents of total 64 respondents are aware of the ODOP of the district and 37.5% of the total samples are not aware of the ODOP produced by the district.

Figure 4: Percentage of the respondents aware of the ODOP produced by the district

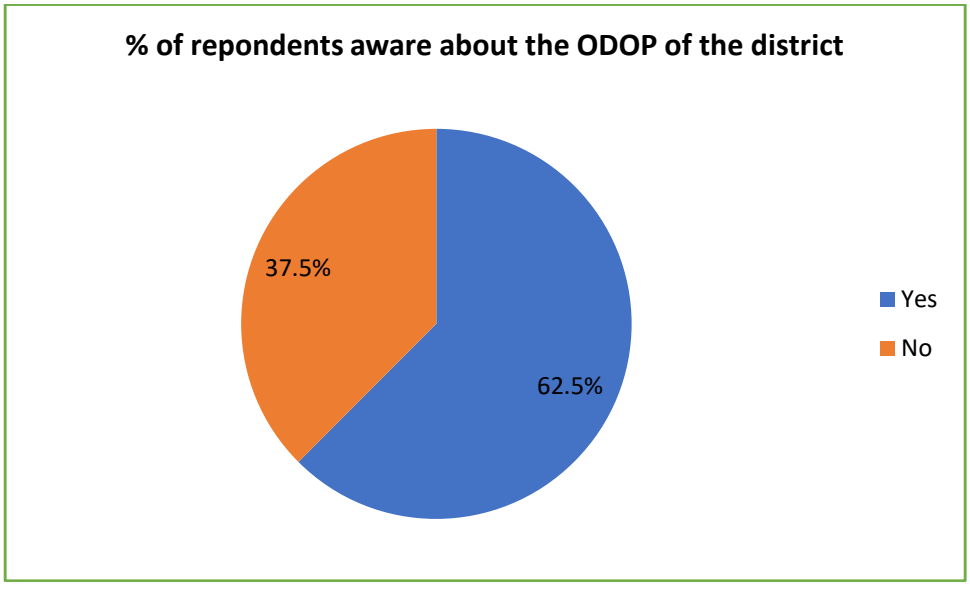


Table 23: Awareness of the ODOP products in the Dimapur district		
Particulars	**Response**	**% Share of the total respondents**
Yes	40	62.5
No	24	37.5
Total	64	100

ii. Has the product been granted Geographical Indication status by the Government of India?

Geographical indication status was not granted to the Pine apple produce in the district which is the ODOP of the district.

"Naga Mircha", "Naga tree tomato", and "Naga cucumber" are the three agricultural commodities granted the GI tag from Nagaland.

Table 24: GI-certified crops in the Nagaland		
S. No	**GI Name**	**Registered entity**
1	Naga Mircha	Secretary, Department of Horticulture and Agriculture
2	Naga Tree tomato	NERAMAC
3	Naga cucumber	NERAMAC

iii. Special nature and relationship of the product with the district, uniqueness, history, etc

Organic pineapple is considered one of the signature crops of Nagaland. Hundreds of farmers earn their livelihood by cultivating pineapple.

The average yield of pineapple in Nagaland is estimated to be 50-80 tons/ha. The varieties of pineapple grown include Queen, Kew, and Giant. Currently, 2800 hectares are being used for pineapple cultivation in the Dimapur district only. Earlier, pineapple cultivation was random and scattered over the years but progress has been made in terms of improvement in pineapple cultivation and commercialization.

Farmers in rural Nagaland have shifted from paddy cultivation, an age-old practice, to pineapple production. In the present situation, pineapple has become one of the most important commercial crops in the State, drawing rural populations to its cultivation, thus providing a huge livelihood and employment opportunity.

Medziphema Tehsil in Dimapur District is the production cluster for pineapple production in the district as Medziphema tehsil contributes the majority of the pineapple production in the Dimapur district.

iv. Level of processing happening for ODOP in the district, in other districts, and outside the State.

From the primary and we observed that around 60% of the total 3500 tons of crop produced in the district is exported to other districts and other states in the country. Approximately, 40% of the crop is

consumed in the district. Approximately 2% of the total crop produced in the district is processed into pineapple candy and dried pineapple slices.

With the large-scale production of pineapple, the establishment of a processing unit has become viable and the state has opened opportunities to become a global player in the organic pineapple trade.

Figure 5: Approximate level of the processing of the pineapple crop in the district

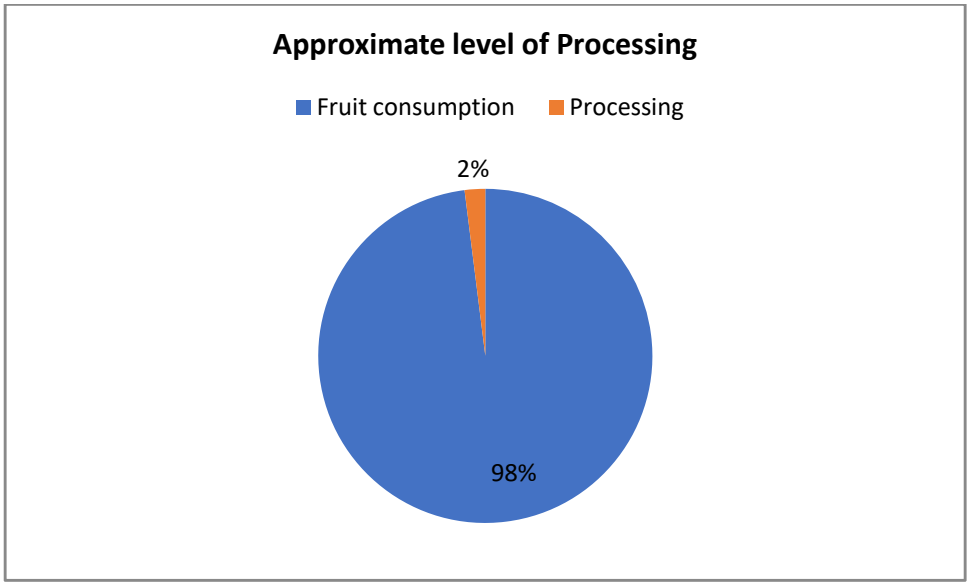


Table 25: Approximate quantity of pineapple crop processing in the district		
S. No.	**Particulars**	**Quantity of crop (MT)**
1	Production	35000
2	Export	21000
3	Local consumption	14000
4	Processing (Candy and Dried slices)	700

v. Mapping of the Micro, Small, Medium, and Large Industries in the District (Total number of Units).

A total of 24 agro-processing units are registered in the Kohima district under the MSME sector. 12 are involved in agriculture, hunting, and related service activities and the other 12 are in the manufacturing of food products and beverages

Details of the units are given in below table:

Table 26: Details of Existing Micro and Small Enterprises and Artisan units in the Kohima District				
NIC Code No	**Type of Industry**	**No. of units**	**Investment (Lakhs)**	**Employment**
1	Agriculture, Hunting, and Related Service Activities	12	30	105

Table 26: Details of Existing Micro and Small Enterprises and Artisan units in the Kohima District				
NIC Code No	Type of Industry	No. of units	Investment (Lakhs)	Employment
2	Mfg. of Food Products and Beverages	12	286.92	103
	Total	**24**	**316.92**	**208**
Source-Brief Industrial Profile Report of Kohima district by MSME, GOI				

Classification of ODOP Processing Industries in Dimapur District- Primary Survey

From the primary survey it is observed that among the total sample of 64 units, 38 enterprises are processing pineapple crops which is the ODOP of the district. Among the 38 ODOP processing units, 23 are households, 8 are medium enterprises and micro and small units are 4 and 3 respectively.

Figure 6: Category of Units processing the pineapple crop in the district

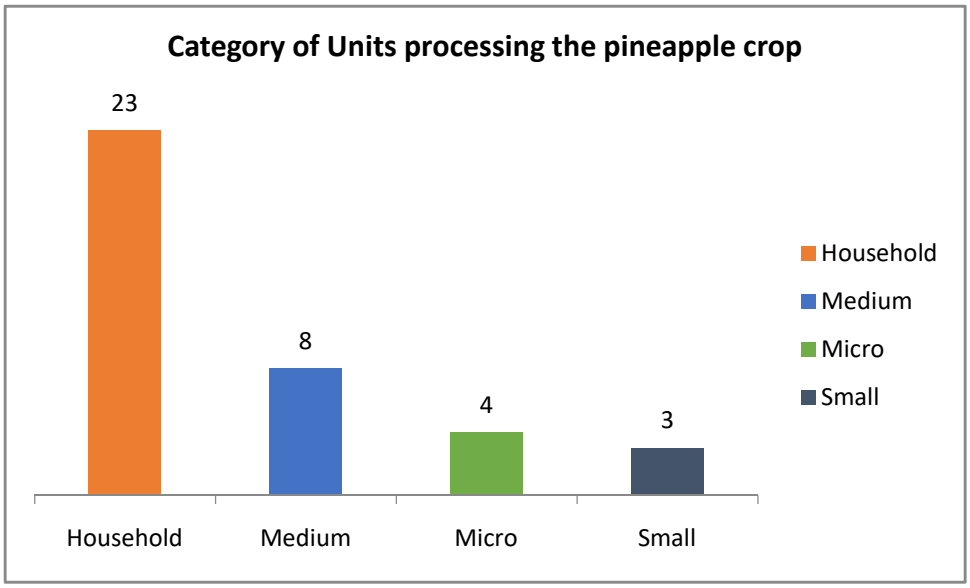


Table 27: Category of Units processing the pineapple crop in the district		
Category	**No. of Units**	**% Share**
Household enterprises	23	60.5%
Medium enterprises	8	21.1%
Micro enterprises	4	10.5%
Small enterprises	3	7.9%
Total enterprises	**38**	**100.0%**

Industries Registration in Dimapur District

From the primary survey, it is observed that out of 38 ODOP processing units, 20 enterprises are registered and 18 enterprises are un-registered.

Table 28: Number of registered in Dimapur district

Category	Registered	Non-Registered	Total
Household enterprises	15	8	23
Medium enterprises	0	8	8
Micro enterprises	4	0	4
Small enterprises	1	2	3
Total	**20**	**18**	**38**

vi. Number of clusters engaged in the processing of this product;

Medziphema circle is one of the 8 circles of the Dimapur district is the pineapple cluster in terms of the crop production in the district. Medziphema cluster contributes almost 98% of the crop production in the district.

Surprisingly, for such a large production, there are no existing enterprises that can be classified under the heading “doing good pine apple processing” or even into the category of “processing different products with Pineapple as the mainstay”. There is a strong FPC aggregating Pineapple and selling, but not into processing.

There are other clusters available in the Dimapur district for Non-ODOP commodities which details are as below:

1) Name of the Cluster: -Cement Craft

Table 29: Cement craft cluster

1	Principal products Manufactured in the cluster	Pot, Vase, Cement Jally, Decorative design items, etc
2.	Name of the cluster	Cement craft cluster at Dimapur
3.	No functional units in the clusters	25 Nos
4.	Turnover of the clusters	1.5 Lakhs
5.	Value of exports from the clusters	Nil
6.	Employment in clusters	60 Nos
7.	Average investment in plant and machinery	1.5 Lakhs
8.	Major issues/ requirement	Design, Technology, Capacity building, etc
9	Presence of capable institutions	KVIC,Dimapur, NEIST,Jorhat, CGSRI,Kolkata. Br.MSME-DI,Dimapur
10	Thrust Areas	Capacity building, Design, New technology transfer, Financials loan, etc

Table 29: Cement craft cluster		
11	Problems and Constraints	Lack of New Technology, Loan, power, etc

2) Name of the Cluster: - Cane and Bamboo cluster

Table 30: Cane and Bamboo cluster		
1.	Principal products Manufactured in the cluster	Cane Chair, tables, Bamboo mat, Cluster. Basket, Bag, etc
2.	Name of the cluster	Cane and Bamboo cluster at Chumukedima
3.	No functional units in the clusters	25 Nos
4.	Turnover of the clusters	1.5 lacks
5.	Value of exports from the clusters	Nil
6.	Employment in clusters	50 Nos
7.	Average investment in plant and machinery	1 Lakhs
8.	Testing Area	Artistically works, bamboo works, etc
9.	Thrust Areas	Thrust building, new design, quality, etc
11.	Access to the export market	Nil

3) Name of the Cluster: - Fabrication and general Engineering cluster: - Steel Fabrication cluster at Dimapur

Table 31: Steel fabrication cluster		
1	Principal products Manufactured in the cluster	Grill, Gate, Shutter
2.	Name of the cluster	Steel Fabrication Association, Purana Bazaar, Dimapur
3.	No functional units in the clusters	25 Nos
4.	Turnover of the clusters	1.5 Lakhs
5.	Value of exports from the clusters	Nil
6.	Employment in clusters	60 Nos
7.	Average investment in plant and Machinery	3 Lakhs
8.	Testing Area	Quality, Capacity building
9.	Major issues	Design, technology, loan
11	Access to the export market	Nil

4) Name of the cluster – Handloom cluster

Table 32: Handloom cluster		
1	Principal products Manufactured in the cluster	Cloths, Cot, Shawls, Mekila
2.	Name of the association	Handloom cluster at Nagajan; Dimapur
3.	No functional units in the clusters	20 Nos

4.	Turnover of the clusters	1 Lakhs
5.	Employment in clusters	65 Nos
6.	Average investment in plant and machinery	2 Lakhs
7.	Major issues	Design, new technology, Thrust Building
8.	Access to the export market	Nil

5) Name of the cluster – Food processing cluster

Table 33: Food processing cluster		
1	Principal products Manufactured in the cluster	Pineapple, Orange, Guava, the cluster Bamboo shoot, Jack fruit, Mango, etc
2.	Name of the association	Food processing cluster at Pudarnphuri
3.	No. of functional units in the clusters	15 Nos
4.	Turnover of the clusters	2 Lakhs
5.	Employment in clusters	50 nos
6.	Average investment in plant and machinery	1.5 Lakhs
7.	Major issues	New technology, Thrust building, Packaging, Finance, Infrastructure, etc
8.	Access to the export market	Nil

6) Name of the cluster – Stone curving cluster

Table 34: Stone curving cluster		
1	Principal products Manufactured in the cluster	Stone chips, stone blocks, stone carving work, etc
2.	Name of the association	Stone crusher at Chumukedima
3.	No. of functional units in the clusters	25 Nos
4.	Turnover of the clusters	1.5 Lakhs
5.	Employment in clusters	40 Nos
6.	Average investment in plant and machinery	5 Lakhs
7.	Major issues	New technology, capacity building
8.	Access to the export market	Nil

7) Name of the Cluster: - Tea Processing Cluster at Dimapur

Table 35: Tea processing cluster		
1	Principal products Manufactured in the cluster	Handloom products
2.	Name of the SPV	Nagaland Tea plant

		association Dimapur
3.	No. of functional units in the clusters	25 Nos
4.	Turnover of the clusters	1.4 Lakhs
5.	Value of exports from the clusters	Nil
6.	Employment in clusters	1000
7.	Average investment in plant and Machinery	12 Lakhs
8.	Major issues/ requirement	New Technology, Packaging, Finance, capacity building, CFC, etc
9	Presence of capable institutions	Tockhalay Tea Research Institute, Jorhat, NEIST, Jorhat
10	Thrust Areas	Training, Export, New technology, thrust building, etc
11	Problems and Constraints	Financials, New technology, lack of training etc

8) Name of the Cluster: - handloom cluster

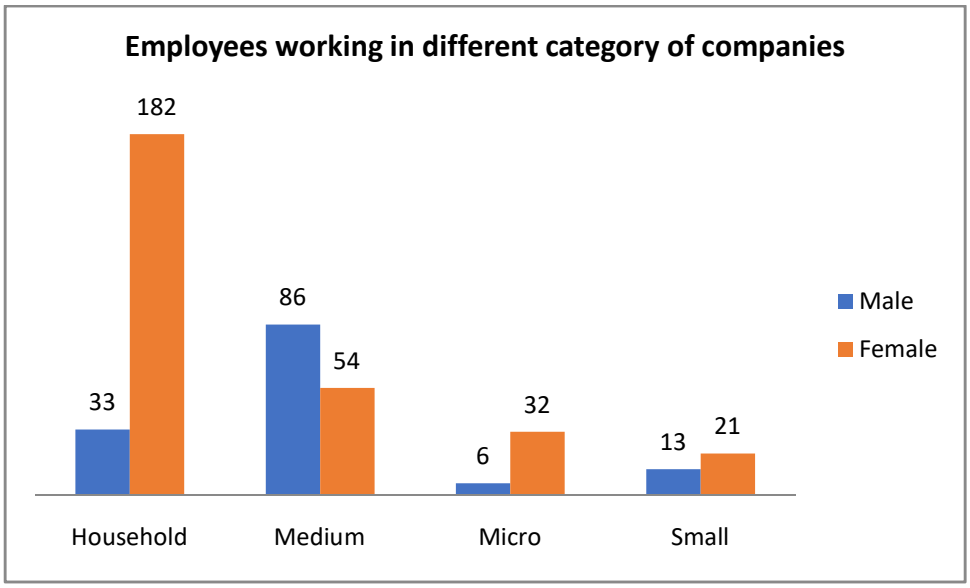
Table 36: Handloom cluster		
1	Principal products Manufactured in the cluster	Handloom products
2.	Name of the SPV	Nagaland Khadi Udyog bhandar, Dhobi-nulla Dimapur
3.	No. of functional units in the clusters	20
4.	Turnover of the clusters	1.4 Cr
5.	Value of exports from the clusters	
6.	Employment in clusters	Approx. 1062
7.	Average investment in plant and Machinery	120 Cr
8.	Major issues/ requirement	
9	Presence of capable institutions	
10	Thrust Areas	
11	Problems and Constraints	Raw materials, Financials, etc

vii. Number of workers engaged in the ODOP processing

A total of 427 individuals are engaged in processing the ODOP in the 38 enterprises. Among the total workers engaged in the ODOP processing, 289 employees are male and 427 employees are female. Household category enterprises contribute almost 50% of the total employee engaged in the ODOP processing followed by medium enterprises which contribute 32.8% of the total workers.

Table 37: Number of workers engaged in the ODOP processing				
Category	**Male**	**Female**	**Total**	**% Share**
Household enterprises	33	182	215	50.4%
Medium enterprises	86	54	140	32.8%
Micro enterprises	6	32	38	8.9%
Small enterprises	13	21	34	8.0%
Total	**138**	**289**	**427**	**100.0%**

Figure 7: Employees working in a different categories of companies



viii. Marketing linkages within the district, state, and outside

All the food processing industries in the district are selling processed pineapple produce within the district only. There is no market linkage to the existing processing in the district to sell the product to other districts in the state and other states. The majority of the processing enterprises are operating at the household level and selling the produce from the household level or to the local retailers in an unorganized manner.

For branding, there is an umbrella brand, being driven by NSAMB, i.e. “Naturally Nagaland”, which is a way of promoting the “Organic” brand of Nagaland. Pineapple needs to be pushed aggressively within this brand, (which is not seen much now), and also independently, promoting the strengths of Nagaland Pineapple.

The effort should be to reach out to Metros and highlight the features of Nagaland Pineapple: **Organic, Natural, High sugar content, Size of Pine Apple**

Brands in fruits are certainly adding value to the fruit and are important to distinguish one pineapple from another. Particularly if we focus on the higher-income consumers who are more sensitive to proof of quality, taste, or health benefits all of which can be expressed by branding.

Pineapple-Marketing of agricultural products is mainly done in the village market which is weekly in nature. Farmers get lower prices for their produces in these markets. To promote the marketing of agricultural produce efforts are made by the Agricultural Produce Marketing Committee (APMC) in the District. Under the supervision of APMC, Agricultural Produce Marketing Sub-Committee and Village Market Committee have been constituted. Ten APMSCs have been constituted and ten Sub Market Yards are also proposed. At present, there are two APMCs, one at Dimapur and the other at Niuland. Both are affiliated with Nagaland Agricultural Marketing Board.

Several farming organizations that can be utilized for marketing agricultural and horticultural products in the district are:

Table 38: Marketing linkages in the district

Name	Activities	Resource obtained from
APMC	Marketing of agricultural produce	Agriculture and allied sectors Departments
Farmers Club	Mobilization of small and marginal Farmers	NABARD and Co-Operative Banks
Bolster SHG	Aloe vera soap making	ATMA
Renlok SHG	Soap making and Value addition	ATMA
Source – Dept. of Agriculture, Nagaland		

ix. Level of infrastructure for ODOP processing within the district, in other districts, and States

There are only 2 cold storage structures in the district of capacity 6150 MT in the district. The Pineapple production in the state is 35000 MT i.e. only 17% of the crop produced in the district is accommodated in the existing cold storage.

Table 39: Cold storage in the Dimapur district

S. No	Name and Address	Capacity in MT	Sector	Commodity
1	MARCOFED cold storage, Dimapur	1150	Cooperative	Multipurpose
2	L. Doulo Builders and Suppliers Co (P) Ltd, Dimapur	5000	Private	Multipurpose
	Total	**6150**		
Source- APEDA				

There are no common infrastructure facilities like pack houses, warehouses, and common processing facilities in the district. It is proposed to set up one common processing facility with 3-4 processing lines in the district. An incubation center is also proposed in the district for training and handholding support for the food processing enterprises.

x. Total production value of the ODOP product manufactured in the district and as % of total agricultural production.

The production of the pineapple crop in the district is 35000 MT which is 10.7% of the total agricultural crop production in the district. Pineapple crop is grown in 3000 Ha which is 2.4% of the total agricultural crop area in the district.

Table 40: Production of the pineapple crop in the district

Crops	Area (Ha)	% Share	Production (MT)	% Share
Pulses, cereals, and oil seeds	72413.2	58.2%	217464	66.7%
Vegetables	4054	3.3%	43386	13.3%
Pineapple	3000	2.4%	35000	10.7%
Other fruits	40386	32.4%	17175	5.3%
Spices	450	0.4%	7485	2.3%
Plantation crops	4108	3.3%	5300	1.6%
Aromatic and medical plants	45	0.0%	150.12	0.0%
Total	**124456.2**	**100.0%**	**325960.1**	**100.0%**

xi. Number of enterprises involved in the processing of this product and as a % share of the total number of micro food processing enterprises in that district.

38 enterprises are involved in processing the ODOP produce in the district. Among the total ODOP processing enterprises, 23 are household, 8 are medium enterprises, 4 are microprocessing units and 3 are small processing units.
The List of ODOP processing enterprises in the district re attached in the Annexure.

xii. Number of Self Help Groups and Farmer Producer Organizations are engaged in the Processing of this product.

The only FPC in pineapple, i.e. “Muolsang Organic Pineapple Producers Company” has major representatives from Molvom village. 250 farmers are engaged in pineapple cultivation in the “Molvom village” out of the total 1500 farmers involved in pineapple cultivation in the district.

SHG- There are small, cottage industries, producing pineapple products manually and selling in local markets, not to shops, but in villages and for functions. They are highly unorganized, get into processing during the season, produce mostly juices and packing in old PET bottles, and in that sense, are primitive in their current setup. Almost 19 SHGs are engaged in pineapple processing in the district.

The Nagaland State Co-Operative Marketing and Consumers' Federation (Marco fed) Ltd., H.O. Dimapur

The Nagaland State Co-operative Marketing and Consumers' Federation Ltd. popularly known as MARCOFED is an Apex Level Co-operative Institution for Marketing Agricultural produces and distribution of essential commodities in the State which was established in the year 1968 under the sponsorship of the State Govt. as a public sector undertaking with its Registration No. NL/0222 Dt. 17-08-1968 and based in Dimapur as its Head Office, Nagaland.

A list of the FPOs, SHGs, and Cooperatives is attached in the Annexure.

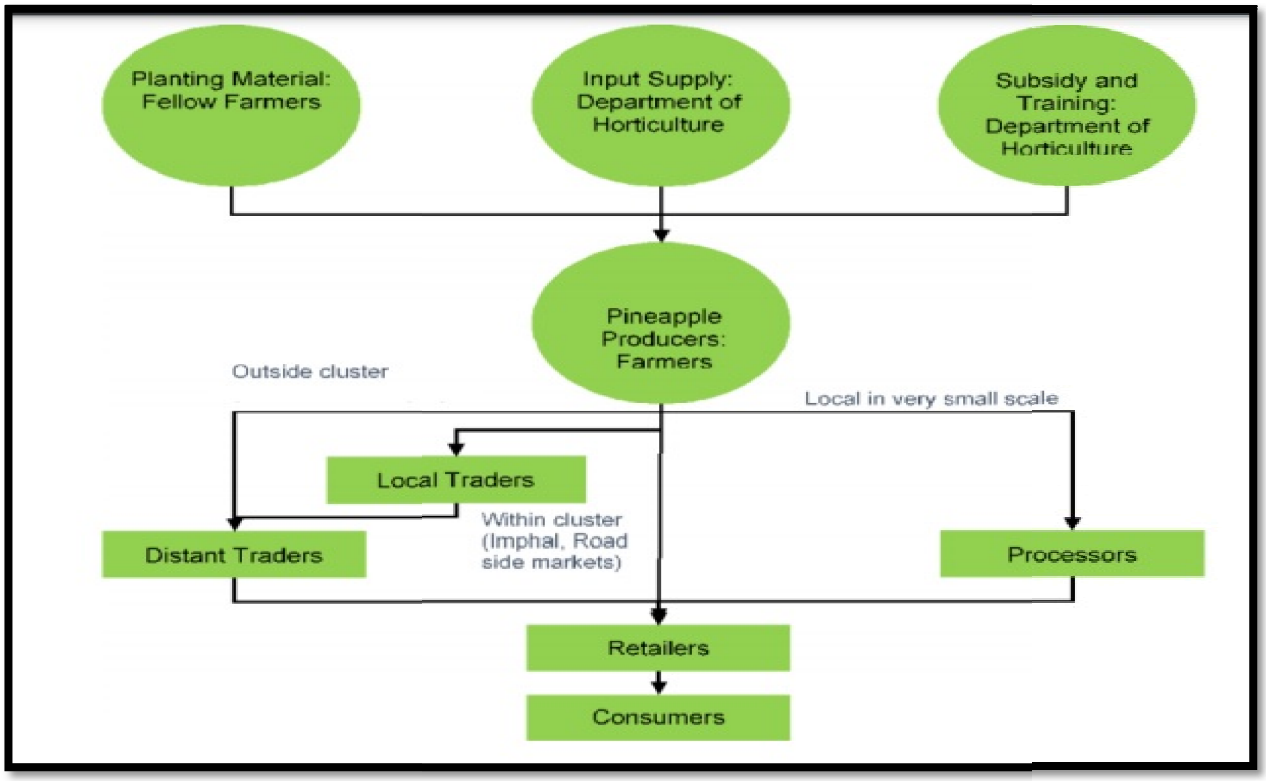
xiii. Sale of this product to other districts, and states and exported to other countries

Farmers sell fresh pineapple in the local market or sometimes to traders from other states also. Slice/Dice and fresh fruits are sold locally at Rs. 60 per kg and in the outside market for Rs 200 to 300 per kg. Candies (with sugar) and dried pineapple (without sugar) are sold in the range of Rs 200 to 500 per kg. Canned juice bottles are sold in the local market for Rs. 120 per liter while in another market for Rs 200 per liter. Jams and jellies fetch a good price with Rs. 750 per kg

All the processing enterprises are selling the processed products to the local retailers or in the local markets. There is no sale of processed pineapple produce to another state from the district.

5. Mapping the value chain aspects

Figure 8: Mapping the value chain aspects



Grower:

The pineapple growers undertake cultivation throughout the year.

Aggregator/Trader:

Considering the small quantum of produce at the individual level the aggregator/trader plays a key role in ensuring the product reaches the semi-urban/urban markets in and around the cluster.

Processor:

Some small-scale producers have their processing facilities in the district. All these units are mostly (micro)/small-scale industries. The average crushing/pulping capacity of these units varies from 0.5 to 1 MT/day.

Besides the above stakeholders, the State Directorate of Horticulture is responsible for providing extension services to the farmer including guidance on a package of practice, supply and distribution of organic fertilizers, and training on post-harvest management.

6. Understanding the Infrastructure constraints faced by Micro Enterprises:

A range of issues, with infrastructural constraints being the biggest hurdle of all and other gaps such as lack of awareness about the new technology in the pine apple processing food processing, lack of handholding support, issues with the marketability of the produce, and different govt. initiatives not making deeper inroads have all kept food processing in the district (and the state as a whole) at a very minimal level. Should these gaps be addressed, there is a huge inherent potential that can be leveraged for a remarkable shift in food processing.

Table 41: Infrastructure constraints faced by Micro-enterprises

Infrastructure	Up-gradation proposals
A) Public Infrastructure	• Farmers are facing crop losses during the transportation of the produce from the farm gate to the markets places. Due to poor connectivity to nearby districts, farmers are selling their produce at the farm gate to local aggregators and incurring losses during peak season. This is also restricting entrepreneurs to plunge into the food processing sector. • To overcome this issue state and central government should build/construct good roadways to connect nearby districts as well as states, which reduces crop loss during transportation and encourage farmers, and SHGs to enter into processing activity.

B) Common facilities	• Through the primary survey, it is noticed that Nagaland state pineapple fruit has a huge demand from nearby districts, states, and also from other countries but due to lack of infrastructure facilities produce is sold to the local traders and aggregators at a low price compared to the markets. • No value addition is being undertaken by the farmers at the field level due to the lack of infrastructure facilities in the district. • It is also proposed to set up common infrastructure facilities like cold storage structures, pack hoses, and warehouses for the processing enterprises which reduces the losses during the storage.
C) Testing facilities	• There are testing facilities in the district for processed products. All the existing enterprises who are processing the product are selling the product directly to the consumers and local retailers without any testing of the products according to the FSSAI Standards.
D) Safety standards	• It is proposed to set up a testing lab in the proposed incubation center and deliver access to the processing enterprises in the district for testing the produce.

7. Mapping the market potential of FPI micro enterprises

Dimapur is the largest pineapple-producing district in the state with 35000 tons production of pineapple; which in value terms is approximately INR. 30 crores. (calculated as ex-farmers price). The same when processed into different value-added products has the potential to fetch 3 times more, close to INR. 100 crores. Unfortunately, this is not the case and the level of processing is very minimal at around 5%.

D. Mapping the Firm level issues

Mapping firm-level issues				
S. No	**Sectors**	**Gaps**	**Recommendations**	**Costing (Lakhs)**
1	Skill training needs	• Lack of skills in branding and marketing of processed products. • Lack of skills in handling advanced machinery like pulper, fruit cutter, peeler,	• Provide training to the existing enterprises and new entrepreneurs on the standardized process of processing the product to maintain the steady	14

Mapping firm-level issues				
S. No	Sectors	Gaps	Recommendations	Costing (Lakhs)
		and packaging machine. • Lack of skills in the standardized process of processing the produce.	quality of the produce. • Providing skill development training on branding and marketing of the produce. • Providing skill development training on handling advanced machinery and new technology	
2	Manufacturing practices	• Approximately only 2% of pineapple crop produced in the district is processed and the rest of the crop is consumed as fresh within the district as well as exported to other districts and states in India.	• There is a great scope and potential to build a pineapple processing and manufacturing unit due to the availability of huge raw materials (Nearly 30% of Nagaland state pineapple production is contributed by Dimapur district only) and human resources. • Setting up of Common infrastructure facilities which can be used for processing different products line by the enterprises in the district.	400
3	Technologies	• There is no use of advanced machinery like sorting and grading machinery, fruit washer, pulper, fruit cutter, and packaging machines. • Lack of awareness about processing techniques.	• Provide advanced machinery at subsidized prices under the PMFME for individual and group enterprises.	1550
4	Access to finance	• The majority of farmers, SHGs, and local traders	• The proposed incubation center can be used in	275

Mapping firm-level issues				
S. No	Sectors	Gaps	Recommendations	Costing (Lakhs)
		are not aware of different financially supporting schemes and policies in the district. • Lengthy documentation process making difficult to avail the loans by the food processing enterprises.	attaining financial support for the enterprises by providing DPR and guiding the enterprises in attaining the support.	
5	Access to mentorship/service	• Poor Public infrastructure and no common infrastructure facilities in the district for the food processing enterprises • There is no testing laboratory in District	• An incubation center is proposed to be set up in the district for guiding the existing and new enterprises in the district	275

II)

Detailed cluster study for ODOP products

1. Industry and Market Analysis

1.1 Introduction

The pineapple (*Ananas comosus*) is one of the most popular tropical fruits. The origin of the pineapple is the American continent, probably Brazil and Paraguay. It has spread throughout tropical and subtropical regions as a commercial fruit crop.

The important pineapple-going countries of the world are the Hawaiian Islands, Philippines, Malaysia, Thailand, Brazil, Ghana, Kenya, Mexico, Taiwan, South Africa, Australia, Puerto Rico, and India. India produces more than 8% of the total world production of pineapple. The major pineapple-producing states in India are Assam, West Bengal, Karnataka, Meghalaya, Manipur, Arunachal Pradesh, Kerala, and Bihar.

In India, West Bengal is at the top position in terms of Pineapple production with 345.15 thousand metric tons production while Nagaland is in the sixth position with 132.83 thousand metric tons production.

1.2 Benefits of the product

- Treats cold and cough
- Good for teeth
- Prevents cancer
- Acid digestion
- Good for eyes
- Reduce symptoms of arthritis
- Prevents Hypertension
- Reduces risk of blood clots
- Contains antioxidants
- Prevents nausea
- Natural energizer
- Stress buster
- Treat acne
- Anti-aging properties

Nutritive Value and Health Benefits of the product

Pineapple is a good source of vitamin A and B and is fairly rich in vitamin C and minerals like calcium, magnesium, potassium, and iron. It is also a source of bromelin, a digestive enzyme. In addition to being eaten fresh, the fruit can also be canned and processed into different forms.

Nutritional value of Pine apple (per 100 g)

Table 42: Nutritional value of Pine apple

S. No	Particulars	Value
1	Moisture	81.2-91.2 g
2	Ether extract	0.03-0.29 g
3	Crude fiber	0.3- 0.6 g
4	Nitrogen	0.038-0.098 g

Table 42: Nutritional value of Pine apple		
S. No	**Particulars**	**Value**
5	Ash	0.21-0.49 g
6	Calcium	6.2 37.2 mg
7	Phosphorus	6.6-11.9 mg
8	Iron	0.27-1.05 mg
9	Carotene	0.003-0.055 mg
10	Thiamine	0.048-0.138 mg
11	Riboflavin	0.011-0.04 mg
12	Niacin	0.13-0.267 mg
13	Ascorbic acid	27-165.2 mg
Source: NIFTEM Report		

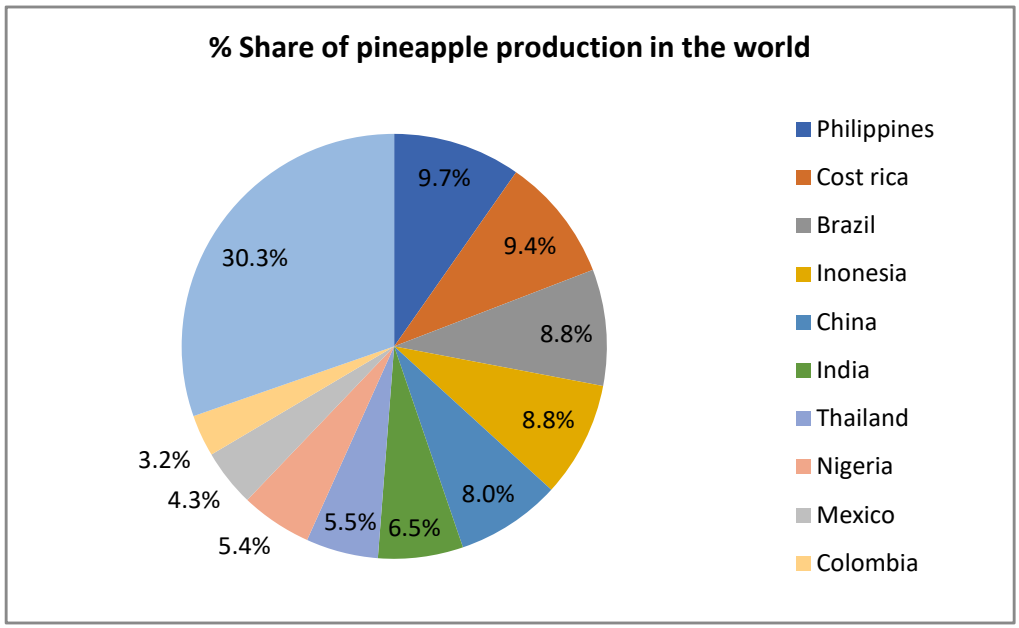
1.3 Global Market for the Product

Global Pineapple Production

The total global production of the pineapple crop in 2020 is 27816.40 thousand metric tons. The Philippines is the top producer of the pineapple crop in the world with the production of 2702.55 tons followed by Costa Rica with the production of 2624.12 tons. India is the 6th largest producer of the pineapple crop with the production of 1799 tons. The top 10 pineapple-producing countries in the world almost contribute 70% of the total pineapple production in the world.

Table 43: Global pineapple production			
S. No	**Country**	**Production (1000 MT)**	**% Share**
1	Philippines	2702.55	9.7%
2	Costa Rica	2624.12	9.4%
3	Brazil	2455.69	8.8%
4	Indonesia	2447.24	8.8%
5	China	2220.26	8.0%
6	India	1799.00	6.5%
7	Thailand	1532.51	5.5%
8	Nigeria	1508.20	5.4%
9	Mexico	1208.25	4.3%
10	Colombia	882.63	3.2%
	Total	**27816.40**	**100.0%**

Figure 9: The percentage share of pineapple production in the world



Source- Statista

Global Pineapple Exports

Global sales for pineapple exports by country totaled US$2.1 billion in 2020. Overall, the value of exported pineapples increased by an average of 8.2% for all exporting countries since 2016 when pineapple shipments were valued at $1.9 billion.

The top 5 exporters (Costa Rica, Philippines, Netherlands, United States, Belgium) generated just over three-quarters (76%) of all globally exported pineapples in 2020.
Among continents, Latin America excluding Mexico but including the Caribbean generated the highest dollar worth in international sales of pineapples during 2020 with shipments valued at $1.1 billion or over half (53.2%) of the worldwide total. In second place were Asian exporters at 18.8% while 18.5% of total shipments of the sweet fruit originated from Europe.
Smaller percentages came from North America (5.3%), Africa (4.3%) then Oceania (0.007%) notably New Zealand and Australia.

Below are the 15 countries that exported the highest dollar value worth of pineapples during 2020.

Table 44: Global Pineapple exports		
Country	Value	% Share
Costa Rica	US$922.7 million	44.4% of exported pineapples
Philippines	$307.7 million	14.80%
Netherlands	$189.8 million	9.10%
United States	$84.5 million	4.10%
Belgium	$75 million	3.60%
Ecuador	$59 million	2.80%
Taiwan	$55.8 million	2.70%
Honduras	$49.7 million	2.40%
Guatemala	$40.4 million	1.90%
Ghana	$31 million	1.50%
Ivory Coast	$28.7 million	1.40%
Spain	$25.7 million	1.20%
Mexico	$24.8 million	1.20%
Portugal	$18.2 million	0.90%
Germany	$16.9 million	0.80%

The listed 15 countries shipped 92.9% of global pineapples exported in 2020 by value.

1.4 Indian Market and Valuation for the Product

The bulk of the world's production of pineapple is used by the canning industry and the trade in fresh fruits is limited. About 97% of the world's output is utilized by the processing industry. Among the canned fruits, pineapples are important next only to peaches. The utilization of pineapple produced in India does not follow world patterns. Though pineapple is an excellent material to be preserved in different forms; the bulk of the pineapple produced in the country is consumed in fresh form, the production used for processing being less than 10%. This is in contrast to the principal producing countries, where over 95% of the pineapple is absorbed by the processing industry.

The processing industry for pineapple is not very well developed in India. Major constraints in the processing of pineapple are as follows:

- High cost of canning due to high cost of fruit, sugar, containers, and overheads.
- Non-availability of fruits throughout the year.

Marketing fresh pineapple also poses problems due to its highly perishable nature. Mature pineapple fruits cannot be stored for more than 4-5 days after harvesting. Therefore, it is necessary to take ample care to avoid any injury to fruits while transported to major consumption centers.

Steps like regulation of markets for pineapple and integration of production, marketing, and processing activities would go a long way in decreasing marketing costs and thereby encouraging cultivators for self-marketing. In recent times, grower's marketing co-operatives have come into service in Kerala, Karnataka, Orissa, Assam, and Manipur to undertake the marketing of fresh pineapple.

Development of infrastructural facilities (transport and communications), primary markets, improvement in packing, storage, and handling facilities, and subsidization of inputs are the various aspects that need attention.

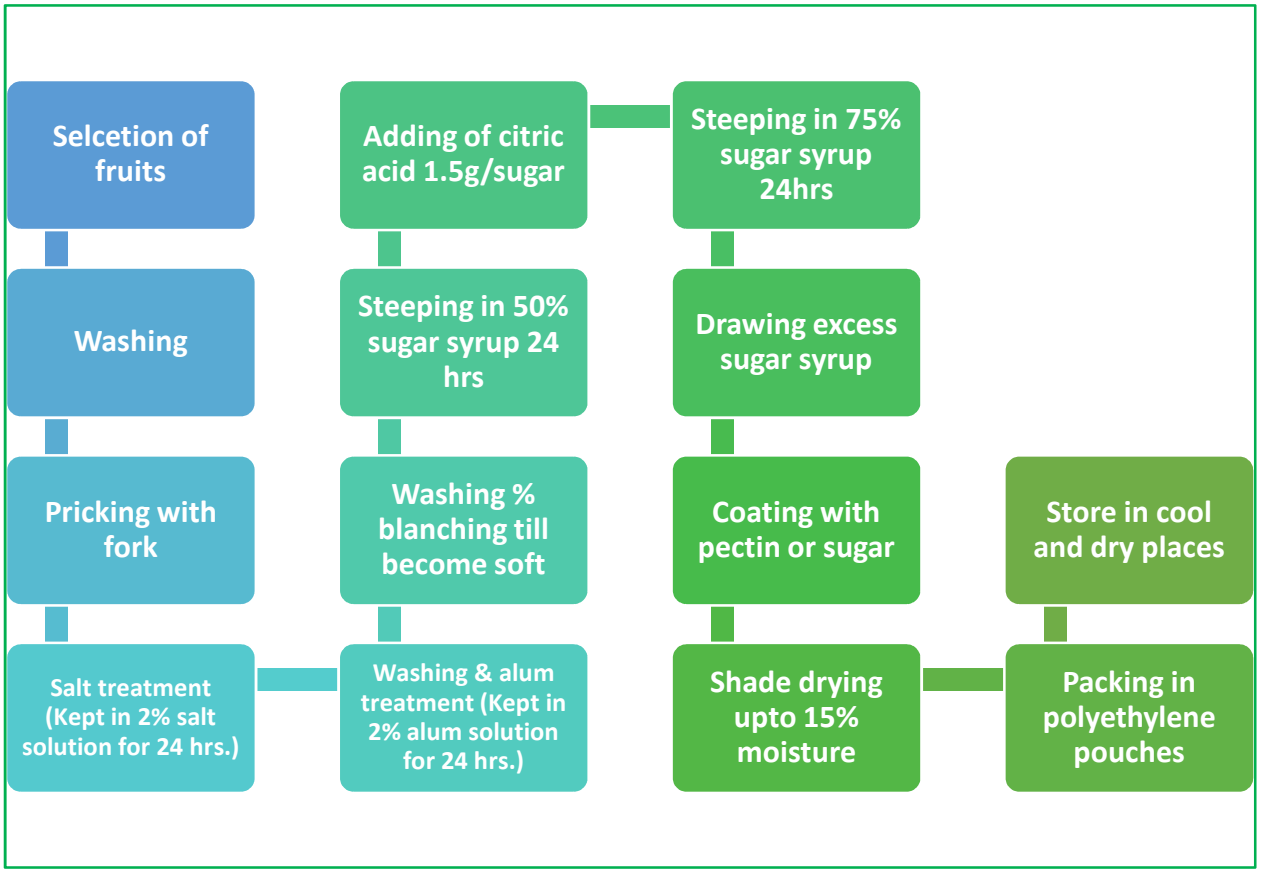
Asia is seen as the biggest growth market, both in terms of production and consumption. Over the last ten years, the market value of pineapples increased with an annual growth rate of over 5.8%. India, Thailand, China, the Philippines, and Indonesia account for 34% of all pineapple consumption in the world. The reason for the recent consumption growth can be found in the increasing population and income, causing the demand for fresh fruit to increase. Furthermore, canned pineapples, more affordable and convenient, are also becoming more popular in Southeast Asia. China has also started to cultivate more pineapples, whilst simultaneously importing more.

Over the last ten years, the export value of fresh pineapples has risen by 58.2%, as consumers are demanding more fresh fruits. On the contrary, the export value of canned pineapples declined by 4.5% during the same period.

1.5 Manufacturing Process

Pineapple has been known to be excellent for drying. In this product, most of the free water from the fruit is eliminated. To prepare, select fully ripe, fresh pineapple. Remove skin and eyes from the pineapple with a sharp knife. Usually, chunks or slices are prepared for better presentation and make handling easier. Final moisture is near 5%, and this allows the dried fruit to have a long shelf life as long as proper packing is provided and storage is done in a fresh place.

Figure 10: Flow chart for pineapple candy



Machinery equipment for pineapple candy processing- 150 MT/ Annum

Table 45: Machinery and equipment for pineapple candy processing

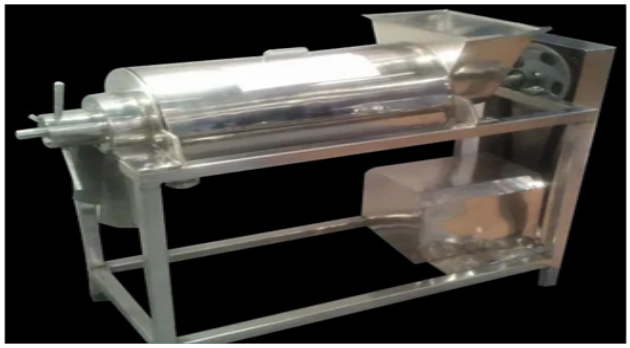
S. No	Equipment	Capacity	Quantity	Price (Lakhs)
1	Cold store Sq. meter	1	1500 kg	6
2	Fruit washing trough	1	500 liters	2.5
3	Fruit cutter	1	Manual	0.3
4	Core removal	4	Manual	0.06
5	Blanching kettle gas operated	1	300 liters	1.5
6	Sugar syrup tank	1	500 liters	2.4
7	Dryer	1	120 kg/ batch	2.2
8	Induction sealer	1	Suitable	0.3
9	Shrink tunnel	1	Suitable	0.35
10	Weighing balance	1	Suitable	0.06
11	Accessories	1	Suitable	0.5
	Total			**16.17**

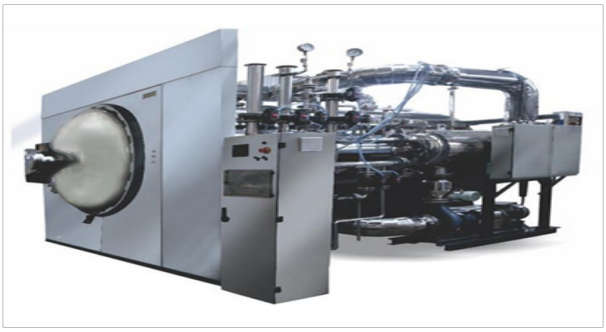
Pineapple juice:

Table 46: Machinery and equipment for pineapple juice processing		
S. No	**Equipment**	**Cost (Lakhs)**
1	Fruit sorting machine	2
2	Fruit washing machine	2 (500 kg/Hr)
3	Fruit peeling and extraction machine	1 (450 peels / Hr)
4	Spiral juice extractor	0.50
5	Juice fine filter	1
6	Vacuum degasser	1.5
7	Juice sterilizer machine	1
8	Juice filling machine	2.5
9	**Total**	**11.5**

Figure 11 Machinery used for pineapple processing.

1. Pine apple grading and sorting machine. 2. Juice extractor. 3. Dryer. 4. Juice sterilizer.5. Juice filling




1.6 Test is done for the Product – Collected by interactions with FSSAI personnel

Among the respondents (sample size is 64), none of the enterprises processing the pineapple crop (Candy and Juice) are testing the product as the majority of the units are operating at the household level and the quantity of the crop processing is very less and marketing of the product is confined only to the local retailers and local consumer.

Here elaborates a few different standards for fresh and processed pineapple and this information is provided based on secondary research.

Standards for fresh pineapple are below:

Minimum Requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the pineapples must be:

- whole, with or without the crown;
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean, practically free of any visible foreign matter;
- Practically free of damage caused by pests;
- Practically free of pests affecting the general appearance of the produce;
- Free of abnormal external moisture, excluding condensation following removal from cold storage;
- Free of any foreign smell and/or taste;
- Fresh in appearance, including the crown, when present, which should be free of dead or dried leaves;
- Free of damage caused by low and/or high temperatures;
- Free of internal browning;
- Free of pronounced blemishes.

When a peduncle is present, it shall be no longer than 2.0 cm, and the cut must be transversal, straight, and clean. The fruit must be physiologically ripe, i.e., without evidence of un-ripeness (opaque, flavorless, exceedingly porous1 flesh) or over-ripeness (exceedingly translucent or fermented flesh).

Maturity Requirements

The total soluble solids content in the fruit flesh should be at least 12°Brix (twelve Brix degrees). For the determination of Brix degrees a representative sample of the juice of all the fruit shall be taken.

Provisions Concerning Sizing

Size is determined by the average weight of the fruit with a minimum weight of 700 g, except for small size varieties3, which can have a minimum weight of 250 g, by the following table:

Table 47: Standards of fresh pineapple:

Standards of fresh pineapple:		
	Average Weight (+/-12%) (in grams)	
Size Code	with crown	without crown
A	2750	2280
B	2300	1910
C	1900	1580
D	1600	1330
E	1400	1160
F	1200	1000
G	1000	830
H	800	660

The test is done for the value-added products like Jam, Jelly, Candy, Frozen, dry fruit cuts, etc

Physio-chemical Test	Microbial Test
• Brix • pH • Acidity	• Total Plate Count • Yeast & Mold • E-coli • Salmonella

2. District Profiling

There are 219 grampanchayats in the district. There are almost 250-300 units of pineapple processing in the district. Medziphema circle is the main hub for Pineapple cultivation in the district. Bungsang and Molvom are 2 villages, with mono cultivation of pineapple. Almost all the 250 families in Molvom village are involved with Pineapple farming directly or indirectly. However, there is no specific farmer's organization or cluster for pineapple processing in the district.

2.1 Demographic and Socio-economic profiling

According to the 2011 census Dimapur District has a population of 379769. Dimapur has a sex ratio of 916 females for every 1000 males, and a literacy rate of 85.44%.
The District has a heterogeneous population with the majority comprising Naga tribes from all over Nagaland.

Table 48: Demographic and Socio-economic profiling				
S. No	Particular	Year	Unit	Statistics
1	Geographical features			
A	Geographical Data			
	i) Latitude			25°48' and 26°00'North Latitude
	ii) Longitude			93°30' and 93°54' East
	iii) Geographical Area		Hectares	92700
B	Administrative units			
	i) Sub Divisions			4
	ii) Tehsil			2
	iii) Sub-Tehsil			3
	iv) Patwar circle			7
	v) Panchayat Simitis			
	vi) Nagar Nigam			
	vii) Nagar Palika			
	viii) Gram Panchayats		Number	219
	ix) Revenue Villages		Number	219
	x) Assembly Area		Number	5
2	Population			
A	Sex wise			379769
	i) Male (Urban)	2011	Number	103662
	ii) Female (Urban)	2011	Number	93615
B	i) Male (Rural)	2011	Number	94501
	ii) Female (Rural)	2011	Number	87991
3	Agriculture			
A	Land Utilization			
	i) Total Area	2011	Ha	
	ii) Forest cover		Ha	7208.38
	iii) Non-Agriculture Land		Ha	
	iv) Cultivation of Barren Land		Ha	
4	Forest		Ha	40100
	Railways			
	i) Length of the rail line	2010-11	KM	Connecting 1) Guwahati

Table 48: Demographic and Socio-economic profiling				
S. No	Particular	Year	Unit	Statistics
				and 2) Dibrugarh
	Roads			
	a) National Highway	2010-11	KM	52
	b) State Highway	2010-11	KM	11
	c) Main District highway	2010-11	KM	372.50
	d) another district	2010-11	KM	100.82
	e) Rural Road/Agriculture Marketing Board Roads	2010-11	KM	271.86+71
	f) Kachacha Road	2010-11	KM	685.18
	Communication			
	a) Telephone connections	2010-11	Number	15109
	b) Post offices	2010-11	Number	53
	c) Telephone Centre	2010-11	Number	10
	d) Density of Telephone	2010-11	No.s /1000 person	N/A
	e) Density of Telephone	2010-11	No.s/KM	N/A
	f) PCO	2010-11	Number	1250
	g) PCO-STD	2010-11	Number	1350
	h) Mobile	2010-11	Number	25000
	Public Health			
	a) Allopathic Hospital (District Hospital)	2010-11	Number	1
	b) Beds in Allopathic Hospital	2010-11	Number	261
	c) Ayurvedic Hospital	2010-11	Number	Nil
	d) Beds in Ayurvedic Hospital	2010-11	Number	Nil
	e) Unani Hospitals	2010-11	Number	NA
	f) Community Health Center	2010-11	Number	60
	g) Primary Health Centre	2010-11	Number	36
	h) Dispensaries	2010-11	Number	4
	i) Sub-Health center	2010-11	Number	2
	j) Subsidiary Health Centre	2010-11	Number	4
	k) Private Hospitals	2010-11	Number	15
	IX) Education	2010-11	Number	
	a) Primary School	2010-11	Number	650
	b) Middle Schools	2010-11	Number	300

Table 48: Demographic and Socio-economic profiling				
S. No	Particular	Year	Unit	Statistics
	c) Secondary and Senior Secondary Schools	2010-11	Number	156
	d) Colleges	2010-11	Number	18
	e) Technical University	2010-11	Number	4

2.3 Industrial Profiling

In Dimapur district, there are altogether around 575 industrial units. Small scale industries employ 1250 people, while large and medium industries employ 150 people. Average turnover of small-scale industries is Rs4.5 lakh while the average turnover of medium to large-scale industries is around Rs. 10.50 lakh. There are four industrial recognized areas in the district.

3. Cluster Analysis

3.1 Location of the cluster

Medziphema circle is one of the 8 circles of the Dimapur district and is the Main hub of Pineapple cultivation in the district and contributes to almost all of the 15,000 tons of fruit produced. Medziphema is the pineapple cluster in the district based on the availability of the raw material and based on the number of food processing enterprises operating in the region. Medziphema circle contributes 50% of the pineapple production in the district.

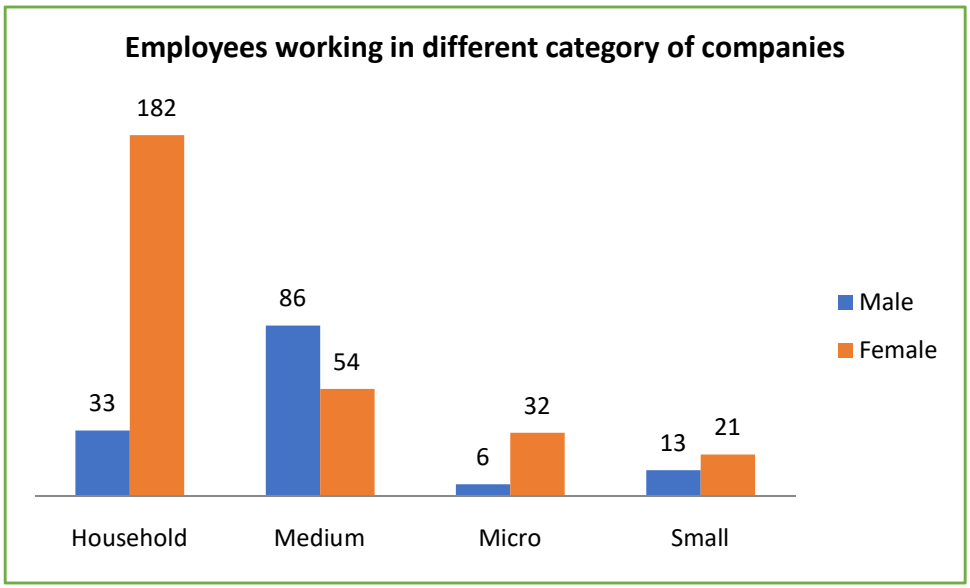
3.2 Turnover and Employment

Employment in ODOP processing units-

138 workers are engaged in processing the pineapple crop in the district. Among the total workers in pineapple processing, 50% of the total workers are engaged in household processing and 33% of workers are working in the medium enterprises in the district.

Table 49: Employment in ODOP processing units				
Mode of enterprise	**Male employees**	**Female employees**	**Total**	**% Share**
Household enterprises	33	182	215	50.4%
Medium enterprises	86	54	140	32.8%
Micro enterprises	6	32	38	8.9%
Small enterprises	13	21	34	8.0%
Total	138	289	427	100.0%

Figure 12: Number of Employees working in different categories of enterprises



Turnover:

Turnover of the 38 ODOP processing in the district is 55.13 lakhs i.e. on an average 1.45 lakhs per enterprise. 50% of the total turnover is generated by the household enterprises in the district.

Table 50: Turnover of the enterprises in the district

S. No	Enterprise	Turnover	% Share
1	Household enterprises	27.05	49.1
2	Medium enterprises	17	30.8
3	Micro enterprises	7.58	13.7
4	Small enterprises	3.5	6.3
	Total	**55.13**	**100**

3.3 Social Economic Profiles of the ODOP Producers

- It is observed from the primary survey that most of the unit owners belong to the age group of 35 to 60 years and their education level lies from intermediate to post-graduation
- Workers' age group lies between 20 years to 60 years and they have education up to intermediate.

3.4 Infrastructure

3.4.1 Essential amenities required for the production of the product

- Good quality road is the basic constraint in infrastructure, which plays a crucial role in transportation.

- Cold Storage- is the basic infrastructure required as pineapple is a highly perishable commodity.
- Machines- Fruit cutting machinery, Mini sealer, Pulverizer, Juice extractor, Automatic washers, peelers, Dryers, Packing machines, grinder, dehydrator, etc.
- Skilled labor is required for the industry as preparing finished processed products requires skill in food technology.
- A formal cluster needs to be formed to gather all processors involved in the pineapple processing under one roof in the district

3.4.2 Existing infrastructure

There are 2 cold storage structures in the district. The cold storage capacity is 6150 MT which accommodates multi-purpose commodities.

Table 51: Cold storage in Dimapur district

S. No	Name and Address	Capacity in MT	Sector	Commodity
1	MARCOFED cold storage, Dimapur	1150	Cooperative	Multipurpose
2	L. Doulo Builders and Suppliers Co (P) Ltd, Dimapur	5000	Private	Multipurpose
	Total	**6150**		

Source- APEDA

There is no incubation center in the district for the mentorship and guiding the food processing enterprises in the district and there is no common facility center like a common processing area or primary processing line or common transportation like reefer vans etc. to reduce the post-harvest losses and better use of the raw material in the district.

To support the existing and new food processing enterprises in the district, we are proposing one incubation center and a common infrastructure facility center with 3-4 processing lines which is used on a hiring basis.

3.4.3 Additional infrastructure required

Cold Storages-Cold storage is the basic requirement as pineapple is a perishable commodity. Both plus and minus temperature cold storage should be provided to store fresh and processed products

Refer Vans-Temperature controlled reefer van required in logistics to transport finished goods in the district or outside the district

Warehouses-Warehouses is required for storage of finished processed product like candy, jam, jellies, etc

Machinery required-Fruit cutting machinery, Mini sealer, Pulverizer, Juice extractor, Automatic washers, peelers, Dryers, Packing machines, grinder, dehydrator, etc.

Good quality Roads-Good quality roads are the basic infrastructure required for any kind of processing industry. This basic infrastructure is lacking in the district. Hence it is required to construct good quality roads and their proper maintenance.

Marketing and Branding of the product-There is no proper markets place for the producers to sell their produce. Existing markets do not have minimum infrastructures such as trading platforms, storage, or utilities. There is a need to develop community markets, facilities for trading, price information, etc

There are few ideas given for the branding of the produce

Brands in fruits are certainly adding value to the fruit and are important to distinguish one pineapple from another. Particularly if we focus on the higher-income consumers who are more sensitive to proof of quality, taste, or health benefits all of which can be expressed by branding

- Developing or positioning a brand is certainly important in a competitive market
- Be distinctive by developing an 'origin' brand
- Registration of Geographical Indication
- Type-Organic/Inorganic
- Nutrition facts
- Webpage development
- The use of pictures. it is very important to use good pictures showing the pineapples, their use/applications, and your aimed consumer group enjoying them.
- Product presentation and promotion of pineapple varieties are presented as any other fruit to buyers or consumers in the supermarket. Most consumers look at the size, shape, and color and generally have a preference for the color yellow/orange as this is associated with ripeness.

3.5 Raw material

The quality parameters being checked for all the raw materials

- Size and Shape of the fruit
- Maturity of the fruit
- Moisture Content

Whether the raw materials are perishable

Raw material i.e. pineapple is highly perishable hence there is a requirement for cold storage

3.6 Production Process

The pineapple fruit is processed into a range of refreshing food products. The popular products prepared using pineapple are sliced, juice, squash, powder, halva, jam, candy, pickles, chutney vine, etc.

Figure 13: Flow chart for pineapple candy

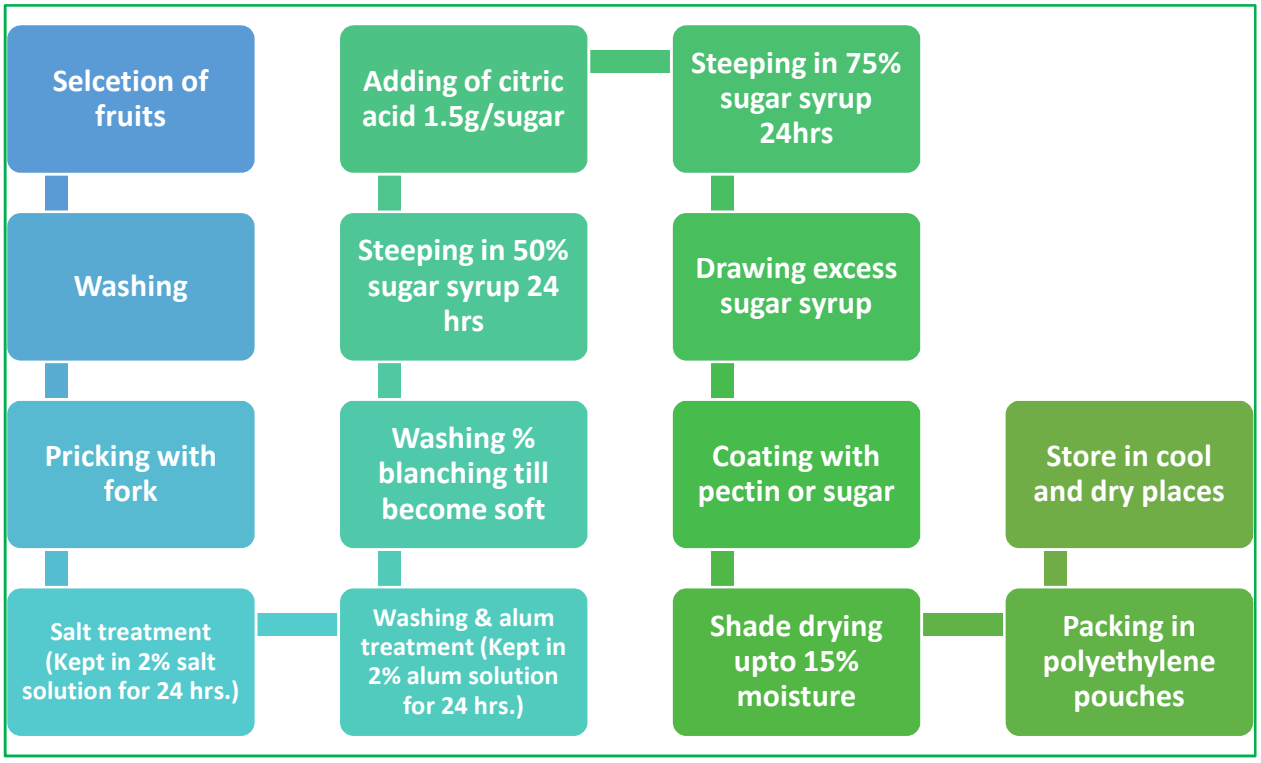
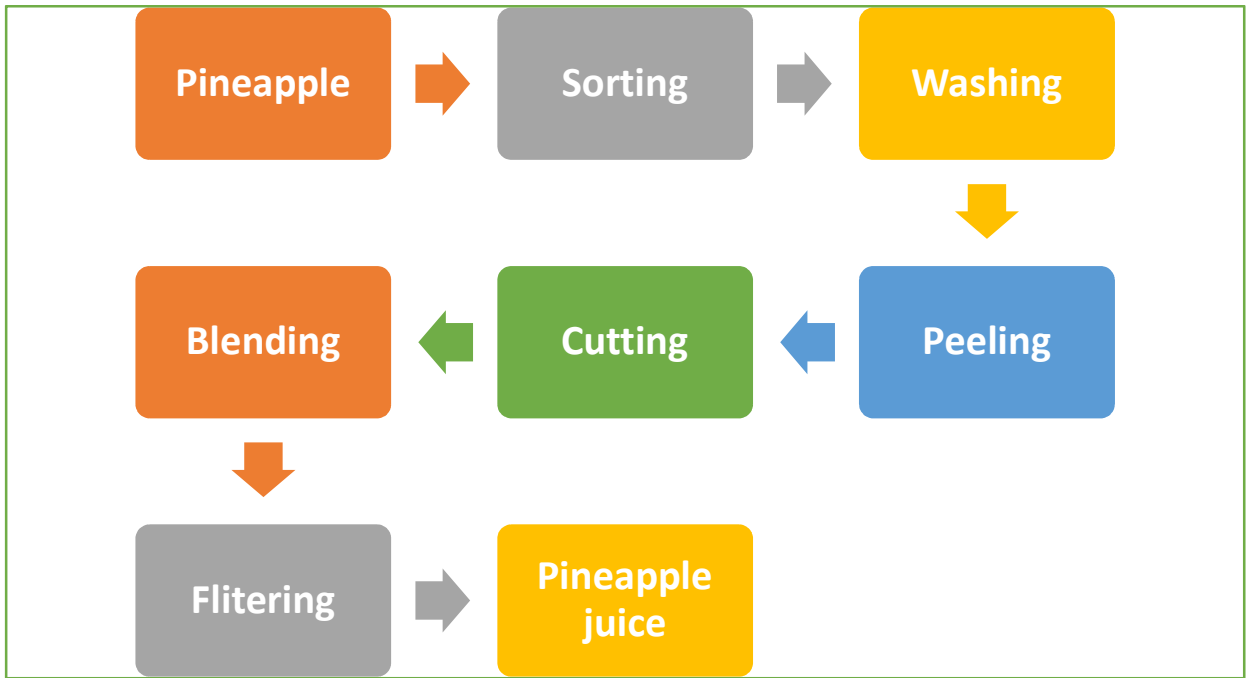


Figure 14: Flow chart of pineapple juice



3.7 Product Range

- Pineapple Slice/Dice/Chunks
- Pineapple canned Juice
- Squash
- Dry Pineapple
- Candy
- Jam, Jellies
- Pickle

3.8 Technology

Osmo-Air Dehydrated Pineapple slices-

Osmo-air dehydration is a novel approach to the dehydration of fruits. It involves two stages of dehydration. The first stage is the removal of water using sugar syrup as an osmotic agent. The second stage is dehydration in an air circulation drier where the moisture content is further reduced to about 15%. The process is found to give a better-dehydrated product, which would be nearer to fresh fruit from a color, flavor, and texture point of view. Sugar syrup is found to have a protective effect not only on the retention of fresh fruit flavor during drying but also during subsequent storage.

Machinery and Equipment:

All the machinery and equipment required in this process are indigenously available. If the process is taken up by an existing pineapple processing unit, the additional investment required is only about Rs.60,000/- on a 96 tray cross flow air drier, for producing about 100 kgs. of dried products per day of 10 hours working using 1.38 tonnes of pineapple. For a new unit, the total investment in plant and machinery would be approximately 1.7 lakhs for the same capacity of 100 kgs. of finished product a day.

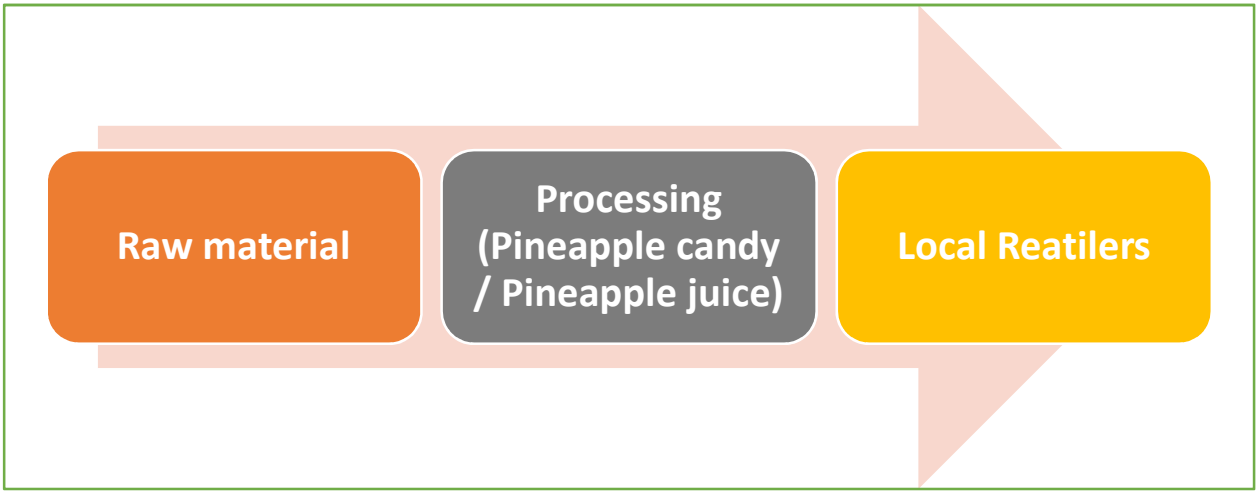
Source: CFTRI

3.9 Marketing

Slice/Dice and fresh fruits are sold locally at Rs. 60 per kg and in the outside market for Rs 200 to 300 per kg. Candies (with sugar) and dried pineapple (without sugar) are sold in the range of Rs 200 to 500 per kg. Canned juice bottles are sold in the local market for Rs. 120 per liter while in another market for Rs 200 per liter. Jams and jellies fetch a good price with Rs. 750 per kg

All the processing enterprises are currently selling the product locally to retailers and local consumers. There is a need to link the local enterprises with other markets in the district and states through branding the product and encouraging the local enterprises to participate in exhibitions and trade fairs.

Figure 15: Marketing Flow



3.10 Human Resource

Abundant human resources are available in the district that takes care of the operations management, labor, accounts, and other departments in the pineapple processing industry.

Employment in ODOP processing units-

138 workers are engaged in processing the pineapple crop in the district. Among the total workers in pineapple processing, 50% of the total workers are engaged in household processing and 33% of workers are working in the medium enterprises in the district.

Table 52: Number of workers in the ODOP processing units

Mode of enterprises	Male	Female	Total	% Share
Household enterprises	33	182	215	50.4%
Medium enterprises	86	54	140	32.8%
Micro enterprises	6	32	38	8.9%
Small enterprises	13	21	34	8.0%
Total	138	289	427	100.0%

3.11 Skill Development

Standardized process- Existing and new processing units in the district need to be trained on the standardized processing of the pineapple crop in the district to increase the quality of the crop over time.

Handing advanced technology- The majority of the units in the district are manually processing the crop. Need to be trained in handling the advanced machinery to increase the quality and quantity of the crop.

Skill development on branding and marketing- All the units in the district are marketing the processed products to the retailers in the local. There is a need to train the units in the district on marketing and branding the processed products to increase the marketing linkages of the produce.

3.12 Testing

There are no testing facilities for the food processing enterprises in the district. It is proposed to set up the testing facilities in the incubation center in the district.

3.13 Institutional Support

The Bankers, MOFPI, NABARD, Horticultural department, and Marketing departments who are directly and indirectly involved with the micro food processing industry are extending their support for the growth of the industry with the implementation of schemes that are beneficial to unit holders.

3.14 Support Infrastructure

Public infrastructure such as Road connectivity to the enterprise needs to be strengthened as the quality of the connectivity is low when compared to other states. There is a lack of continuous flow of electricity and water to the enterprises in the district which need to be developed.

Good quality roads with good connectivity with other districts and states, Warehouses, Cold storage, Reefer vans, and advanced machinery are the major infrastructure for food processing.

3.15 Financial Linkages

NRLM facilitates building a bridge for universal access to affordable cost effective reliable financial services to the poor through their SHGs and their federations. These include financial literacy, bank account, savings, credit, insurance, remittance, pension, and counseling in financial services.

Capitalizing institutions of the poor-

NSRLM provides Revolving Fund and Community Investment Fund (CIF) as Resources in Perpetuity to the institutions of the poor for meeting their credit needs for both consumption purposes and also for investment in livelihoods promotion. This fund is a corpus /capital resource for institutions of the poor. Largely this fund is used for on-lending to the SHGs for providing financial assistance. This also strengthens their institutional and financial management capacity and builds their track record to attract mainstream bank finance.

- Revolving Fund (RF) is provided to SHGs as a corpus to meet the members' credit needs directly and as catalytic capital for leveraging repeat bank finance. RF is given to SHGs that have been practicing 'Panchasutra' (Regular meetings; Regular savings; regular inter-loaning; Timely repayment; and Up-to-date books of accounts).

- Community Investment Fund is provided as Seed Capital to SHG Federations at the Cluster level to meet the credit needs of the members through the SHGs/Village Level Organizations and to meet the working capital needs of the collective activities at various levels.

- Vulnerability Reduction Fund (VRF) is provided to SHG Federations at the Village level to address vulnerabilities like food security, health security, etc., and to meet the needs of the vulnerable persons in the village.

Access to credit-

NSRLM expects that the investment in the institutions of the poor would leverage the bank credit of at least Rs.1,00,000 /- accessible to every household in repeat doses over the next five years. For this, SHGs go through Micro-Investment Plan (MIP)/Micro Credit Plan (MCP) process periodically. MIP/MCP is a participatory process of planning and appraisal at household and SHG levels. The flow of the funds to members/SHGs is against the MIPs. The rural poor need credit at a low rate of interest and in multiple doses to make their ventures economically viable. To ensure affordable credit, DAY-NRLM has provided interest subvention for all eligible SHGs to get loans at 7% per annum from mainstream financial institutions. Further, an additional 3% interest subvention is available only on prompt repayment by SHGs in most backward 250 districts. Making poor the '*preferred clients of the banking system and mobilizing bank credit*' is core to the DAY-NRLM financial inclusion and investment strategy.

SHG Credit linkage-

To facilitate bank linkages, State Level Bankers' Committees (SLBC) have constituted an exclusive sub-committee for SHG bank linkages and financial inclusion in NSRLM activities. Similarly, District Level Coordination Committees and Block Level Coordination Committees review SHG-Bank linkages and NSRLM.

SHG members are fostered as Bank Facilitators (Bank Sakhi) to drive Financial Inclusion in their community. They facilitate close interaction between the community and the Bank Branch in addressing the financial needs of the SHGs, and for 100% recovery of loans through Community Based Recovery Mechanism (CBRM) positioned in the banks. CBRM is monitored by the 'Sub Committee on Bank Linkage and Recovery of Loans' under the Village Level Organisation.

To ensure banking services is delivered at the doorstep of unbanked and underbanked area, SHG members are engaged as Business Correspondent (BC) as an alternate banking solution for the rural community.

NSRLM works towards increasing the portfolio of products of savings, credit, insurance (life, health, and assets), and remittance through the institutions of the poor directly or in partnership with mainstream financial institutions using various institutional mechanisms and technologies.

Source-"Nagaland State Rural Livelihoods mission", GoN.

3.16 Environmental Impact: no such impact

Most of the units are in the category of household and small scale. As of now, there is no adverse impact on the environment.

3.17 Cluster Actors

No skilled and semi-skilled Workers

Altogether about 1,51,350 workers are available in the district, out of which 66, 945 are male and 51, 705 are female workers available in the district.

Almost 634 workers are engaged in the pineapple processing units out of which 176 are male and458 are female workers

Manufacturers

Individual enterprises

Individual enterprises like Cold Mountain, Pristine Foods, Farmers Square, C2N Organic Trove, etc.,

SHGs-

They are all cottage industries located in villages, producing pine apple products seasonally. If proper financial support is given, they can emerge much better within the given circles.

Household/Small/Micro Unit Owners – approximately 64

Raw Material Supplier- Pineapple Growers

- Pineapple growers in the district supply fresh fruit to the wholesalers or traders in the district to get cash immediately. Few growers supply raw materials directly to small processors in the district.
- Wholesalers or traders supply the material to processing units in the district.
- Muolsang Organic Pineapple Producers Company- only one FPO working for pineapple cultivation and production.

Enterprise Promotion Councils-

There is no enterprise promotion council existing in the district to promote processed products.

Financial Institutions

Nationalize banks are extending loans to purchase the machinery as well as towards working capital to the unit holders.

Marketing Players

- It is a regular practice of pineapple growers in the district to send fresh fruit to the local traders or wholesalers

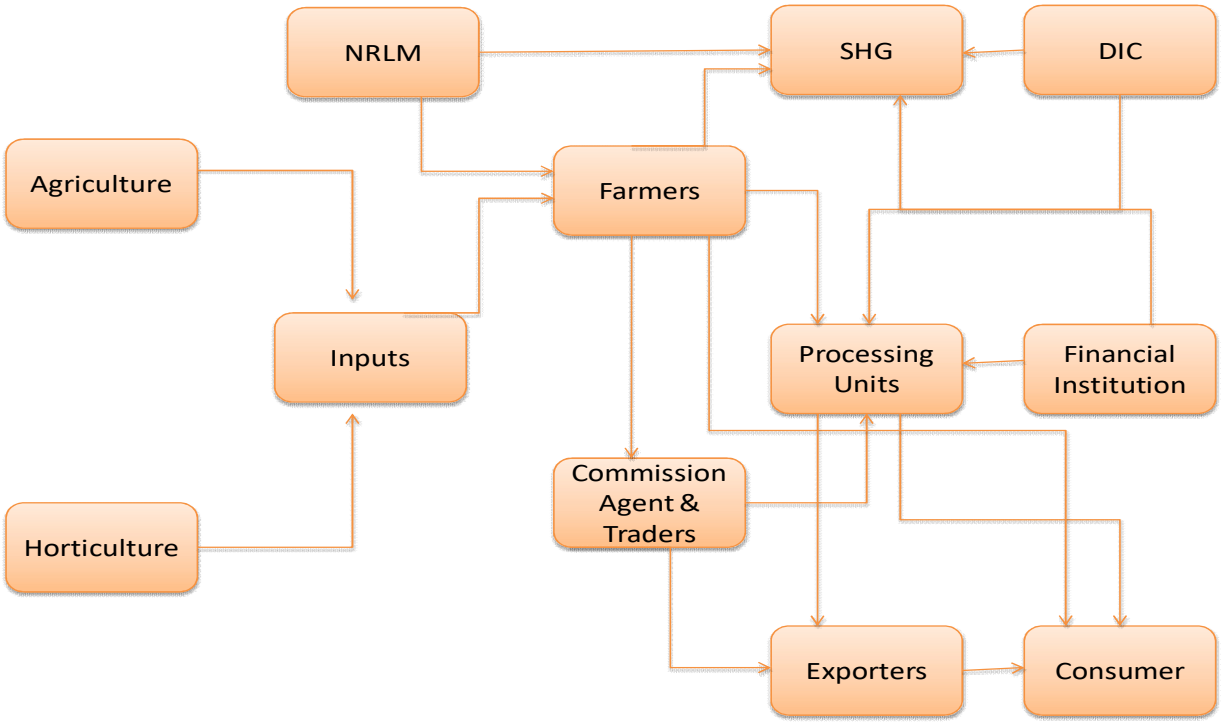
- The traders/agents/aggregator who collect the raw material from growers in each village supply it to the small or big processor
- Muolsang Organic Pineapple Producers Company sells produce to traders or small processors directly.
- **SHG**- involved in pineapple processing sell produce in the district or outside the district
- **Processor:** Some small-scale producers have their processing facilities in the district. All these units are mostly (micro)/small-scale industries. The average crushing/pulping capacity of these units varies from 0.5 to 1 MT/day.

3.18 Existing Government Schemes

All schemes from MOFPI, PMFME, and the Nagaland government are mentioned in detail in point's number 2.1, 2.2, and 2.3 of this document.

3.19 Cluster Map

Figure 16: Cluster Map



3.20 Value Chain

Table 53: Value chain of the produce

S. No	Particulars	Activities	Purchasing price (Per Kg)	Selling price (Per Kg)	Difference in (Rs)
1	Farmer	Cultivation		30 to 40	
2	Trader	Primary processing, Storage, and Transport	40	60	20
3	Microprocessor	Processing (45% pulp recovery)	60	200	140
4	Retailer	Storage and distribution	200	220-250	30-50

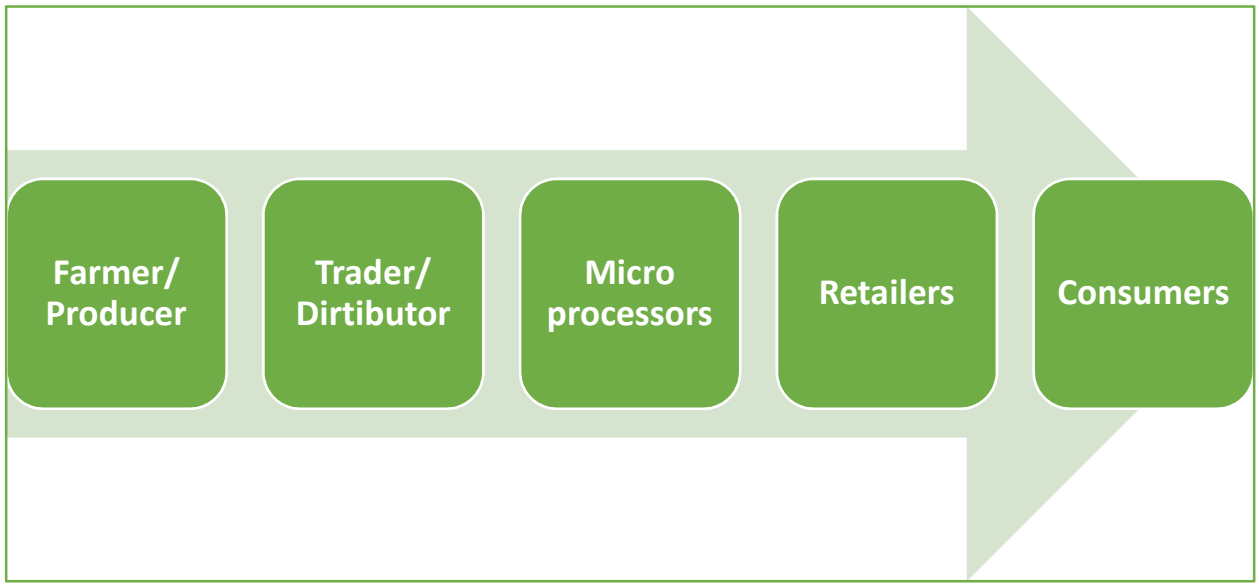
Grower: The pineapple growers undertake cultivation throughout the year.

Aggregator/Trader: Considering the small quantum of produce at the individual level the aggregator/trader plays a key role in ensuring the product reaches the semi-urban/urban markets in and around the cluster.

Processor: Some small-scale producers have their processing facilities in the district. All these units are mostly (micro)/small-scale industries. The average crushing/pulping capacity of these units varies from 0.5 to 1 MT/day.

Besides the above stakeholders, the State Directorate of Horticulture is responsible for providing extension services to the farmer including guidance on a package of practice, supply and distribution of organic fertilizers, and training on post-harvest management.

Figure 17: Movement of the pineapple crop in the district



3.21 Product Cost Analysis

The total cost required to produce one kilo of pineapple candy is INR 169 and processors are selling for INR 200 and getting a net profit of INR 31.

Table 54: Product cost analysis

S. No	Particulars	Amount per unit (Rs.)
1	Raw material	58
2	Packaging material	5
3	Labor	5
4	Manager	2
5	Electricity	1
6	Transportation	1
7	Miscellaneous	2
8	Loss in processing	60
9	Other raw material (Sugar Syrup)	35
10	**Total**	**169**
11	Selling price	200
12	**B: C Ratio**	**1.2**

3.22 SWOT Analysis

Table 55: SWOT analysis

Strength	Weakness
• Ample amount of raw material availability in the district as Dimapur is the largest pineapple-producing district in the state. • Pineapple from Dimapur district is famous for its sugar content and organic nature • Health benefits are associated with the consumption of the produce. • Increase in the consumption of fruit juices in the country.	• Less awareness about government support and schemes for the processing industries in the district • No formal organization or cluster is available for pineapple processing units. • Lack of essential infrastructure like roads, cold storage, warehouses, etc. • Lack of financial support to expand the existing unit and lack of skilled labor. • Low shelf life of the processed produce.
Opportunities	**Threats**
• Increasing demand in the global market and local market as well. • Opportunities to build brand and marketing. • Support from the state and central government for the existing and new food processing enterprises. • Growing demand for organic pineapple in the country.	• Stiff competition from existing companies • Climate change and other factors are leading to a decrease in production.

4. Benchmark studies

National level

The success story of the "Meira foods private limited".

Meira foods is a food processing unit registered under the director of commerce and industries and the government of Manipur. It is run and managed by women only and is committed to empowering women. Products are available in the market in the name of Meira candy, Meira salty, and Meira Pickles.

Meira foods were established in the year 2004 under the sponsorship of the small industries services institute (SISI). A training camp on processing fruits and vegetables was conducted under ACT-M at Bamon leikai. About 30 women from different parts of Imphal, Thoubal, and Bishnupur got training.

Meira foods stated from Zero investment. In the year 2004 – 2005 our turnover was just Rs. 30,000 (thirty thousand), during 2005 – 2006, it was Rs. 1 lakh. They continued to expand and in the year 2012 - 2013, the turnover was 75 lakhs. And now the turnover is crossed 1 core.

Meira founder says, To date, we have taken only Rs. 2 lakhs loan from SIDBI for purchasing one packaging machinery for which I had to spend another 2 lakhs of rupees to make it functional, (printing the packaging material). I'm a little hesitant to take a loan or approach a bank, because of their unwelcoming attitude toward women entrepreneurs, and their laborious paperwork. Sometimes I feel that, if I could grow without the help of a bank, we will grow further.

Products-

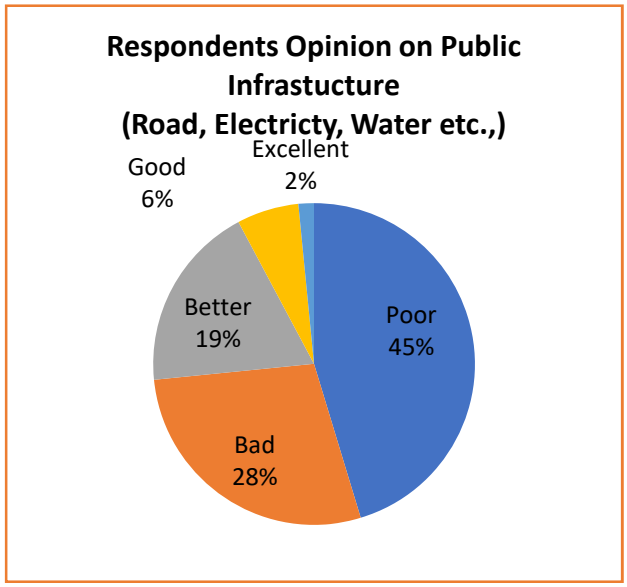
Meira's products consist of mainly pickles, candies, and salted dry fruit items. The uniqueness of Meira's products is that all the products are prepared from the indigenous fruits and vegetables of Manipur.

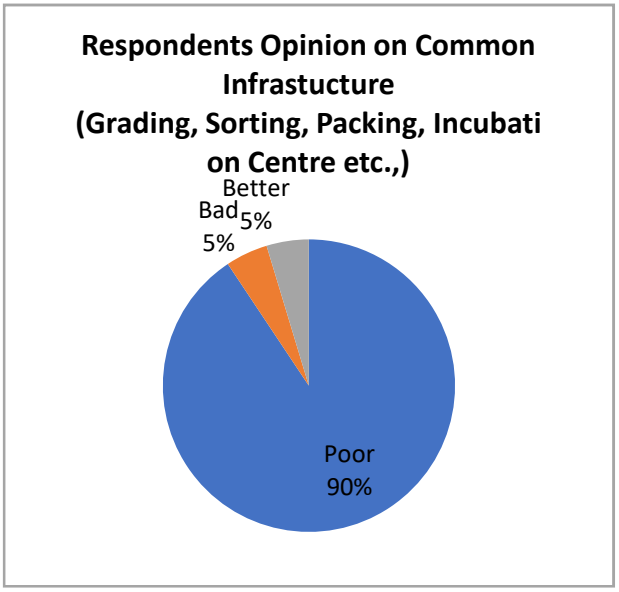
5. Stakeholder Consultation

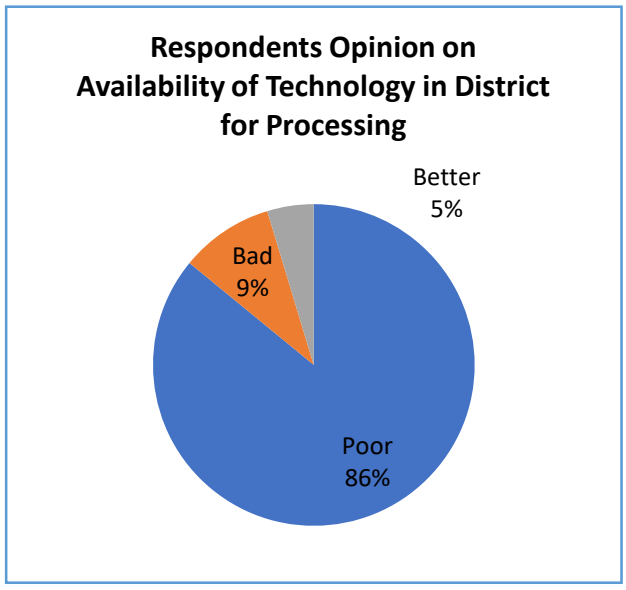
5.1 Individual Meetings –

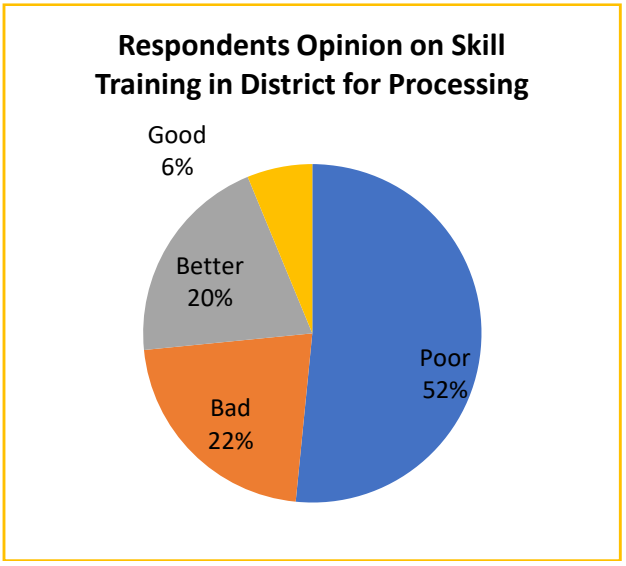
A Survey of 64 pineapple processing units is done through face-to-face meetings. To understand their perspective about business and other factors related to processing industries. All the information mentioned in the questionnaire is filled in the individual meetings.
The below pie chart is prepared based on the opinion of respondents on existing public infrastructure, common infrastructure, availability of technology, and skill training for processing ODOP products.

Figure 18: Individual meeting









5.2 Agenda Points and discussions

The points discussed are;

- Availability of technology
- Scope for processing
- Common Infrastructure facilities
- Logistic
- Branding and Marketing

Minutes of Meeting with Various Stakeholders;

- The processing is happening at a very small scale and small processors have adopted the traditional method of processing.

- The availability of new technology or modern method of processing (using semi-automated and automated machinery) is lacking.
- There is no availability of common infrastructure facilities such as incubation center, grading, sorting, and packing units
- Transportation is a huge problem in the district
- The marketing of products is a challenge in the district due to logistic problem
- There is a huge scope for organic pineapple products in the district as well as in nearby districts
- There is a high requirement for skill training and development for micro and small processors
- The majority of the micro and small processors are selling value-added products without brand. They require training and exposure to build the brand, logo, and knowledge on labeling and packing of the produce.

6. Need Assessment and Gap Study

Table 56: Need assessment and Gap study

Gaps	Remarks
Skill Training	• Skill development training is required on processing according to the FSSAI standards, good processing methods, plunging into new product line (Pineapple jam/ Puree/ Pulp), Export Documentation, Packaging, Branding, and Marketing of the processed products.
Technology	• Lack of awareness and lack of financial support for the food processing enterprises in the district to purchase advanced food processing machineries like sorting and grading machines, fruit cutters, core removal dryers, and induction sealers used for processing pineapple candy and pine apple dried slices.
Marketing and Branding	• Almost 60% of the total 38 ODOP processing enterprises are operating at the household level which is headed by either the women or unemployed youth in the district. The majority of the processing enterprises in the district are selling the produce to the local retailers or selling at the household level and there is specialized marketing and branding of the processed product. It is recommended to create a common brand and marketing support for the enterprises. Skill development training on branding and marketing will have a positive impact on the sale of the produce.
Finance	• Financial support to farmers, SHGs, and local traders will boost and encourage them to start processing fish.

Access to Mentorship/Service	• There is no institutional mechanism for accessing knowledgeable mentorship. • One Incubation center is proposed in the district to mentor/ support the existing and new enterprises in the district in technology transfer and skill development.
Infrastructure -Public Infra, Common Facilities, Testing Facilities, Safety Standards	• A good quality road is a basic constraint in infrastructure, almost every respondent mentioned about quality and connectivity of roads. Due to the poor quality of roads, transportation is getting affected. • Common Infrastructure facilities like Cold storage, pack houses, warehouses, and trading platforms, are recommended to reduce the loss of the crop post-harvesting. • There is no food testing lab in the district. A food testing lab needs to be set up in the proposed incubation center to increase the quality of the processed product.
Cluster	• Though there is good scope for pineapple processing in the district as processors wish to expand their unit with financial assistance, there is a lack of formal clusters for pineapple processors. There should be a formal cluster that will bring together all household, small, and micro-processing units from different districts under one cluster. If the cluster is formed then there is the possibility of expanding the domestic and export market.

Marketing and Branding

There are many food processors at the home scale level, by women folks or unemployed youth. But there are no market linkages. They sell in a disorganized manner. So the first effort should be to create a market for them.

The areas to be covered in Training and marketing are: Standardization of products, common packaging, and branding, improvement in product quality and processing methods, need for up gradation of equipment, training, a system of procurement, labs for quality control, need for common infra and warehousing, etc.

For branding, there is an umbrella brand, being driven by NSAMB, i.e “Naturally Nagaland”, which is a way of promoting the “Organic” brand of Nagaland. Pineapple needs to be pushed aggressively within this brand, (which is not seen much now), and also independently, promoting the strengths of Nagaland Pineapple.

The effort should be to reach out to Metros and highlight the features of Nagaland Pineapple: **Organic, Natural, High sugar content, Size of Pine Apple**

Rating of Response Count (Based on Primary Survey)

Rating 1 is considered as poor and Rating 5 is considered excellent.

Table 57: Rating of response count								
S. No	Particular	Response Count						Total
	Ratings	1	2	3	4	5	Not Responded	
1	Public infrastructure such as roads for backward and forward linkages	29	18	12	4	1	0	64
2	Access to common facilities such as grading, sorting, packaging, cold chain facilities, etc.	58	3	3	0	0	0	64
3	Access to testing facilities	56	5	0	3	0	0	64
4	Compliance with standards and the frequency of inspections from the safety regulators	46	9	6	3	0	0	64
5	Skill training needs	33	14	13	4	0	0	64
6	Manufacturing practices	53	6	5	0	0	0	64
7	Technologies Available	55	6	3	0	0	0	64
8	Access to finance	43	15	4	2	0	0	64
9	Access to mentorship/ service	49	7	5	3	0	0	64
10	Awareness of Govt Policies among micro /small manufactures	38	9	8	6	3	0	64
11	Awareness of ODOP products in the District	30	6	7	11	10	0	64
12	Marketing/sales facilities	28	54	8	2	1	0	64
13	Facilities for the workers	53	4	4	3	0	0	64

Public infrastructure such as roads for backward and forward linkages – Most of the respondents rated it on a scale of 1, 2,3 which means it is in poor condition and needs to look into it on a priority basis.

Access to common facilities such as grading, sorting, packaging, cold chain facilities, etc – Facilities like cold storage is very essential

Access to testing facilities – The majority of respondents mentioned there is a dire need for testing facilities in the district

Compliance to standards and the frequency of inspections from the safety regulators – the majority of respondents expressed that they are not undergone any kind of inspection concerning safety regulators.

Skill training needs– need for training rated on 1, 2, and 3 rd scale, means there is a need for training to the workers engaged in pineapple processing

Technologies Available – Lack of technology and lack of advanced machines in the units.

Access to finance – Financial assistance is very important almost for every respondent to expand their existing units as well as to purchase advanced machines.

Access to mentorship/ service – most of the respondents mentioned the need for mentorship to upgrade their business and livelihood.

Awareness of Govt. Policies among micro /small manufacturers –There is no awareness of any government schemes.

Awareness of ODOP products in the District –The majority of respondents are aware of ODOP in the district.

Marketing/sales facilities – Most of them expressed that they need proper training in marketing and branding to improve their business.

7. Recommendations

7.1 Vision Statement and Key Objectives for SLUP

Vision Statement: To increase the quantity of pineapple processing from the existing 2% of the total crop production to 5% to 10% of the total crop production in 3 to 5 years.

Objectives:

- Training and financial support to the existing individual and group units in the district.
- Promoting new enterprises in pineapple processing.
- Creating the branding and marketing opportunities for the processed products in the district.
- Creating a common facility center for the processing units.

7.2 Project Strategy and Interventions

Before devising the intervention strategy, let us understand the context of processing in the district.

Pine apple production in Dimapur, the largest producing district, is 35,000 tons, which in value terms is approximately INR. 30 crores. (Calculated as ex-farmers price). The same when processed into different value-added products has the potential to fetch 3 times more, close to INR. 100 crores. Unfortunately, this is not the case and the level of processing is very minimal at around 5%. A range of issues, with infrastructural constraints being the biggest hurdle of all and other gaps such as lack of awareness in food processing, not knowing whom to approach for proper machinery, issues with the marketability, and different govt. initiatives not making deeper inroads have all kept food processing in the district

(and the state as a whole) at a very minimal level. Should these gaps be addressed, there is a huge inherent potential that can be leveraged for a remarkable shift in food processing. PMFME appears to be the "Most Fit" scheme in that direction. Our proposals of how the scheme can be implemented are given below.

Before getting into who could be potential beneficiaries of micro food processing, let's understand who processing pineapples are currently.

Surprisingly, for such a large production, there are no existing enterprises that can be classified under the heading "doing good pine apple processing" or even into the category of "processing different products with Pineapple as the mainstay". There is a strong FPC aggregating Pineapple and selling, but not into processing.

And therefore we are resorting to a slightly different classification of "who could be potential beneficiaries", from PMFME.

1. Enterprises with a proper setup, registered, and are currently processing different other products, including pineapple, and are highly willing to receive scheme benefits and scale up pine apple processing. They are aware of the potential for pineapple-based products but are not able to fulfill it due to certain gaps, which they have clearly expressed in our interviews. They know what kind of machinery is required. The major gap in capital requirement can be fulfilled through the scheme, and the purpose for which capital is required is detailed below. In terms of scheme language, they can be considered under "Enterprises which are into other food processing, but are willing to get into ODOP". The existing FPC in pineapple, which is highly interested to get into processing, is also considered here. We hope that the scheme will accommodate such enterprises and the proposed processing by FPC.

2. The other categories of potential beneficiaries are SHGs. They are small, cottage industries, producing pine apple products manually and selling in local markets, not to shops, but in villages and for functions. They are highly unorganized, get into processing during the season, producing mostly juices and packing in old PET bottles, and in that sense are primitive in their current setup. From the scheme, there is good potential to uplift them.

3. Considering that processing is very limited in Dimapur, despite a large production base, common infrastructure has the potential to play a big role, which when utilized, can encourage and significantly bring in SHGs, Large farmers, and "many other individual enterprises" into the basket of pineapple processing. But this has to go hand-in-hand with "Branding and Marketing" and "Training" efforts, for effective utilization of the infrastructure/facilities created.

As part of our primary survey,

Proposed fund allocation

Table 58: Proposed fund allocation for upgrading the existing and new enterprises in the district

Intervention	Target	Amount (Cr.)
Capital investment in plant and machinery (Individual units)	To upgrade and scale up the production process for 123 Micro Units (The average fund required per unit is 12.61 lakh)	15.5
Capital investment in plant and machinery (Group units)	To upgrade and scale up the production process for 12 Groups (The average fund required per unit is 12.61 lakh)	1.55
Incubation center	One incubation center (IC) is proposed for the district.	2.75
Common infrastructure	One common infrastructure facility (CIF) is proposed for the district	4
Branding and Marketing	Common Branding and Marketing for both Individual units and Groups	1.4
Training and Mentorship	Training and Mentoring for Entrepreneurship. Training on New Technology for a total of 122 individuals. (2 people to be trained from each enterprise/group)	0.14
Total		**25.34**

Government assistance for the proposed fund for upgrading enterprises in the district

Table 59: Government assistance for the proposed fund for upgrading enterprises in the district

Intervention	Target No. of units	Project cost per unit (Lakhs)	Subsidy	Total Cost (Lakhs)	Subsidy (Lakhs)
Capital Investment in Plant & Machinery (Individual units)	123	12.61	35%	1551.03	542.86
Capital Investment in Plant & Machinery (FPO/SHG/ Cooperatives)	12	12.61	35%	151.32	52.96
Common Infrastructure	1	400	35%	400	140

Incubation Cum Custom Hiring Centre	1	275	100%	275	275
Branding & Marketing (Total no. of Units/group)	135	1.03	50%	140	70
Training & Mentorship	135	0.14	100%	0.14	0.14
Total				**2517.4**	**1080.84**

Individual existing enterprises – During the primary survey respondents (existing individuals and potential units) expressed that they are interested in the making of processed pineapple products.

Respondents of individual units expressed that they need funds for the purchase of new machinery such as slice, grinding machines, sealing, and packing machines.

Individual new enterprises– During the primary survey, we contacted new/potential entrepreneurs (large farmers) regarding their interest in pineapple processing and we got to know that they are willing to enter into processing. The majority of the new enterprises are interested in processing pineapple juice and jam making as the demand for these products is high in the district.

Groups – There are no FPOs/ cooperatives for ODOP processing in the district, but few SHGs are active in pineapple juice and jam making. The fund requirement for an SHG is for the purchase of new machinery, skill development, branding, and marketing. It was emerging from the primary survey that SHGs are willing to expand and they need funds. PMFME scheme can fill this gap.

Common infrastructure – 2 key requirements came up from the Gap Analysis, and also as we have seen from the requirements of Individual Enterprises, i.e. Cold storage, and Driers. Supporting machinery will be required in terms of washing, slicing (before drying), and packing machinery (after drying). We are proposing an integrated common infrastructure that allows end-to-end processing, after which the user will collect and sell with his/her efforts. (or as facilitated in Marketing and Branding).

Training and skill development- Through the primary survey, we observed that majority of pineapple producers are involved in post-processing activities. If training on new technologies and modern ways of processing which is machine-oriented, training and skill development on machinery and equipment, branding, and marketing is given then may show interest to enter into processing activities and this can be done through the PMPME scheme.

7.3 Strategy for Integrated Development

Integration of stakeholders such as agriculture, horticulture, marketing, financial institution, industries, associations, testing agencies, traders, farmers, and processors are necessary to start the cluster.

Table 60: Strategy for integrated development

Particulars	Requirement	Supporting Department/Agencies

Marketing	• Training and Skill Development • Packaging, Labeling, and Branding • Qualitative and Quantitative Testing	• DIC and Financial institutions should support Packing, labeling, and branding. • FSSAI should involve in the certification and licensing of the product.
Infrastructure	• Common infrastructure such as grading, sorting, and cold storage is required, as a common processing center.	• Support from DIC, the state agriculture department, and financial institutions is required for the establishment of the required infrastructure.

7.4 Proposed Interventions

We have proposed a total fund of 25.3 cr. for the up-gradation of existing and new enterprises and the setting of a common facility center and incubation center in the district. We have proposed a budget of 1.4 cr. for the branding and marketing support for the group and individual units in the district.

Table 61: Proposed interventions

S. No	Particulars	Recommendations	Cost (Cr.)
1	Infrastructure	Proposed one incubation center in the district with 3-4 processing lines and hand-holding support for the existing and new enterprises in the district.	2.75
2	Technology	Proposed up-gradation of the 135 enterprises in the district (Group and Individual units)	15.5
3	Common facilities	Proposed one common facility center and one incubation center in the Dimapur district to increase the quantity of crop processing in the district and to reduce the crop loss post harvesting.	4.00
4	Marketing support	Proposed training on marketing and branding of the processed products in the district.	1.4

8. Key Impacts

Table 62: Key Impacts

Particulars	Impact
Opportunity to increase processing activity	• Through support under the PMFME scheme, there is a possibility of increase 10 % to 15 % percentage of processing in the next three years
Employment	• Each unit will employ 4-5 members on average i.e. approximately 550-650 employments will be created in the next three years with the help of the PMFME scheme.
Income	• Through proper branding and marketing, the net profit of units will increase by 40-50 %
Reduce waste	• Through processing and common infrastructure, farm-level waste might reduce to 5 % from current 10 %

Table 62: Key Impacts	
Particulars	**Impact**
Better Profits	• Micro Units can expect a 25 % increase in profits with Better market linkages and Branding
Better Price Realization	• The export window will be opened to micro and small entrepreneurs. Better price realization can be observed by micro and small entrepreneurs' by exporting turmeric powder to major importing countries in the world.

Annexure:

Table 63: List of FPOs in the district

S. No	Name of the FPO	Location	Contact details	Total No of Registered members	Produces/ Products manufactured
1	Dimapur District Cooperative Milk Producers Union Ltd. (DIMUL)	Dimapur, Nagaland	CEO 9612908483	25	Dairy/dairy products
2	Roots Agri. Producer and Marketing C.S Ltd.	Indesen Village. Dimapur, Nagaland	Sentinaro Alley. 9862126964	30	Spices, tea, sauces, pickling
3	Greenshelves Agri Produce and Marketing C. S. Ltd	Kevijau Colony, Dimapur	C. Bumo Chang. 9612223331	25	Agri. Products
4	Dwellers MPCS Ltd.	Kushiabill Village, Dimapur, Nagaland	Mar. 8974055990	25	Meat processing
5	Bade Area Agri Allied Farming C.S. Ltd.	Bade Basa Area, Dimapur, Nagaland	Chozukhuru	30	Agri. products

Total number of cooperative societies as on 30.01.21

Table 64: List of cooperatives in the district																
S. No	Type of Society	Kma	Dmp	Mkg	Tsg	Wka	Zbto	Phk	Mon	Peren	Kpre	Lglg	Mba	Pftr	Stk	Total
A	**STATE LEVEL SOCIETIES**															
1	Nagaland State Cooperative Bank Ltd.		1													1
2	MARCOFED Ltd.		1													1
3	Nagaland State Coop. Union		1													1
4	Nagaland Apex Weavers Federation		1													1
5	Nagaland State Piggery Federation		1													1
6	Nagaland State Dairy Federation	1														1
7	The Nagaland State Entrepreneurs Associates Thrift and Credit Coop. Federation Ltd.	1														1
		2	**5**													7
B	**DISTRICT LEVEL SOCIETIES**															
1	Kohima Dist. Milk Union	1														1
2	Dimapur Dist. Milk Union		1													1
3	Mokokchung Dist. Milk Union			1												1
		1	**1**	**1**												3
C	**PRIMARY COOPERATIVE SOCIETIES (DISTRICT WISE)**															
1	Lamps C.S. Ltd.	-	1	-	-	-	-	-	-	-	-	-	-			1
2	Consumer C.S. Ltd.	68	24	24	31	9	25	21	12	6	11	2	7	1	-	241
	1. Petrol Pump C.S. Ltd.	-	-	1	-	-	-	-	-	-	-	-	1	-	-	2
3	Service C.S. Ltd.	-	37	16	-	9	4	2	1	6	-	-	4			79
	Institution C.S. Ltd.	-	1	-	-	-	1	-	-	-	-	-	-			2
	Transport C.S. Ltd.	-	2	1	2	-	-	-	-	-	-	-	-			5

Table 64: List of cooperatives in the district

S. No	Type of Society	Kma	Dmp	Mkg	Tsg	Wka	Zbto	Phk	Mon	Peren	Kpre	Lgl g	Mba	Pftr	Stk	Total
	Canteen C.S. Ltd.	-	-	1	-	-	-	-	-	-	-	-	-			1
	Education and Training C.S. Ltd.	1	-	-	-	-	-	-	-	-	-	-	-			1
	Dry Cleaners	1	-	-	-	-	-	-	-	-	-	-	-			1
4	Multi-Purpose C.S. Ltd.	854	974	320	249	426	287	231	97	104	160	35	118			3855
5	Marketing C.S. Ltd.	10	28	19	28	5	9	13	3	2	5	1	1			124
	Trading	-	-	1	-	-	-	-	-	-	-	-	-			1
6	Weaving and Handloom/Knitting /Handicraft /Industrial C.S. Ltd.	127	155	37	49	43	76	34	40	22	26	12	7	-		628
7	Dairy C.S. Ltd.	37	58	13	25	6	20	30	17	7	9	1	2		1	226

List of SHGs in Dimapur district

Table 65: List of SHGs in Dimapur district

S.No	Name Of The SHG	Location	Contact Details	Produces/ Products Manufactures	Marketing Details Of Produce/Product	Scale Of Production (In MT)
1	Seyie	Tenyiphe I (Chumu)	9862950134	Noodles	Wholesaler, Restaurants In Dimapur, Kohima, Mon	48 Mt
2	Seyieneinuo Sachu(Kenei B)	Tenyiphe I (Chumu)	9862126011	Beef, Buffalo, Pork, Mango	Bakeries Around Dimapur, Kohima, And Imphal **(FSSAI Registered)**	0.06 Mt Meat, 0.08 Mt Mango,
3	Orchid	Darogapathar (Chumu)	7421068827	Pickle-Bamboo Shoot, Chilly, Meat (Beef, Pork), Lime, Radish	Naga Mart, Expo Centre Kohima, Exhibition, Convenience Stores **(FSSAI Registered**)	0.2 Mt Bamboo Shoot, 0.15 Mt Chilly, 0.1mtmeat, 0.15 Mt Radish, 0.25 Mt Lime
4	Lita	Sovima (Chumu)	9856290198	Bamboo Shoot, King Chilly	Bakeries Around Dimapur, Kohima **(FSSAI Registered)**	0.2 Mt Bamboo Shoot, 0.12 Mt King Chilly
5	Medemren SHG	Aoyimkum Village (Chumu)	9856468449/	Pickles And Snacks	**FSSAI Registered**	0.2 Mt Pickle, 0.3mt Snacks
6	Lokivi SHG	Purana Bazar (Chumu)	70056162725/ 9856303751	Cakes, Cookies, Buns, Axone, and Beef Chutney	Marketing Through SHG Members And Supply To Provisional Stores. **FSSAI Registered.**	0.1 Mt Beef Chutney, 0.1mt Axone, 0.1 Mt Cake, 0.15 Cookies, 0.05 Mt Buns
7	Nzanta SHG	Ekhyoyan (Chumu)	8837207645	Biscuits, Namkeen, Pickles, Cake	Provisional Store	0.01 Mt Biscuits, 0.01 Namkeen, 0.01 Mt Cake, 0.02 Mt Pickle
8	Kudayo	Zani (Chumu)	9862534261	Biscuit, Meat, and Veg. Pickles	SHG Members	0.05 Mt Biscuit, 0.1 Mt Meat Pickle, 0.1 Mt Veg Pickle
9	Faith SHG	Purana	93667717	Biscuits, Namkeen	Street Vendor	6 Mt

Table 65: List of SHGs in Dimapur district						
S.No	Name Of The SHG	Location	Contact Details	Produces/ Products Manufactures	Marketing Details Of Produce/Product	Scale Of Production (In MT)
		Bazar (Chumu)	55			
10	Jurulai SHG	Bamunpukhuri (Chumu)	7005636600	Pickle, Rice Cookies	SHG Members	0.03 Mt Pickle, 0.02 Mt Rice Cookies
11	Hemsmai SHG	Bamunpukhuri (Chumu)	7005202521	Pickles, Rice Cookies, Chips	SHG Members	0.03 Mt Meat Pickle, 0.02 Mt Veg Pickle, 0.01 Mt Chips
12	Rangdisa SHG	Bamunpukhuri (Chumu)	8416057313	Pickle, Rice Cookies	SHG Members	0.03 Mt Pickle, 0.02 Mt Rice Cookies
13	Murongsangben	Bamunpukhuri (Chumu)	7629018495/ 9612138481	Pickles	Bakeries (**FSSAI Registered**).	0.8 Mt Pickle
14	Vekru	Selouphe (Chumu)	7642931481	Pickle, Lemon Juice	SHG Members	0.2mt Juice, 0.03 Mt Pickle
15	Kekhrie	Selouphe (Chumu)	9612783736	Pickle	SHG Members	0.3 Mt Pickle
16	Chohoi	Phaipijang (Chumu)	8837080573	Meat And Veg. Pickle	SHG Members And Nearby Villages	0.15 Mt Meat Pickle, 0.15 Mt Veg Pickle
17	Ngambom	Phaipijang (Chumu)	9856036121	Meat And Veg. Pickle	SHG Members	0.09 Mt Meat Pickle, 0.06 Mt Veg Pickle
18	Thalm	Chumukedi	81310634	Meat And Veg. Pickle,	SHG Members	0.25 Mt Pickle, 0.05 Mt Donuts

Table 65: List of SHGs in Dimapur district

S.No	Name Of The SHG	Location	Contact Details	Produces/ Products Manufactures	Marketing Details Of Produce/Product	Scale Of Production (In MT)
	SHG	ma Village (Chumu)	28	Donut		
19	Mercy SHG	Chumukedima Village (Chumu)	9856967621	Meat And Veg. Pickle	SHG Members	0.025 Mt Meat Pickle, 0.025 Mt Veg Pickle
20	Naomi SHG	Chumukedima Village (Chumu)	9862226114	Meat Pickle	SHG Members	0.1 Mt Meat Pickles
21	Anitet SHG	Padumpukhuri (Chumu)	9856385135	Meat And Veg. Pickles, Baked Food Products, Biscuits	SHG Members, **FSSAI Registered**	0.1mt Meat Pickle, 0.1 Veg Pickle, 0.2 Mt Baked Products, 0.1 Mt Biscuits
22	Benka Okho	Padumpukhuri (Chumu)	8415904251	Meat And Veg. Pickles, Baked Food Products, Biscuits	SHG Members, **FSSAI Registered**	0.1mt Meat Pickle, 0.1 Veg Pickle, 0.2 Mt Baked Products, 0.1 Mt Biscuits
23	Grace SHG	Chumukedima Village (Chumu)	8974377969	Vegetable Pickles	SHG Members	0.3 Mt Veg Pickle
24	Tiasangla Yaden (Chensungna)	Chumu A	8787840460	Chicken, Pork, King Chilly	Bakeries, Cafe. **(FSSAI Registered)**	0.24 Mt Chicken, 0.24mt Pork, 0.1 Mt King Chilly
25	Chensungna	Chumu A	9612347286	Prawn, Bitter Gourd, Green Chilly	Within Village	0.03 Mt Prawn, 0.06 Mt Bitter Gourd, 0.08 Mt Green Chilly
26	Titipen	Chumu A	94362111	Dried Fish, Vegetables,	Within Village	0.2 Mt Dried Fish, 0.2 Mt

Table 65: List of SHGs in Dimapur district						
S.No	Name Of The SHG	Location	Contact Details	Produces/ Products Manufactures	Marketing Details Of Produce/Product	Scale Of Production (In MT)
			53	Chicken, Bitter Gourd, King Chilly		Vegetable, 0.1 Mt Chicken, 0.08 Mt Bitter Gourd, 0.1 Mt King Chilly
27	Orchid	Chumu A	9612490563	Bitter Gourd, Pork, Beef, Green Chilly	Within Village **(FSSAI Registered)**	0.1 Mt Bitter Gourd, 0.15 Mt Pork, 0.1 Mt Beef, 0.1 Mt Green Chilly
28	Morumi	Seitheke Basa	9856974015	Dry Fish	Within The Village	0.15
29	Vikehielie	Seitheke Basa	9383235412	Meat Pickle	Shops Within The Village	0.02
30	Totimi-Kivipu	Vihokhu	7629900812	Meat Pickles	Within The Village	1
31	Liqo-U SHG	Vihokhu	9729900698	Soybean Pickles	Within The Village	2
32	Chining	Old Showuba	9612963347	Pickle- Meat, Chilly, Bamboo Shoot, Ginger. Juice- Mango And Lemon	Inside The Village	1
33	Daisy SHG	Khehokhu	9402003181	Bitter-Bean Pickle	Outside The Village	0.2
34	Niboqha SHG	Kiyezhe	9436404601	Bittter Bean, Raddish Pickle	Outside The Village	0.6
35	Tsukoli SHG	Henivi	8131065064	Axone, Meat Pickles	Within The Village	0.4
36	Laheshe SHG	Henivi	8974523384	Axone, Meat Pickles	Within The Village	0.6
37	Achiku	Pukhato	88370192	Pickle- Bitter Bean, Chilly,	Outside The Village	0.3

Table 65: List of SHGs in Dimapur district						
S.No	Name Of The SHG	Location	Contact Details	Produces/ Products Manufactures	Marketing Details Of Produce/Product	Scale Of Production (In MT)
	SHG		34	Raddish, Mango		
38	Pekutsu SHG	Pukhato	6009957780	Pickle- Bitter Bean, Chilly, Radish, Mango	Outside The Village	0.6
39	Achita SHG	Ghokito	9402728355	Axone And Sticky Rice Biscuit	Within The Village	0.7
40	Tokulu SHG	Ghonivi	9972024515	Axone And Sticky Rice Biscuit	Within The Village	0.4
41	Akumto SHG	Ghonivi	6909241662	Cookies And Cake	Within The Village	0.8
42	Kuqakulu SHG	Suhoi	6009143885	Axone And Sticky Rice Biscuit	Within The Village	0.7
43	Mulachu SHG	Suhoi	6009955683	Axone And Sticky Rice Biscuit	Within The Village	0.8
44	Steppingstone	Vihokhu	8974561339	Soybean Pickles	Within The Village	2
45	Kimiye	Vihokhu	9366778199	Meat Pickles	Within The Village	1
46	Li	Vihokhu	8732041404	Cookies And Sticky Rice Biscuits	Within The Village	0.8
47	Vision	Vihokhu	8575425916	Meat Pickles	Within The Village	1
48	Toluni SHG	Hovishe	8837469584	Stinky Bean Pickle, Chilly Pickle	Town	Stinky Bean Pickle- 0.2 Tonnes, Chilli Pickle-0.02 Tonnes
49	Alokivi	Hovishe	60093583	Meat Pickle	Town	Meat Pickle-0.05 Tonnes

Table 65: List of SHGs in Dimapur district

S.No	Name Of The SHG	Location	Contact Details	Produces/ Products Manufactures	Marketing Details Of Produce/Product	Scale Of Production (In MT)
	SHG		61			
50	Xaqheni SHG	Hovishe	8787572112	Bamboo Shoot Pickle	Village	Bamboo Shoot Pickle-0.2 Tonnes
	Kukhakulu SHG	Hovishe	9366276903	Chilli Pickle	Village	Chilli Pickle-0.02 Tonnes
51	Tokulu SHG	Hovishe	9366486834	Stinky Bean Pickle	Town	Stinky Bean Pickle-0.1 Tonnes
52	Muani SHG	Hovishe	7005942199	Lemon Juice	Village	Lemon Juice- 0.06tonnes
	Unity SHG	Hovishe	8787447582	Popcorn Making	Village	Popcorn- 0.05 Tonnes
53	Easter SHG	Hovishe	9366165631	Stinky Bean Pickle	Village	Stinky Bean Pickle- 0.2 Tonnes
54	Peace SHG	Hovishe	9366996913	Mango Juice	Village	Mango Juice- 0.15 Tonnes
55	Pukheni SHG	Hovishe	8014208754	Lemon Juice	Village	Lemon Juice- 0.08 Tonnes
56	Bethel SHG	Viyito	7421066809	Stinky Bean Pickle	Village	Stinky Bean-0.15 Tonne
57	Tsukoli	Viyito	9366140677	Sticky Rice Roti	Town	Sticky Rice- 0.04 Tonnes
58	Lokivi	Viyito	9774380713	Soybean Pickle	Town	Soybean Pickle- 0.015
59	Niloji	Viyito	93669160	Soybean Pickle	Village	Soybean Pickle- 0.01

Table 65: List of SHGs in Dimapur district

S.No	Name Of The SHG	Location	Contact Details	Produces/ Products Manufactures	Marketing Details Of Produce/Product	Scale Of Production (In MT)
			95			
60	Abigail	Viyito	9774377959	Sticky Rice Roti	Village	Sticky Rice- 0.015
61	Xalu	Hovukhu	6009739229	Meat Pickle	Village	Meat Pickle- 0.1, Sticky Rice- 0.05
62	Thu-Ni	Hovukhu	8837399918	Meat And Chilli Pickle	Village	Lemon Juice-0.01, Stinky Bean Pickle- 0.5, Meat Pickle- 0.1
63	Toni	Hovukhu	7005584967	Soybean Tea/Soup	Village	Maize Soup- 0.1, Soyabean Tea- 0.05
64	Alo SHG	Hovukhu	6009847285	Meat Pickle	Village	Meat Pickle- 0.5
65	Tunakivi	Hovukhu	7005826747	Meat Pickle	Village	Meat Pickle- 0.04
66	Ikowo	Hovukhu	7085962226	Sticky Rice Roti	Village	Sticky Rice- 0.02
67	Jemima	Kuhoxu	9863115605	Stinky Bean Pickle	Town	Pickle 0.25
68	Orchid	Kuhoxu	8787431973	Jackfruit Chips	Village	Pickle 0.05
69	Hope	Kuhoxu	8787789617	Banana Chips	Village	Pickle 0.03
70	Root	Kuhoxu	8787729606	Pineapple Juice	Village	Pickle 0.02
71	Mary	Kuhoxu	70054628	Stinky Bean Pickle	Town	Pickle 0.1

Table 65: List of SHGs in Dimapur district

S.No	Name Of The SHG	Location	Contact Details	Produces/ Products Manufactures	Marketing Details Of Produce/Product	Scale Of Production (In MT)
			82			
72	Hannah	Kuhoxu	9366114821	King Chilli Pickle	Town	Pickle 0.05
73	Kimiyekini	Ghotovi	8837380450	Meat Pickle	Village	Pickle 0.05
74	Juvi	Ghotovi	8787704382	Pineapple Juice	Village	Pineapple Juice 0.6
75	Niqomi	Ghotovi	9862072746	Stinky Bean And Soyabean Pickle	Village	Pickle 0.5
76	Akivi	Zuheshe	9774381261	Yongchak (Tree Bean) Pickle And Other Pickles.	Sold In Town	Pickle- 0.07 Banana-1
77	Alokivi	Zuheshe	8794769469	Banana Chips And Axone	Sold In Village	Banana Chips-0.01 Yam-0.75 Axone-100nos
78	Nipavi	Hevikhe	8256996193	Meat Pickle, Soybean	Sold In Village	Meat Pickle-0.05
79	Akivi	Hevikhe	8787833918	Lime Juice, Banana	Sold In Block Market	Lime Fruit Juice-300litres
80	Kuphukivi	Kiyezu B	8575466008	Meat And Yongchak Pickle, Soybean	Sold At Village And Block Level	Meat Pickle-0.013, Yongchak Pickle-0.2, Soybean-0.3
81	Aiko	Kiyezu B	7005847928	Meat Pickle, Chilli Pickle, Soybean, Banana	Sold At Village And Block Level	Meat Pickle-0.012, Chilli Pickle-0.03, Soybean-0.1, Banana-0.8
82	Lidya	Kiyezu B	8787381235	Meat Pickle, Soybean Pickle	Sold At Village And Block Level	Meat Pickle-0.013, Soybean Pickle-0.07
83	Mulakini	Kiyezu B	94028176	Meat Pickle, Banana	Sold At Village And Block Level	Meat Pickle-0.016, Banana-0.5

Table 65: List of SHGs in Dimapur district

S.No	Name Of The SHG	Location	Contact Details	Produces/ Products Manufactures	Marketing Details Of Produce/Product	Scale Of Production (In MT)
			52			
84	Kulashi	Kiyezu B	8794786509	Meat Pickle, Soybean	Sold At Village And Block Level	Meat Pickle-0.106, Soybean-0.1
85	Akivi	Kiyezu B	7005850711	Meat Pickle, Soybean	Sold At Village And Block Level	Meat Pickle-0.012, Soybean-0.02
86	Kusajea	Kiyezu B	9531373687	Meat Pickle And Sticky Rice Roti	Sold At Village And Block Level	Meat Pickle-0.013 And Sticky Rice Roti-0.02
87	Lokivi	Kiyezu B	8257901043	Meat Pickle	Sold At Village And Block Level	Meat Pickle-0.016, Soybean-0.05
88	Kikimiye	Kiyezu B	7628958374	Meat Pickle	Sold At Village And Block Level	Meat Pickle-0.016, Soybean-0.02
89	Thulun	New Showuba	9612162970	Beef Pickle, Lemon Juice, Banana	Sold Within Village	Beef Pickle-0.02, Lemon Juice-150 Litres

List of the ODOP processing units in the district

Table 66: List of the ODOP processing units in the district					
S. No	Name of the Unit	Contact person	Designation	Village & Mandal	Mobile No.
1	Cedar VLO Bunsang		Secretary	Bunsang village, Medziphema, Dimapur	600955891
2	Fruit tales	Mikato shohe	Owner	Chumukedima town, dimapur	8948325642
3	Farmers square	Zakietsono Jamir	Proprietor	Medziphema Dimapur Nagaland 797112	7005518714
4	Minishe SHG (NSRLM)	vinitoli	President	The new colony,purana bazaar Dimapur Nagaland	8119049554
5	Choihoi SHG	Lamneihoi	Secretary	Bungsang village, dimapur	8731982080
6	Lenchonghoi SHG	Nemnei	President	Bungsang village medziphema Dimapur Nagaland	9862707312
7	CRT SHG	Dimlhai	Member	Bungsang village medziphema Dimapur Nagaland 797112	8837444728
8	Private	Helen	Owner	Pherima village, Dimapur	9615878602
9	Alato Baptist Church	Yekato	Deacon, church member	Pherima village	9366608025
10	Mute SHG	Mongaeithing	Member	Bungsang village medziphema Dimapur Nagaland 797112	8414845813
11	Midland SHG	Hatnu	President	Bungsang village medziphema Dimapur Nagaland 797112	7005940795
12	Light SGH	Kenei	President	Chumukedima A village	9862575154
13	Thoiting SHG	Tingneiphal	President	Molvom village p.o Medziphema Nagaland	8730910224
14	Bombiel SHG	Nengkim	President	Molvom village medziphema Nagaland	8729931824
15	Pahhoi SHG	Kimchin	President	Molvom village medziphema Nagaland	9612462436
16	Emhoi SHG	Lamnekhin	President	Molvom village medziphema Nagaland	9366172980
17	Golngai SHG	Kimneihoi	President	Molvom village medziphema Nagaland	9612068675
18	Valpah SHG	Veilhing singson	Member	Molvom Village	7085121636
19	Choihoi SHG	Kimting vankal	President	Molvom village	8413088281
20	Galngam	Hatkhothem	President	Molvom village P.O Medziphema Nagaland	9862096051

Table 66: List of the ODOP processing units in the district					
S. No	Name of the Unit	Contact person	Designation	Village & Mandal	Mobile No.
21	Lom SHG	Nengneichong	President	Molvom village medziphema Nagaland	9402461624
22	Micro food processing (private)	Thanogeulhi doungel	Owner	Bungsang village P.O Medziphema Nagaland	8787508488
23	Private ownership (Individual)	Themneichin chongloi	Owner	Bungsang village medziphema Nagaland	7629970357
24	Bubuno Ratsa	Bubuno ratsa	Farmer	Ruzhaphema village	9863241344
25	Private ownership	Lamkhosei Dimngel	Owner	Bungsang village medziphema Nagaland	9366771248
26	Private ownership	Hatdeiching	Owner	Bungsang village medziphema Nagaland	8787499178
27	Private ownership	Nengtinhoi Misao	Owner	Molvom village medziphema Nagaland	9383384220
28	Private ownership	Henminlun dimngel	Owner	Bungsang village medziphema Nagaland	8837488790
29	Private ownership	Jonna vaiphei	Owner	Medziphema Nagaland	8014837874
30	Vilhoubeituo ratsa	Vihoubeituo ratsa	Private owner	Ruzhaphema village	9366501580
31	Farming	Kholie secu	Farmer	Ruzhaphema village	9383383396
32	Private ownership	Apele secu	Farmer	Ruzhaphema village	8132030808
33	V W Home products	Vikali wotsa	Owner	H no 52 east block colony Dimapur Nagaland	9774384849
34	T. Wati (private ownership)	Temjenwati	Farmer	Ruzhaphema village	9862031776
35	Abilie secu	Abilie	Farmer	Ruzhaphema village	6909620904
36	Hetoni (private ownership)	Hetoni	Farmer	Pherima village	9615382339
37	Elite SHG	Wobeni	Secretary	Sovima village, dimapur town	8413093117
38	Rokohebi kehie	Rokohebi kehie	Farmer	Ruzhaphema village	6009116996