Aug, 2022

SLUP

(STATE LEVEL UPGRADATION PLAN)

for

MON DISTRICT
IN THE STATE OF NAGALAND

Prepared by

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Executive Summary

Paddy is the major crop cultivated in the district. 44% area is under paddy crops in the district. Jhum & WTRC are two methods used for paddy cultivation. Maize, Kholar, Soybean, and Mustard, are other important crops in the district. 85% area is under agricultural produce and 15% area is under horticulture produce in the district during 2019-20. Banana, Orange, Passion fruit, and Pineapple is major fruit crops in the district.

Large cardamom is the ODOP and the Millets based products like jowar, small millets and ragi and Nutgall-based products are the Non ODOP products of the district: 22 enterprises are surveyed in the district involved in processing large cardamom (Primary processing), pickles, and sticky rice biscuits processing enterprises are using the large cardamom as the ingredients. Among the total 22 surveyed samples, 21 units are operating at the household level and 1 unit is operating at the micro-enterprise level. 208 employees are working in the food processing enterprises. Among the total employees, 17% of the employees are male and 83% of the employees are female. 75% of the employees are working in household enterprises and 255 of the employees are working in micro-enterprises.

Cluster- about 22 food processing enterprises were studied located in the villages like Chi, Hongphoi, Sangnyu, Yuching, Phomching, Totok Chingha, Ponkong, and Lampong. 98% of the units in the district are operating at the household level.

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-None of the enterprise in the district is processing the large cardamom into powder or oil etc. It is observed that only 600 to 700 kilograms of the cardamom capsules are used as ingredients in the pickles and biscuits and the rest of the crop is exported to other districts and states. There is considerable demand for cardamom powder oil in the district and other parts of the state. It is proposed to provide the machinery like Tray heater, Pod breaker cum peeler, pulverizer, sealing machine, and batch coding machine at the subsidized price for the processing of cardamom into cardamom powder and oil.

2. Lack of common infrastructure facilities- It was observed that there are no common infrastructure facilities for the processing units in the district. Due to the lack of proper transportation facilities in the district, there is considerable post-harvesting crop loss in the district. To minimize the post-harvest loss of ODOP and Non-ODOP commodities, we are proposing the establishment of common infrastructure facilities like reefer vans, cold storage structures, pack houses, etc.

3. Incubation center- From the primary survey, it is observed that approximately 124 new entrepreneurs are interested to come into the sector but are unable to do due to a lack of proper guidance and facilities in the food processing sector in the district. We are proposing one incubation

center in the district with common processing facilities for 3 to 4 processing lines (Jowar, Ragi, Gall nut, and Small millets products) in the district.

4. Lack of marketing linkages-Mon district is the largest producer of the large cardamom in the states and is known for its size and aroma. Farmers and traders are selling the primarily processed cardamom to the local retailers and consumers without the brand. To overcome the problem and to support the enterprises there is a need of creating strong market linkages in India. A strong band can be created for the cardamom grown in the Mon district which is famous for its size and aroma. A fund of 13 lakhs is proposed in the budget to create the brand and marketing linkage for the products in the district.

Proposed fund allocation:

Total INR 24.8 Cr. fund is proposed in the Mon district for the up-gradation of 125 existing and new units in the district. Among the total fund, INR 15.1 Cr. fund is proposed to upgrade the 114 individual units, and 1.5 Cr. fund is proposed to upgrade the 11 groups in the district. It is proposed to establish one incubation center and one common infrastructure in the district. INR 1.3 Cr. and 0.13 Cr. fund is proposed for the branding and marketing and training and mentorship respectively.

Proposed fund allocation for Mon District		
Intervention	**Target**	**Amount (Cr.)**
Capital investment in plant and machinery (Individual units)	To upgrade and scale up in the production process for 114 Micro Units (The average fund required per unit is 13.25 lakh)	15.1
Capital investment in plant and machinery (Group units)	To upgrade and scale up the production process for 11 Groups (The average fund required per unit is 13.6 lakh)	1.5
Incubation center	One incubation center (IC) is proposed for the district. Cost per IC 2.75 Cr.	2.75
Common infrastructure	One common infrastructure facility (CIF) is proposed for the district. Cost for the CIF 4.0 Cr.	4
Branding and Marketing	Common Branding and Marketing for both Individual units and Groups	1.3
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)	0.13

Proposed government assistance under the SLUP:

Total INR 24.8 Cr. fund is proposed in the Mon district for the up-gradation of 125 existing and new units in the district. INR 10.74 Cr. is expected government assistance under the SLUP from the total fund proposed for the up-gradation of the existing and new units in the districts.

Proposed subsidy under SLUP Initiative for Mon District					
Intervention	Target No. of units	Project cost per unit (Lakhs)	Total Cost (Lakhs)	Subsidy per unit	Govt. assistance (Lakhs)
Capital Investment in Plant & Machinery (Individual units)	114	13.25	1510.5	35%	528.675
Capital Investment in Plant &Machinery (FPO/SHG/ Cooperatives)	11	13.6	149.6	35%	52.36
Common Infrastructure	1	400	400	35%	140
Incubation Cum Custom Hiring Centre	1	275	275	100%	275
Branding & Marketing (Total no. of Units/group)	125	1.04	130	50%	65
Training & Mentorship (No. of the individual)	125	0.104	13	100%	13
Total			**2478.1**		**1074.04**

By 2025, with the support of the PMFME scheme, the processing percentage of respective commodities may go up. Nearly, 450 to 650 new employments will be generated, the income level of micro and small entrepreneurs may increase by 10% to 20% (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 Mon district of Nagaland state of India.

Sampling Technique and Sample Size adopted

Sampling Technique - Multistage random sampling technique was adopted.

Sample Size

22 enterprises are surveyed in the Mon district to prepare the report by collecting the necessary information.

Nature and sources of data

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

Primary Data

India is the largest producer of large cardamom with a 54% share in world production, and Sikkim contributes up to 88% of India's production. The survey was conducted in various large cardamom processing units located in the Mon 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, 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 Large Cardamom.

Analytical tools and techniques used

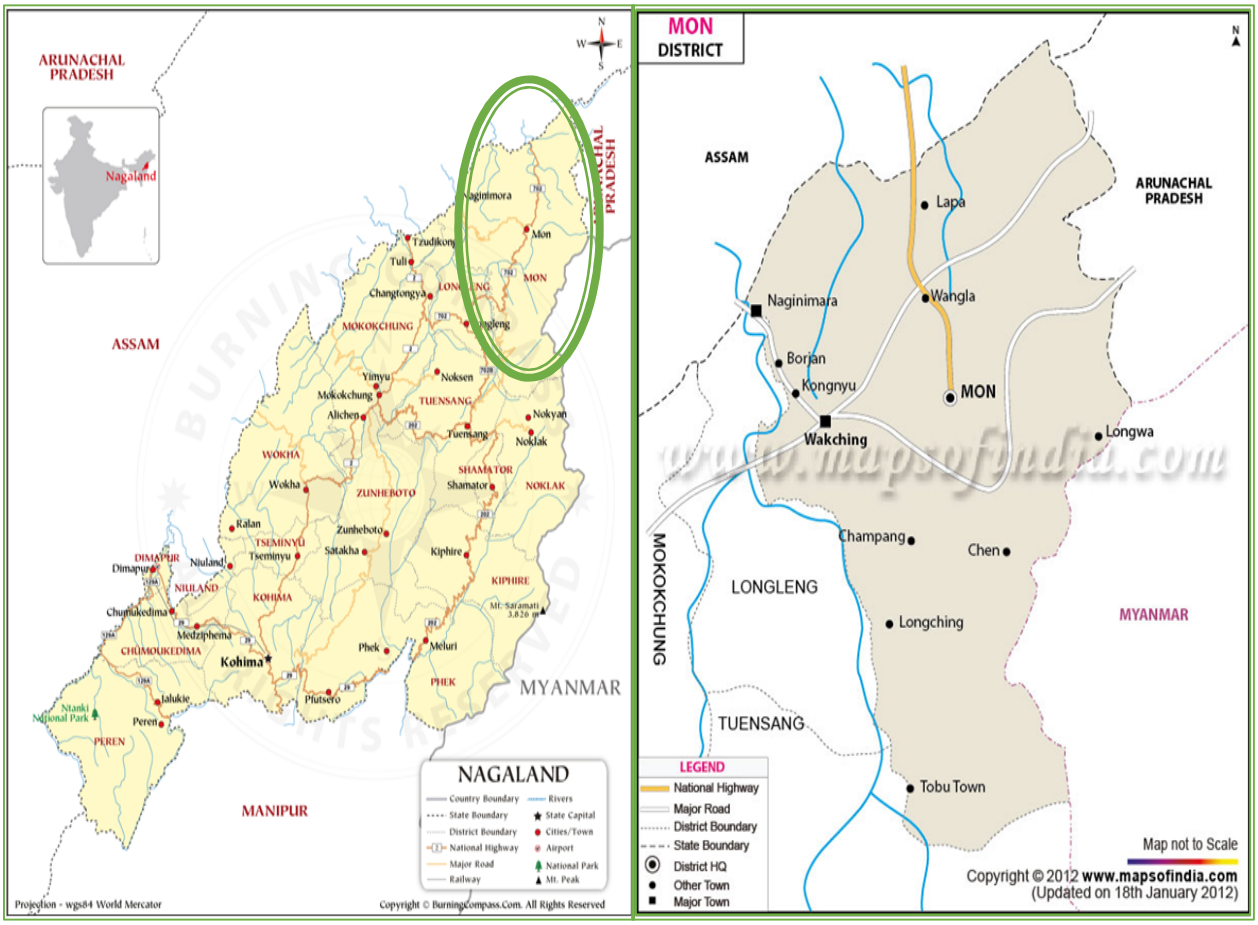
Tabulation of Collected Data, Percentage Analysis, and Graphical Solutions was used to get a comprehensive picture and analysis of the Data. After the data has been collected, it has been interpreted and presented to arrive at conclusions.

I. Baseline Assessment studies:

Mon district is the home of the Konyak Naga and is bordered by Arunachal Pradesh in the north, Myanmar in the east, Tuensang in the south, and Longleng in the west. The topography of the Mon district is mostly undulating with steep slopes having an altitude ranging from 180m MSL – 1625m MSL, interspersed with fertile valleys suitable for agricultural activities to achieve high productivity in food grain and other agricultural cash crops.

Mon District is situated on the North-eastern tip of the State of Nagaland having an area of 1786 sq km. Coal is mined in the District. This activity has led to the degradation of vast forest cover and agricultural lands being destroyed for coal extraction in the foothills bordering Assam.

Figure 1: Nagaland State and Mon District Map



Demographics

In 2011, Mon had a population of 250,260 of which males and females were 131,753 and 118,507 respectively. In the 2001 census, Mon had a population of 260,652 of which males were 121,899 and the remaining 138,753 were females.

There was a change of 80.36 percent in the population compared to the population as of 2001. In the previous census of India 2001, Mon District recorded an increase of 74.12 percent in its population compared to 1991.

Table 1: Demographics profile of the district	
Demographic Label	**Value**
Area	1786 Sq. Km.
Actual Population	250,260
Male	131,753
Female	118,507
Density/km2	140
Proportion to Nagaland Population	12.65%
Sex Ratio (Per 1000)	899
No. of Town Council	5
No. of Census	14
No. of Villages	131

A. Agriculture Profiling of the Districts in the State

Agriculture is the main economic activity of the people of the district and paddy is the main crop. The district mostly practices two forms of cultivation, they are terrace and jhum. The terrace is a permanent field of cultivation because once it is made it continues for an indefinite period.

Rice is the staple food of the people in the district and it is grown during the summer months, maize, which is also a summer crop, is the next important cereal produced in the district. Soybean, Rapeseed, mustard, and groundnut are some of the oil-producing seeds grown in the district. Among the commercial crops, potato is grown all over the district. Major vegetables grown in the district are cabbage, cauliflower, brinjal, chilies, tomato, onion, ginger, garlic, radish tapioca, and other leafy vegetables.

In 2019-20, crops are cultivated in the area of 52.6 thousand ha with the production of 177.2 thousand tons. Pulses, cereals, and oil seeds are cultivated in 45.7 thousand ha with the production of 117.5 thousand tons and vegetable crops are cultivated in 3.3 thousand ha with the production of 32.5 thousand tons. Fruits are cultivated in the area of 2.2 thousand ha with a production of 22.10 thousand tons. Jhum paddy and WTRC paddy are the major pulses crops cultivated in the area of 15890 ha and 7300 ha with the production of 31642 tons and 20980 tons respectively. Passion fruit and Pine apple are the major fruit crops cultivated in the area of 600 ha and 500 ha with the production of 1700 tons and 5750 tons respectively. Green chili and Cabbage are the major vegetables cultivated in the area of 600 ha and 590 ha with the production of 4500 tons and 7400 tons respectively.

ODOP

i. Total Production of the Produce in the District

Area and Production of Pulses, cereals, and Oil seeds crops in the district

In 2019-20, the total area under the major crops like pulses, cereals, and oil seeds is 47.5 thousand ha with the production of 117.5 thousand tons. Major crops like Jhum paddy, WTRC paddy, maize, and Rapeseed mustard are cultivated in the area of 15890 ha, 7300 ha, 5638 ha, and 3563 ha with the production of 31642 tons, 20980 tons, 11167 tons, and 3622 tons respectively in the district.

Table 2: Area and Production of pulses, cereals, and oil seed crops in the district

Crop	Area (Ha)	% Share	Production (MT)	% Share
Jhum Paddy	15890	34.7%	31642	26.91%
WTRC Paddy	7300	16.0%	20980	17.84%
Maize	5638	12.3%	11167	9.50%
Rapeseed Mustard	3563	7.8%	3622	3.08%
Soybean	3077	6.7%	3876	3.30%
Rajma/Kholar	1287	2.8%	1654	1.41%
Tea Green	1093	2.4%	4873	4.14%
Pea	993	2.2%	1083	0.92%
Colocasia	915	2.0%	8706	7.40%
Small Millet	822	1.8%	931	0.79%
Jute	710	1.6%	1350	1.15%
Linseed	560	1.2%	450	0.38%
Sugarcane	510	1.1%	22241	18.92%
Wheat	442	1.0%	813	0.69%
Ricebean/Nagadal	371	0.8%	432	0.37%
Perilla	335	0.7%	204	0.17%
Tur/Arhar	330	0.7%	300	0.26%
Lentil	213	0.5%	180	0.15%
Beans	210	0.5%	279	0.24%
Yam	206	0.5%	1505	1.28%
Mesta	203	0.4%	225	0.19%
Jobstear	191	0.4%	191	0.16%
Cowpea	183	0.4%	270	0.23%
Sesamum	182	0.4%	111	0.09%
Gram	70	0.2%	60	0.05%
Jowar	60	0.1%	60	0.05%
Black gram	60	0.1%	50	0.04%
Groundnut	51	0.1%	52	0.04%

Table 2: Area and Production of pulses, cereals, and oil seed crops in the district				
Crop	**Area (Ha)**	**% Share**	**Production (MT)**	**% Share**
Urd/Moong	50	0.1%	50	0.04%
Horse gram	50	0.1%	50	0.04%
Ragi	40	0.1%	40	0.03%
Barley	40	0.1%	40	0.03%
sun-flower	40	0.1%	40	0.03%
Oats	30	0.1%	30	0.03%
Castor	20	0.0%	10	0.01%
Ramie	10	0.0%	10	0.01%
Total	**45745**	**100.0%**	**117577**	**100.00%**
Source: Department of Agriculture and Horticulture Nagaland				

Area and Production of fruit crops:

In 2019-20, the total area under the fruit crops in the district is 2.2 thousand ha with the production of 22.1 thousand tons. Major fruit crops in the district are passion fruit, pineapple, and mandarin crops which are cultivated in the area of 600 ha, 500 ha, and 448 ha with the production of 1700 tons, 5750 tons, and 3100 tons respectively.

Table 3: Area and Production of fruit crops				
Fruit crops	**Area (Ha)**	**% Share**	**Production (MT)**	**% Share**
Passion Fruit	600	26.2%	1700	7.7%
Pineapple	500	21.9%	5750	26.0%
Kinnow/Mandarin Orange	448	19.6%	3100	14.0%
Banana	426	18.6%	8880	40.2%
Papaya	100	4.4%	1477	6.7%
Guava	60	2.6%	500	2.3%
Litchi	52	2.3%	267.6	1.2%
Mango	40	1.7%	260	1.2%
Plum	30	1.3%	73.5	0.3%
Peach	24	1.0%	55.2	0.2%
Jackfruit	6	0.3%	42.6	0.2%
Watermelon	1.5	0.1%	0.53	0.0%
Total	**2287.5**	**100.0%**	**22106.43**	**100.0%**
Source: Department of Agriculture and Horticulture Nagaland				

Area and production of vegetable crops:

In 2019-20, the total area under the vegetable crops in the district is 3.3 thousand ha with the production of 32.5 thousand tons. Major crops like Green chili, Cabbage, and Potato are cultivated in 600 ha, 590 ha, and 501 ha with the production of 4500 tons, 7400 tons, and 5025 tons respectively.

Area and Production of vegetable crops

In 2019-20, the total area under the vegetable crops in the district is 3.34 thousand ha with the production of 32.5 thousand tons. Major vegetable crops in the district are Green chili, Cabbage, potato, and colocasia in the area of 600 ha, 590 ha, 501 ha, and 480 ha with the production of 4500 tons, 7400 tons, 5025 tons, and 4540 tons respectively.

Table 4: Area and Production of vegetable crops

Vegetable crops	Area (Ha)	% Share	Production (MT)	% Share
Green chilly	600	18.0%	4500	13.8%
Cabbage	590	17.7%	7400	22.7%
Potato	501	15.0%	5025	15.4%
Arbi/Colocasia	480	14.4%	4540	13.9%
Tomato	250	7.5%	1954	6.0%
Sweet potato	214	6.4%	1820	5.6%
Tapioca	189	5.7%	3821	11.7%
Peas (Green)	95	2.8%	551	1.7%
Cauliflower	65	1.9%	110.5	0.3%
Beans (All Including Lab-lab)	62	1.9%	434	1.3%
Kaddu/Pumpkin	60	1.8%	500	1.5%
Cucumber	58	1.7%	486	1.5%
Carrot	45	1.3%	360	1.1%
Brinjal	36	1.1%	360	1.1%
Radish	32	1.0%	233.6	0.7%
Onion	29	0.9%	275.5	0.8%
Okra/Ladies Finger	15	0.4%	67.5	0.2%
Ash Gourd/Petha	6.5	0.2%	55.25	0.2%
Bitter Gourd	5.5	0.2%	25.85	0.1%
Ridge/Sponge Gourd (Torai)	5	0.1%	4.5	0.0%
Bottle gourd	4	0.1%	37.6	0.1%
Broccoli	0.5	0.0%	0.06	0.0%
Mushroom	0.03	0.0%	1.35	0.0%
Total	**3342.53**	**100.0%**	**32562.71**	**100.0%**

Source: Department of Agriculture and Horticulture Nagaland

Area and Production of Spice crops:

In 2019-20, the total area under the spice crops in the district is 1.2 thousand ha with the production of 4.9 thousand ha. Major spice crops cultivated in the district are Large cardamom and Ginger in the area of 655 ha and 447 ha with the production of 545 tons and 4091 tons respectively.

Table 5: Area and Production of Spice crops

Spices	Area (Ha)	% Share	Production (MT)	% Share
Cardamom Large	**655**	**52.8%**	**545**	**11.0%**
Ginger	447	36.0%	4091	82.4%
Red Chilly	60	4.8%	124	2.5%
Betelvine in Lakhs Number	30	2.4%	45	0.9%
Garlic	18	1.5%	87	1.8%
Turmeric	16	1.3%	66.2	1.3%
Black Pepper	15	1.2%	4	0.1%
Total	**1241**	**100.0%**	**4962.2**	**100.0%**

Source: Department of Agriculture and Horticulture Nagaland

Area and Production of Plantation crops:

In 2019-20, the total area under the areca nut crop in the district is 12 ha with the production of 9.60 tons.

Table 6: Area and Production of Plantation crops

Crop	Area (Ha)	% Share	Production (MT)	% Share
Arecanut	12.00	100%	9.60	100%

Source: Department of Agriculture and Horticulture Nagaland

Area and Production of medical crops:

In 2019-20, the total area under the Lemon Grass in the district is 11 ha with the production of 60 tons.

Table 7: Area and Production of medicinal crops

Crop	Area (Ha)	% Share	Production (MT)	% Share
Lemon Grass	11.00	1.00	60.00	100%

Source: Department of Agriculture and Horticulture Nagaland

Area and Production of Flower crops:

In 2019-20, the total area under the flower crops in the district is 1700 Sq.M. with the production of 76000 Per stem. The major crops flower cultivated in the district 600 Sq. M., and 600 Sq. M, with the production of 36,000 per stem and 20,000 per stem respectively.

Table 8: Area and Production of flower crops				
Crops	Area (Sq M)	% Share	Production (Per Stem)	% Share
Lilium	600.00	35.3%	36000	47.4%
Rose	600	35.3%	20000	26.3%
Alstroemeria	250	14.7%	10000	13.2%
Gerbera	250.00	14.7%	10000	13.2%
Total	1700	100.0%	76000	100.0%
Source: Department of Agriculture and Horticulture Nagaland				

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

In 2019-20, the total area under the agriculture crops in the district is 52.6 thousand ha with the production of 177.2 thousand tons. Pulses, cereals, and oil seeds contribute 86.90% of the total crop area in the district with a production of 66.3%. Large Cardamom is grown in 655 ha which is 1.24% of the total crop area in the district with the production of 545 tons which is 0.31% of the total crop production.

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	45745	86.90%	117577	66.32%
Fruit crops	2287.5	4.35%	22106.43	12.47%
Vegetable crops	3342.53	6.35%	32562.71	18.37%
Cardamom crop	**655**	**1.24%**	**545**	**0.31%**
Other Spices crops	586	1.11%	4417.2	2.49%
Plantation crops	12	0.02%	9.6	0.01%
Medicinal crops	11	0.02%	60	0.03%
Total	52639.03	100.0%	177277.94	100.0%
Source: Department of Agriculture and Horticulture Nagaland				

iii. Perishable nature of the produce

The fresh capsules are fleshy with almost 85 percent moisture. Their keeping quality is poor and is highly perishable. They are cured or dried to about 10-13 percent moisture on a dry weight basis to prolong their shelf life.

Table 10: Perishable nature of the produce		
S. No	**Produce**	**Shelf life**
1	Cardamom seeds	3-4 years
2	Cardamom Powder	3-4 years
3	Cardamom oil	2 years

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

Large Cardamom Producing district in Nagaland

The total area under the large cardamom in Nagaland state is 4093.5 ha with the production of 2302 MT. Zunheboto and Mon districts contribute 17.1 and 16% % of the total area under the crop with the production of 20% and 23.7% respectively. Phek and Kohima district contributes 15.4% and 15.3% of the total area under the crop with the production of 12% and 13% respectively in the state.

Table 11: Large Cardamom Production in Nagaland State

Districts	Area (Ha)	% Share	Production (MT)	% Share
Zunheboto	702	17.1%	460	20.0%
Mon	**655**	**16.0%**	**545**	**23.7%**
Phek	630	15.4%	277	12.0%
Kohima	625	15.3%	300	13.0%
Wokha	346.5	8.5%	156	6.8%
Tuensang	280	6.8%	113	4.9%
Longleng	245	6.0%	113	4.9%
Mokokchung	225	5.5%	100	4.3%
Peren	210	5.1%	185	8.0%
Kiphire	175	4.3%	53	2.3%
Nagaland	**4093.5**	**100.0%**	**2302**	**100.0%**

Source: Department of Agriculture and Horticulture Nagaland

Major Large Cardamom producing States in India

Sikkim, Arunachal Pradesh, Nagaland, and West Bengal are the Major Large cardamom-producing states in India. The total production of the large cardamom in India in 2019-20 is 44082 ha with the production of 8530 tons. Sikkim state contributes 56% of the total crop production followed by the Arunachala Pradesh state with 18.9%. Nagaland and West Bengal contribute 12% of the total production respectively.

Table 12: Major Large Cardamom producing states in India

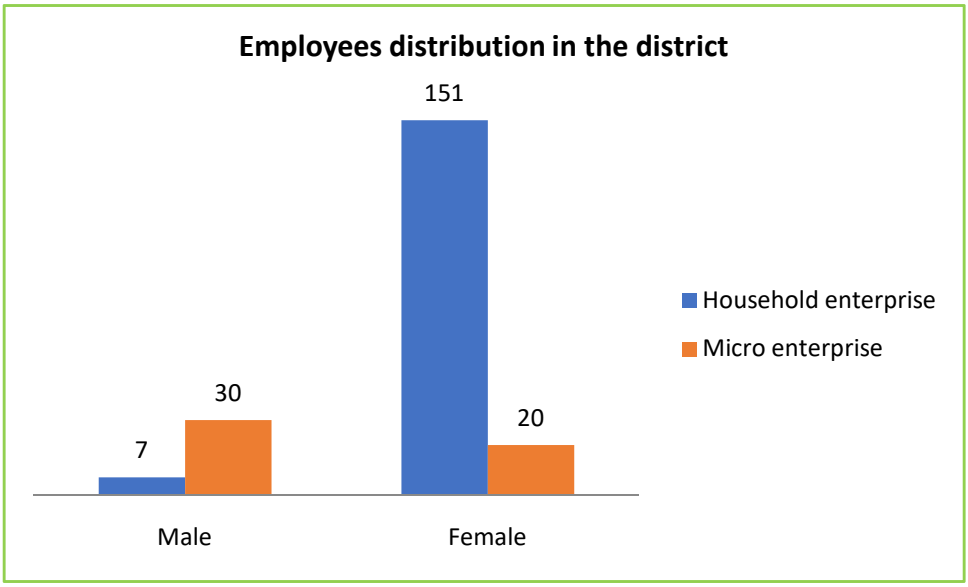
State	Area (Ha)	% Share	Production (MT)	% Share
Sikkim	23312	52.9%	4779	56.0%
Arunachal Pradesh	10909	24.7%	1614	18.9%
Nagaland	**6408**	**14.5%**	**1046**	**12.3%**
West Bengal	3305	7.5%	1086	12.7%
Manipur	148	0.3%	4.25	0.0%
Total	**44082**	**100.0%**	**8530**	**100.0%**

Source: Spice Board of India

v. Number of workers engaged in the ODOP cultivation

Approximately, 208 workers are engaged in the large cardamom processing in the district. Among the total workers, 171 workers are females and 37 workers are male. 17.5% of the employees are working in micro-enterprises and 82% of the employees are working in household enterprises.

Figure 2: Employees distribution in the district



Non-ODOP:

i. Major crops are being cultivated apart from the chosen ODOP Product.

Jhum Paddy, WTRC Paddy, Maize, Rapeseed Mustard, Soyabean, Rajma/ Kholar, Tea Green, Passion fruit, Pineapple, and Green Chilly are the major crops cultivated in the district apart from the

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

Paddy is cultivated in the district in an area of 23.19 thousand ha with the production of 526.22 thousand MT. Maize, Rapeseed mustard, and Soyabean are cultivated in 5.6, 3.5, and 3 thousand tons with the production of 11.1, 3.6, and 3.8 thousand tons respectively. Passion fruit is cultivated in 600 ha with the production of 1700 tons.

Table 13: Total production of the major agricultural products in the district

Crop	Area (Ha)	Production (MT)
Jhum Paddy	15890	31642
WTRC Paddy	7300	20980
Maize	5638	11167
Rapeseed Mustard	3563	3622
Soybean	3077	3876

Table 13: Total production of the major agricultural products in the district		
Crop	**Area (Ha)**	**Production (MT)**
Rajma/ Kholar	1287	1654
Tea Green	1093	4873
Passion fruit	600	1700
Pineapple	500	5750
Green Chily	600	4500
Source: Department of Agriculture and Horticulture Nagaland		

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

Jowar, Ragi, and Small millets are cultivated in the 60, 40, and 822 ha in the district with the production of 60 MT, 40MT, and 931 MT respectively. Millets contribute 2% of the total agricultural crop production in the district.

iv. Perishable nature of the Non-ODOP produce:

Table 14: Perishable nature of the Non-ODOP produce		
S. No	**Name of the Produce**	**Shelf life produce**
1	Flour (Jowar/ Ragi/ Small Millet)	3 Months
2	Malt	4 Months
3	Millet cookies	15 days
4	Ragi-based RTE products	15 days

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

The total area under Non-ODOP cultivation in the district is 2566 ha in 2019-20. Approximately four thousand households are engaged in Non-ODOP cultivation with a population of seventeen thousand.

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 15: 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

Table 15: Nagaland state Government policy in FPI	
Policy and Incentives	**Description**
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 (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

Table 15: Nagaland state Government policy in FPI	
Policy and Incentives	**Description**
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 16: PM Formalization of Micro Food Processing Enterprises 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 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 RahmanIlyas, Global Head and Vice President, TransGraph Consulting, Hyderabad
- Mr.DeekshitManchaiah, 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 eco system:

1. Industrial Profile of the Districts in the State

In 2019, GDP for Nagaland was 3.19 million INR, lakhs. Between 2013 and 2019, the GDP of Nagaland grew substantially from 1.66 million to 3.19 million INR, lakhs rising at an increasing annual rate that reached a maximum of 16.43% in 2018 and then decreased to 12.39% in 2019.

Predominantly an agrarian State, the economy of Nagaland is dependent on the development of agriculture. To bring agriculture to the forefront and prioritize its development, it is important and necessary to utilize all available resources sensibly with the application of modern technology to achieve the optimum level of development, to meet the goal of food security.

The main occupation of the people of this district is agriculture with nearly 90 percent of the workforce engaged in it. The economic condition of the people lags when compared to the living conditions of the people of other districts in Nagaland. As it is located in the remotest part of Nagaland, its economic development has not been satisfactory. Mon has great potential for economic development if her forest resources, human resources, water resources, etc. can be re-generated. Due to ignorance, lack of capital, scientific and technical know-how, and infrastructure inadequacies, the Mon District has failed to lift to the level of other districts. The recent trend in the District is tea cultivation by the local people. The gentle slopes of Mon provide ample scope for developing the Mon District for the cultivation with all modern techniques. Though the Government has provided funds the local people fail to channel the funds for economic growth and development. If the central agencies like the Indian Council of Agricultural Research (ICAR) can establish demonstration farms to teach the villagers about modern farming, inclination towards cash crops, and horticulture, the rearing of orchids by scientific means can offer ample opportunities to the people of the Mon District for regenerating employment opportunities and for economic development in the District.

Table 17: Industrial Scenario of Mon District

S. No.	Head	Unit	Particular
1	Registered industrial unit	No	121
2	Registered medium and large unit	No	Nil

Table 17: Industrial Scenario of Mon District			
S. No.	Head	Unit	Particular
3	Estimated average no of daily workers employed in small-scale Industries	No	284
4	Employment in large and Medium Industries	No	N/A
5	No Industrial area	No	2
6	Turnover of small-scale Industries	In lacs	2 lacs
7	Turnover of Medium &large scale Industries	In lacs	N/A
Source – Brief Industrial Profile Report by MSME, GOI			

2. Identifying Non-ODOP Products:

Jowar, Ragi, and small millets are identified as Non-ODOP of the district base on the availability of the agricultural crop and the number of units processing the produce.

Table 18: Non-ODOP products		
S. No	**Crop Name**	**Value added products**
1	Ragi	Flour, Biscuits, Malt
2	Jowar	Flour, Malt
3	Small millets	Flour, Malt
4	Gall Nut	Extract

4. District wise Industrial profiling based on secondary research

The growth trend in the district is very low since no major Industries existed and the employment scope is also very low. Roads are so to say the main means of transport and communication. However, the condition of most of these roads is deplorable which is hampering the expansion of potential economic activities in the district.

The District Industries Center needs to be strengthened extension work to achieve the growth envisaged by exploiting the estimated potential. The present position regarding the infrastructure available in terms of training centers, road networks, services centers, etc is inadequate and needs to be augmented to bring about a positive change in the climate. At present, the district has the following networks of centers/units.

1. Beekeeping unit- 1
2. Lemon grass Distillation unit- 1
3. Rural artisan project training unit- 1
4. Steel trunk 2
5. Mini Rice mills 2
6. Handloom demonstration unit 4

To encourage prospective entrepreneurs to take up industrial activities, there are provisions to provide margin money/ seed money/ subsidy by the implementing agencies. However, several constraints may be highlighted: -

a) Lack of basic infrastructure facilities, inadequate marketing support/ accessibility, and raw material supply.
b) In-adequate power supply
c) Shortage of skilled /trained manpower
d) Lack of industrial experience, non-availability of managerial, administrative, and technical experience among the local entrepreneurs.
e) High-cost raw materials and transportation
f) Lack of coordination among various development agencies
g) Credit flow is very low due to the poor return of bank loans.

i. Is the district recognized with the ODOP product?

Large cardamom is recognized as the ODOP of the district by the administration based on the number of food processing industries processing the produce and the availability of the relevant commodity in the district.

Awareness about the ODOP Product in Mon District

It is observed from the primary survey that only one of the food processing enterprises in the district is aware of the ODOP product of the Mon district. There is a lack of awareness about the state and central government-initiated schemes in the district. DIC (District industries center) is suggested to advertise the schemes and policies promoted by the state and central government to create awareness among the beneficiaries in the district.

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

The recognized ODOP product (Large Cardamom) in the Mon district of Nagaland State has not been granted geographical indication status by the government of India.

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

The variety grown in Mon is black cardamom which is darker and larger than the more commonly found green cardamom. It is also grown in Sikkim, Darjeeling, and parts of Nepal and Bhutan.
A kilogram of large cardamom is sold at prices ranging from Rs 400 to Rs 600 which is several times more than the existing rates for rice, maize, or vegetables are grown in Mon and the neighboring districts. The lifespan of a plant is usually three years.

Large Cardamom products

- Whole Cardamom
- Powder Cardamom
- Cardamom Oil
- Oleoresin

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

From the primary survey, it is observed that none of the units in the district is involved in the secondary processing (Oil and Powder) of the Large cardamom. Farmers and traders are involved in the primary processing like primary processing (Grading, sorting, drying, and removing the calyx) and selling to the retail units.

It is estimated that among the total crop production of 545 MTs in the district, 600 to 700 kilograms of the large cardamom is used as the ingredient in the pickles and sticky rice biscuits.

There is no advanced processing like oil extraction or oleoresin from the cardamom in the district.

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

The district of Mon is considered backward as far as Industrial Activity is concerned. Traditionally, the people in the district work on metal-based products with simple technology but most of the production is meant for household needs and requirements. Basketry, weaving, stone crushing, wood-based units, sawmill, cement craft, steel fabrication, wood carving, pottery, handloom products, cane and bamboo products, stone tiles, spinning and black smithy, food processing units, carpentry are traditional activities in which a sizeable number of the local people are skilled.

Table 19: Details of Existing Micro & Small Enterprises and Artisan units in the Mon District

NIC Code No	Type of Industry (Registered)	No. of Units	Investment (Lakh)	Employment
1	Agro Based	2	2.5	8
2	Others	10	18	48
	Total	**12**	**20.50**	**56**

Source – Brief Industrial Profile Report by MSME, GOI

Classification of Processing Industries in Mon District

From the primary survey, it is observed that among 22 surveyed units, 21 enterprises are household units and one unit in the district is a micro-enterprise.

Figure 3: Classification of the processing enterprises in the district

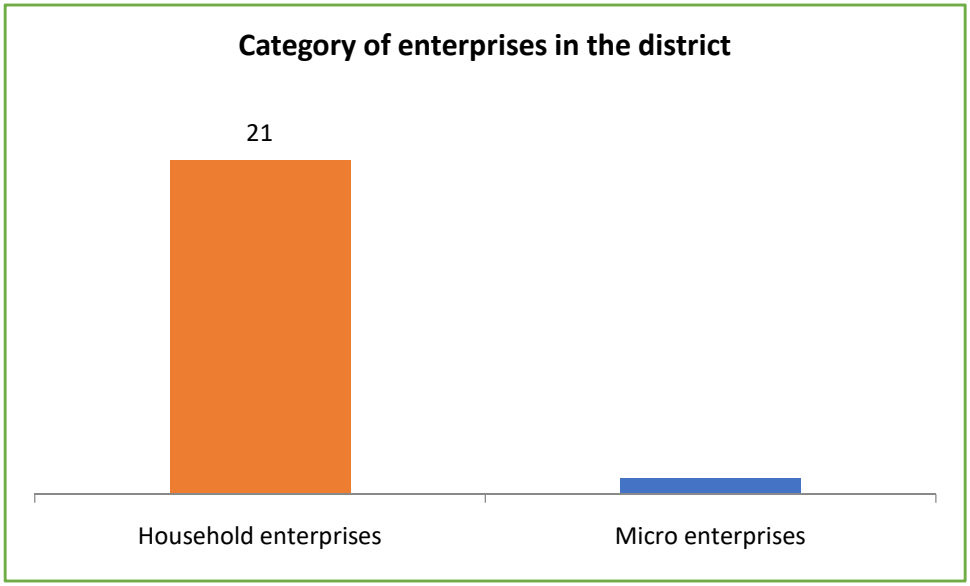


Table 20: Classification of the processing enterprises in the district	
Category of enterprises	**Respondents**
Household enterprises	21
Micro enterprises	1
Total	**22**

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

Though large cardamom is a 'high-value low volume' crop in the district, cultivation is more in the district, there is no such cluster defined for ODOP product i.e. large cardamom in the district.

There is a cluster identified for 'beads making cluster'. The detail is below:

Table 21: Name of the Cluster: - Beads making cluster at Mon town		
1	**Principal products Manufactured in the cluster**	
2	Name of the cluster	Beads making cluster, Mon
3	No functional units in the clusters	20 Nos
4	Turnover of the clusters	1.00
5	Value of exports from the clusters	Nil
6	Employment in clusters	20 Nos
7	Average investment in plant &Machinery	1.00 Lacs
8	Major issues/ requirement	Design making Training, Technology
9	Presence of capable institutions	KVIC/ NGOs on Mon
10	Thrust Areas	Capacity building, Training, loan
11	Problems &Constraints	Financials, marketing, publicity, etc

Presents status of the cluster: - Name of the cluster: one done by KVIC, Dimapur

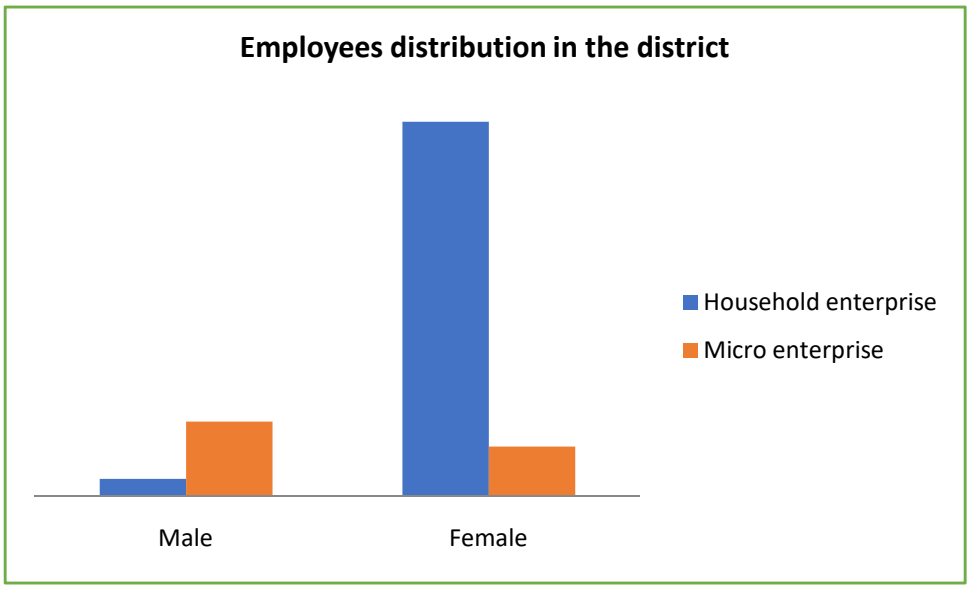
vii. Number of workers engaged in the ODOP processing

A total of 208 employees are working in the surveyed food processing industries in the district. Among the total workers engaged in food processing in the district, 158 workers are working in the household industries and 50 are working in the micro-enterprises. Among the total workers, 37 are male employees and 171 workers female employees.

Table 22: Number of workers engaged in the ODOP processing in the district

Enterprise	Male	Female	Total
Household enterprise	7	151	158
Microenterprise	30	20	50
Total	**37**	**171**	**208**

Figure 4: Number of workers engaged in ODOP processing



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

Currently, none of the processing units in the district are following any of the specialized marketing practices like advertisement or digital marketing. The processing enterprises in the district are selling the produce to the local retailers or the local consumer. Middleman plays important role in the aggregation of the produce from the growers and selling to retailers or wholesalers in the other taluka and villages. After the primary processing, it goes to the consumer through a network of wholesalers & retailers.

Marketing of agricultural products is mainly done in the weekly/daily markets and along the roadside. The farmers usually get lower prices for their produces in these markets. Therefore, to promote marketing efforts Agricultural Produce Marketing Committee (APMC) has been set up in the District.

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

There is no common facilities center like cold storage or pack houses or warehouses in the district. There is no FSSAI-accredited food testing lab in the district. There is only one market yard "Principal Market Yard (PMY) Mon" in the district/

Growers use the traditional Bhatti structure to cure the capsule of large cardamom. Scientific curing methods need to be adopted by the growers to keep the quality of the product and to maintain the essential oil in the cardamom.

Food processing enterprises in the district required improved Bhatti or scientific curing center for the better processing of the large cardamom which can be supplied under subsidized prices.

Figure 5: A) Traditional Batti. B) Improved Batti

Source: BioOne Complete

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

In 2019-20, the total area under the agriculture crops in the district is 52.6 thousand ha with the production of 177.2 thousand tons. Pulses, cereals, and oil seeds contribute 86.90% of the total crop area in the district with a production of 66.3%. Large Cardamom is grown in 655 ha which is 1.24% of the total crop area in the district with the production of 545 tons which is 0.31% of the total crop production.

Table 23: ODOP produce as a percentage of total agricultural production of the district

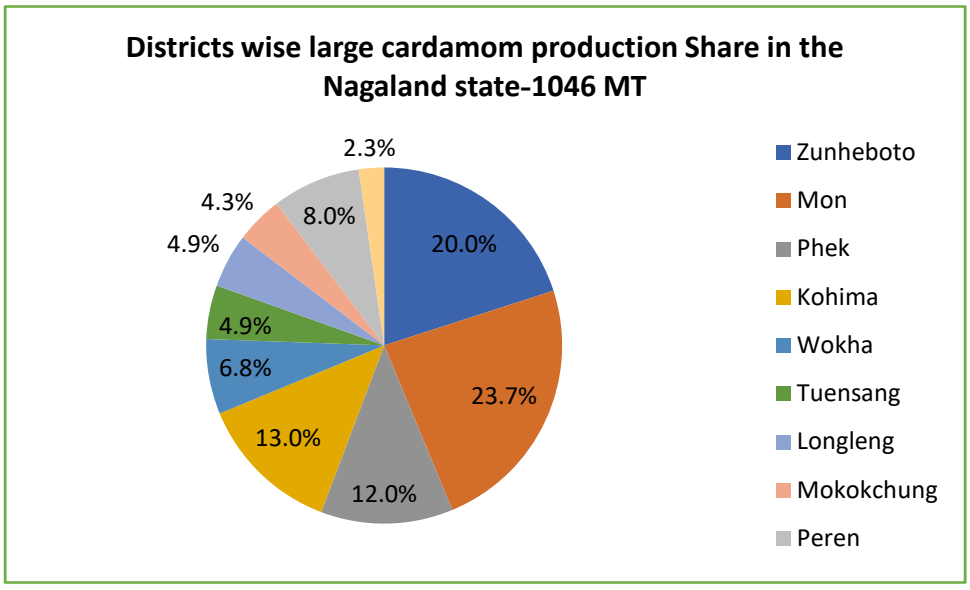
Crops	Area (Ha)	% Share	Production (MT)	% Share
Pulses, cereals, and oil seeds	45745	86.90%	117577	66.32%
Fruit crops	2287.5	4.35%	22106.43	12.47%
Vegetable crops	3342.53	6.35%	32562.71	18.37%
Cardamom crop	**655**	**1.24%**	**545**	**0.31%**
Other Spices crops	586	1.11%	4417.2	2.49%
Plantation crops	12	0.02%	9.6	0.01%
Medicinal crops	11	0.02%	60	0.03%
Total	52639.03	100.0%	177277.94	100.0%

Source: Department of Agriculture and Horticulture Nagaland

Mon district contributes 23.7% of the total agricultural crop production in the state followed by the Zunheboto district which contributes 20% of the total crop production.

None of the enterprises in the district are involved in secondary processing like powder and oil of the large cardamom crop. Farmers and traders are involved in sorting, grading, drying, and packaging the crop. The approximate selling prices of the large cardamom in the district are INR 400 to 600 per kg.

Figure 6: Districts wise large cardamom production Share in the Nagaland state



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

In the primary survey, 22 food processing enterprises were surveys involved in processing different types of pickles like king chilly pickles, ginger pickles, gooseberry pickles, etc., rice biscuits, and primary processing of the large cardamom.

There are 12 units' registered (Agro and Non-Agro industries) under the MSME in the Mon district with an approximate investment of 50.6 lakhs.

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

In the District, the State Government has promoted an FPO by the name, 'Mon District Organic Farmer Co-operative Society Ltd.' with 751 farmers as registered members.
There are around 26 SHGs involved in various Agri & livestock livelihood activities in the District.

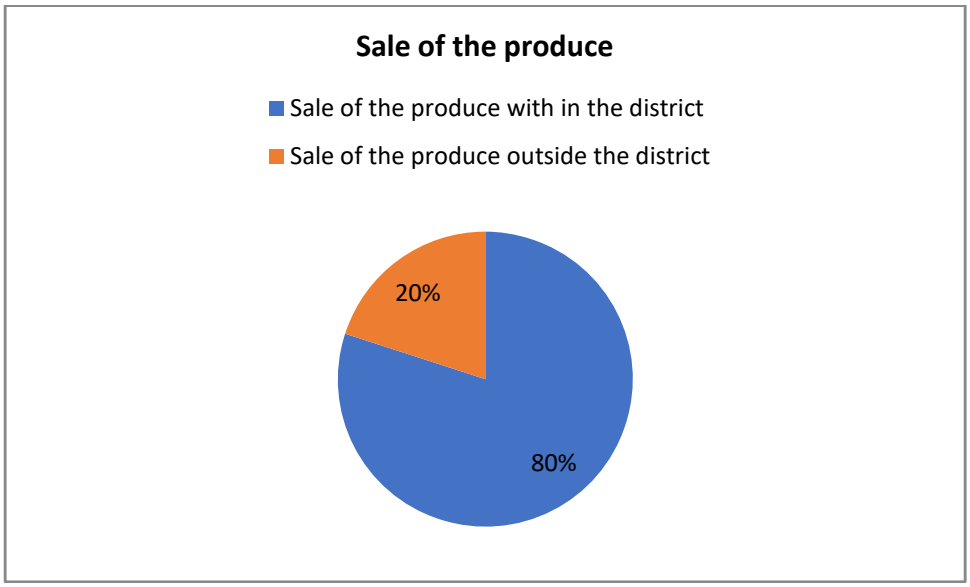
A list of the FPOs is attached in the Annexure

The Nagaland State Co-Operative Marketing & Consumers' Federation (Marcofed) Ltd., H.O. Dimapur
The Nagaland State Co-operative Marketing & 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.

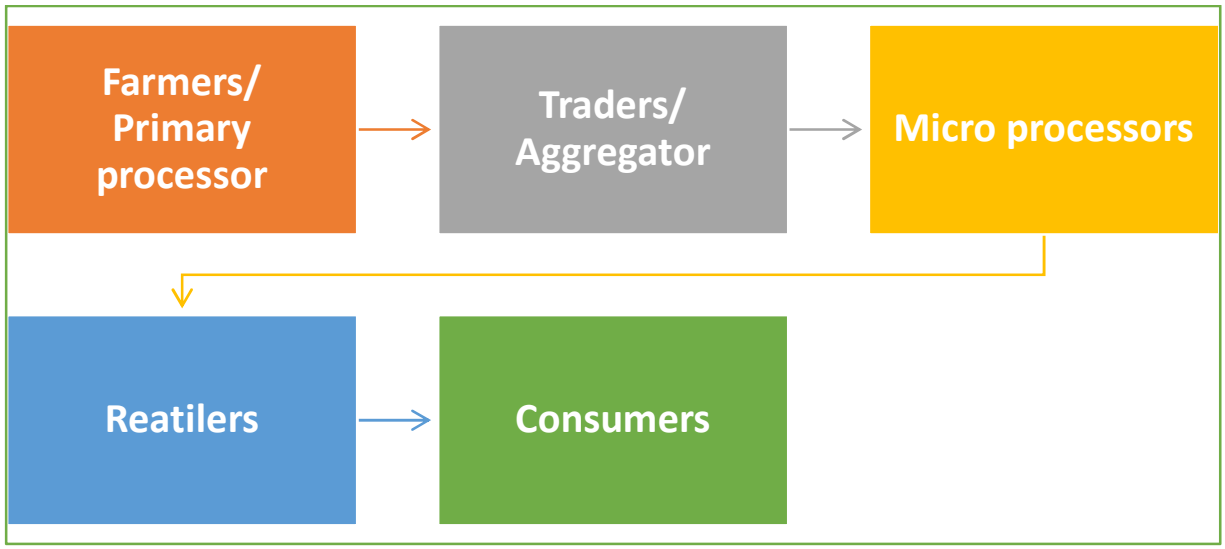
xiii. Sale of this product to other districts, and states and exported to other countries

Growers sell their produce to middlemen, local traders, and wholesalers. Sometimes traders came from another district to aggregate the produce. It is estimated that approximately 80% of the total 650 kilograms of the processed product is consumed within the district and 20% of the total processed produced is exported to other districts in the state.

Figure 7: Sales of the products within the district and outside the district



5. Mapping the value chain aspects



Grower: The large cardamom growers undertake cultivation throughout the year. The moisture content in the large cardamom is reduced to 10 to 13% through primary processing like sorting, grading, and drying by the growers/ farmers.

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: Most of the processing units in the district are household-level processing units. The majority of the processing units which are processing pickles and biscuits are using the whole cardamom as the ingredients for the pickles and biscuits.

Besides the above stakeholders, the State Directorate of agriculture 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:

Road quality is the basic infrastructure constraint in the district. Financial assistance requires for basic machinery and equipment like "Curing centers" or "Improved curing Bhatti" which helps in retaining the quality of the capsule in curing the produce. Common facilities like warehouses and cold storage are required to avoid distressed sales by the farmers during the peak harvesting period. For advanced processing like oil extraction, oleoresin, and cardamom powder from large cardamom, more advanced machines and equipment are required.

Table 24: Understanding the infrastructure constraints faced by Micro-enterprises

Infrastructure	Up-gradation proposals
A) Public Infrastructure	• Large cardamom growers are facing crop losses during transporting their produce to other districts. Due to the poor quality of roads, and road connectivity to other districts and states it becomes difficult for the product to reach outside the district and to other states. This is also restricting innovative growers and processors to enter the processing sector. • To overcome the transportation issue state and central governments should build/construct good roadways to connect nearby districts as well as states, which will reduce the transportation loss and encourage growers, SHGs, and FPOs to process the products in the district.
B) Common facilities	• There is no common infrastructure like pack houses and cold storage in the district for the processing enterprises and the farmers for primary processing. • It is proposed to establish a common facility for the processing enterprises in the district.
C) Testing facilities	• Due to poor public infrastructure and lack of common infrastructure facilities, the scale of the industry is very small in the district and the majority of the enterprises are not centerfield by the FSSAI. • There is only one food testing lab in the district. • The testing lab can also be set up in the proposed incubation center for the existing and new enterprises.
D) Safety standards	• Regular safety standards and quality checks for the processed product

	are required to ensure the quality of the product produced by consumers. • Most of the processor units in the district are not certified by the FSSAI.

D. Mapping the Firm level issues

Table 25: Mapping the firm-level issues

S. No	Sectors	Gaps	Recommendations	Costing (Lakhs)
1	Skill training needs	• There is a shortage of skilled labor in the cardamom processing industry and there are no proper skill training facilities available in the district.	• Provide training to the existing enterprises and new entrepreneurs on the primary processing and secondary processing (Cardamom powder, oil). • Skill training is required regarding the use of advanced technology and machinery like Pulverizer, sealing machine, Batch coding machine, Pod breaker cum peeler, and tray heater.	13
2	Manufacturing practices	• Existing farmers/Traders' Enterprises are following the traditional method of cardamom drying which affects the quality of the final product.	• Common processing facilities can be used for processing the products by the enterprises in the district.	400
3	Technologies	• There is no use of advanced technology or machine. • Existing farmers/Traders' Enterprises are following the traditional method of cardamom drying.	• Providing the advanced Pulverizer, sealing machine, Batch coding machine, Pod breaker cum peeler, and tray heater at subsidized prices for the processing enterprises.	1510
4	Access to finance	• Lack of financial support to the processing units due to lack of existing food	• The proposed incubation center can be used in attaining financial support	275

Table 25: Mapping the firm-level issues				
S. No	**Sectors**	**Gaps**	**Recommendations**	**Costing (Lakhs)**
		processing policies in the state and constraints faced in providing the collateral and preparing the DPR.	for the enterprises by providing DPR and guiding the enterprises in attaining financial and technical support.	
5	Access to mentorship/ Services	• There is no access to mentorship/ service in the 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

1. Industry and Market Analysis

1.1 Introduction

Large cardamom (*Amomum subulatum Roxb.),* a member of the family, Zingiberaceae is the main cash crop cultivated in the sub-Himalayan state of Sikkim and the Darjeeling district of West Bengal. Sikkim is the largest producer of large cardamom and contributes a lion's share to the Indian and world market.

The global cardamom market is projected to register a CAGR of 5.7% during the forecast period (2020-2025). Green cardamom, black cardamom, and Madagascar cardamom are the major type of cardamom cultivated across the globe.

1.2 Nutritive Value & Health Benefits of the product

Dried large cardamom capsules are used as a spice in various dish preparations, food essences, perfumes, and medicines.

Health benefits of Black/Large cardamom

- For Gastrointestinal Health-
- The oral care-
- Respiratory relief-
- Cardiovascular health-
- Good for your skin-
- Healthy hair-

1.3 Global Market for the Product:

Cardamom is mostly grown in tropical areas of the world. The country that produces the most cardamom is Guatemala, followed by India. The annual global supply of this spice is estimated to be about 35,000 MT. Cardamom consumption has risen dramatically over the last two decades all over the world More than 60% of the world's consumption is accounted for by Middle Eastern countries like Saudi Arabia and the United Arab Emirates, as well as South-East Asian countries like India. With an annual output of 4000 MT, India is the largest producer of broad cardamom (Amomum subulatum Roxburgh), followed by Nepal (2500 MT) and Bhutan (1000 MT). Sikkim accounts for more than 85% of all demand in India. Sikkim produces an estimated 4000 t of big cardamom per year, priced at about Rs.1.60 billion, accounting for nearly 80% of total production in India. Greater Indian cardamom, or Nepal cardamom, is a native of the Eastern Himalayan region.

1.4 Indian Market & Valuation for the Product

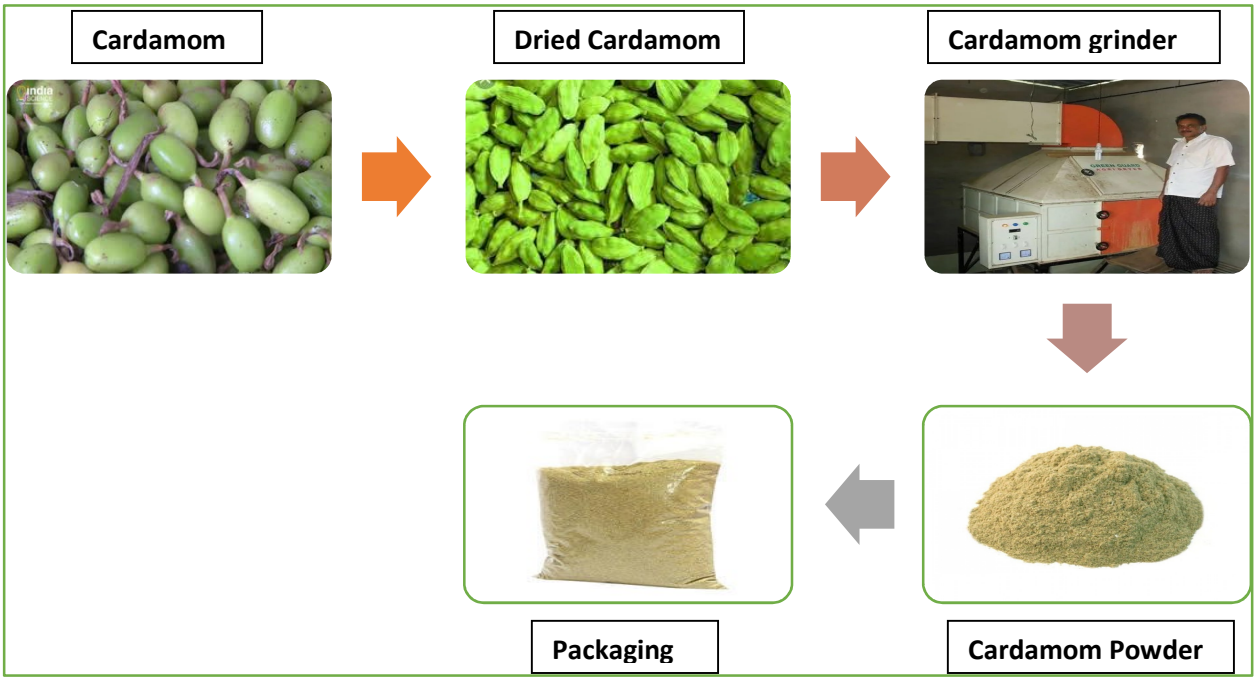
India is the largest producer of large cardamom with a 54% share in world production, and Sikkim contributes up to 88% of India's production. Large cardamom is also cultivated in parts of Uttarakhand

and some other North-eastern states. The districts of Kalimpong and Darjeeling in West Bengal are among the leading producers of large cardamom in India.

Large cardamom has been a major agricultural cash crop and export commodity of Southeast Asian countries in recent years.

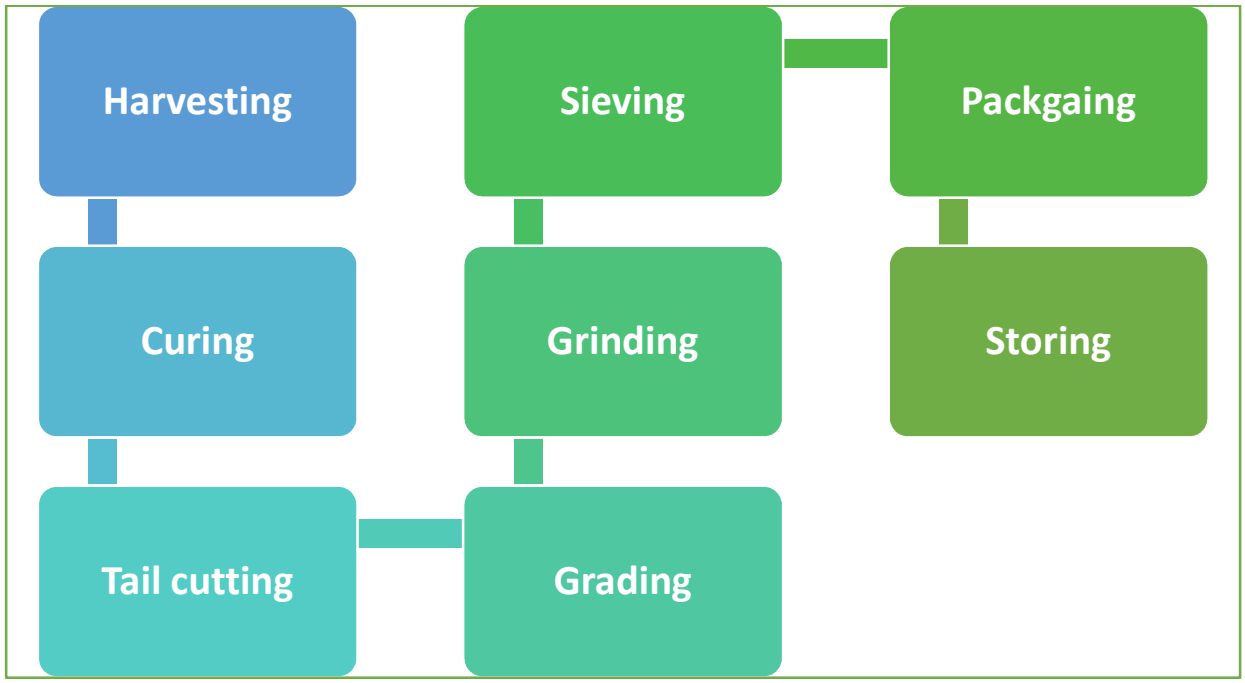
1.5 Manufacturing Process

Figure 8: Cardamom powder manufacturing processing



Source: Primary Survey and India Mart

Figure 9: Flow chart of the cardamom powder manufacturing processing



The machinery required for large cardamom processing:

Table 26: Cardamom powder: Capacity 30 MT/ Per year

S. No	Equipment	Capacity	Quantity	Price (Lakhs)
1	Cold room	1	5000 Kg	6
2	Tray heater	1	200 Kg per batch	2.9
3	Pod breaker cum peeler	1	50 Kg per Hour	1.1
4	Pulverizer	1	Suitable	1.4
5	Cont. Sealing machine	1	Suitable	0.25
6	Batch coding machine	1	Suitable	0.12
7	Weighing balance	1	Suitable	0.06
8	Accessories	1	Suitable	0.5
				12.33

Source- PMFME training material

1.6 The test is done for the Product

At present pre-processors are not practicing qualitative and quantitative tests for the product. Here we are explaining what are all tests and parameters required for testing. Information is provided based on our primary interaction with FSSAI officials and also through secondary research.

The Bureau of Indian Standards (BIS 1999) has established quality standards for large cardamom capsules based on the Prevention of Food Adulteration Act of 1954. Some importing countries allow only the product that conforms to these standards. However, awareness of the standards is minimal among growers and traders.

Table 27: Indian government quality standards for large cardamom	
Quality Parameters	**Requirements**
Odor and taste	Free from foreign odor and taste, including rancidity and mustiness
Insects, molds, and other infestations	Not more than 10% on visual observation
Extraneous matter	Not more than 5% (by weight)
Empty & malformed capsules	Not more than 5% (by count)
Immature and shriveled capsules	Not more than 7% (by weight)
Light seeds	Not more than 5% (by weight)
Moisture	Not more than 12% (by weight)
Volatile Oil	Not less than 1% (ml/100 g) on a dry basis
Source: Bureau of Indian Standards (BIS)	

2. District Profiling

There are 112 Grampanchayat in the district. There are almost 22 food processing units in the district. The majority of the traders and farmers are involved in the primary processing of the large cardamom processing in the district. However, there is no cluster for large cardamom processing in the district.

2.2 Demographic and Socio-economic profiling

According to the 2011 census Mon District has a population of 250671. Mon has a sex ratio of 898 females for every 1000 males, and a literacy rate of 56.60%.

Table 28: Demographic and Socio-economic profiling of the district				
S. No	**Particular**	**Year**	**Unit**	**Statistics**
1	Geographical features			
A	Geographical Data			
	i) Latitude			25.62* North
	ii) Longitude			95.42* East
	iii) Geographical Area		Hectares	178600
B	Administrative units			
	i) Sub Divisions			6
	ii) Tehsil			NA
	iii) Sub-Tehsil			NA
	iv) Patwar circle			14

Table 28: Demographic and Socio-economic profiling of the district				
S. No	Particular	Year	Unit	Statistics
	v) Panchayat Simitis			NA
	vi) Nagar Nigam			1
	vii) Nagar Palika			Nil
	viii) Gram Panchayats		Nos	112
	ix) Revenue Villages		Nos	112
	x) Assembly Area		Nos	9
2	Population			250671
A	Sex wise			
	i) Male (Urban)	2011	Nos	18489
	ii) Female (Urban)	2011	Nos	16229
B	i) Male (Rural)	2011	Nos	113573
	ii) Female (Rural)	2011	Nos	102380
3	Agriculture			
A	Land Utilization			
	i) Total Area	2011	Ha	178600
	ii) Forest cover		Ha	49820
	iii) Non-Agriculture Land		Ha	89443
	iv)Cultivation of Barren Land		Ha	39337
4	Forest		Ha	49820
	Railways			
	i) Length of the rail line	2010-11	Km	Nil
	Roads			
	a)National Highway	2010-11	Km	Nil
	b) State Highway	2010-11	Km	44.25
	c) Main District highway	2010-11	Km	148
	d) another district	2010-11	Km	671.05
	e) Rural Road/Agriculture Marketing Board Roads	2010-11	Km	200
	f) Kachacha Road	2010-11	Km	1062.70
	Communication			
	a)Telephone connections	2010-11	Nos	54000
	b)Post offices	2010-11	Nos	30
	c) Telephone Centre	2010-11	Nos	12
	d) Density of Telephone	2010-11	Nos/1000 person	250.67
	e) Density of Telephone	2010-11	Nos/KM	NA
	f) PCO	2010-11	Nos	450

Table 28: Demographic and Socio-economic profiling of the district				
S. No	**Particular**	**Year**	**Unit**	**Statistics**
	g) PCO-STD	2010-11	Nos	250
	h) Mobile	2010-11	Nos	55000
	Public Health			
	a)Allopathic Hospital(District Hospital)	2010-11	Nos	1
	b) Beds in Allopathic Hospital	2010-11	Nos	212
	c)Ayurvedic Hospital	2010-11	Nos	Nil
	d) Beds in AyurvedicHospital	2010-11	Nos	Nil
	e) Unani Hospitals	2010-11	Nos	Nil
	f) Community Health Center	2010-11	Nos	2
	g) Primary Health Centre	2010-11	Nos	15
	h)Dispensaries	2010-11	Nos	Nil
	i)Sub-Health center	2010-11	Nos	50
	j)Subsidiary Health Centre	2010-11	Nos	Nil
	k)Private Hospitals	2010-11	Nos	NA
	Banking Commercial			
	a)Commercial Bank	2010-11	Nos	4
	b)Rural Bank products	2010-11	Nos	Nil
	c)Co-operative bank products	2010-11	Nos	1
	d)PLDB Branches	2010-11	Nos	Nil
	IX)Education	2010-11	Nos	
	a)Primary School	2010-11	Nos	148
	b)Middle Schools	2010-11	Nos	139
	c)Secondary & Senior Secondary Schools	2010-11	Nos	31
	d)Colleges	2010-11	Nos	1
	e) Technical University	2010-11	Nos	Nil
Source: DIC, Mon district				

2.3 Industrial Profiling

In Mon district there are altogether around 121 industrial units. All kinds of small, large & medium industries employ 500 employees.

3. Cluster Analysis

Considering the quantity of the large cardamom production in the district, Chi, Hongphoi, Sangnyu, Yuching, Phomching, Totok Chingha, Ponkong, and Lampong, are the potential cluster for the large cardamom in the district. Growers are involved in primary processing like curing/drying of the capsules, calyx cutting, etc. None of the food processing units in the district are involved in secondary processing like oil extraction and cardamom powder processing.

There are no common infrastructure facilities like cold storage, pack houses, or warehouses available for the processing units/ farmers in the district.

3.2 Turnover & Employment

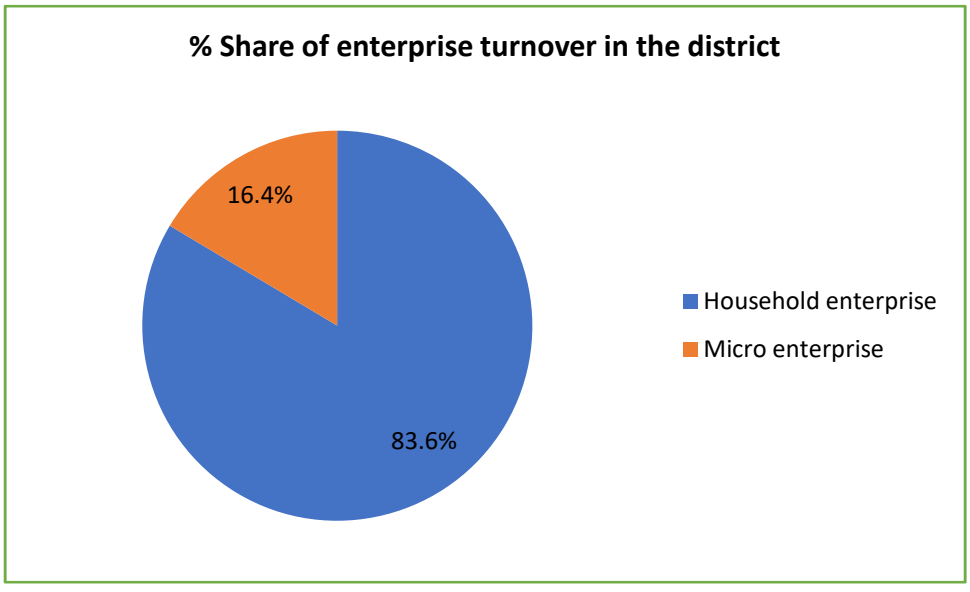
Turnover:

The estimated turnover of the food processing industries in the district is 507.25 lakhs. Among the total turnover of the enterprises in the district, household enterprises contribute 80.3% and micro-enterprise contributes 19.7% of the total turnover district.

Table 29: Turnover of the food processing enterprises in the district

Enterprise	Turnover (Lakhs)	% Share
Household enterprise	127.25	83.6%
Microenterprise	25	16.4%
Total	152.25	100.0%

Table 30: The percentage share of the enterprise turnover in the district



Employment:

About 208 workers are engaged in the food processing industries in the district. Among the total employees working in the food processing industries, 171 employees i.e. 83% of the total employees in the food processing industries are females and 17% are male employees.

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:

- **Curing centers-** Curing/drying of the capsules is the most important post-harvest activity for large cardamom. Optimum temperature and indirect heating is the most crucial aspect of the process. Hence there is a need for scientific curing centers or improved Bhatti's for the process in the district.
- **Grading Machines-** Calyx cutting and grading activities are done manually which is a labor-intensive process. Hence mechanical grading machines are required essential for large cardamom processing.

Table 31: Cardamom powder Machinery (Capacity 30 MT/ Per year)

S. No	Equipment	Capacity	Quantity	Price (Lakhs)
1	Cold room	1	5000 Kg	6
2	Tray heater	1	200 Kg per batch	2.9
3	Pod breaker cum peeler	1	50 Kg per Hour	1.1
4	Pulverizer	1	Suitable	1.4
5	Cont. Sealing machine	1	Suitable	0.25
6	Batch coding machine	1	Suitable	0.12
7	Weighing balance	1	Suitable	0.06
8	Accessories	1	Suitable	0.5
	Total			**12.33**

Source- PMFME training material

Figure 10: Essential machinery for the cardamom processing

1. Tray drier. 2. Cardamom peeler. 3. Cardamom pulverizer. 4. Cardamom powder packaging machiner

Source: India Mart

3.4.2 Existing infrastructure

There is no common infrastructure like cold storage and pack houses in the district for the processors. There is no incubation center and common processing center to encourage the new entrepreneurs and support the existing enterprises.

3.4.3. Additional infrastructure required

- **Incubation center-** There is a need to set up an incubation center to train the existing and new entrepreneurs and provide handholding support to them.
- **Common infrastructure facility (Cold Storage and Reefer van)-** Common infrastructure facilities like cold storage, reefer vans, and pack houses need be to installed in the district to avoid crop distress sales during the peak harvest period.
- **The machinery required-** Currently, there is no secondary processing of the large cardamom in the district but in the primary survey it was observed that there are few entrepreneurs interested in cardamom processing if the necessary support is provided.
- **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 & their proper maintenance.

3.5 Raw materials

3.5.1 The vital raw material

Post harvested cardamom capsules are used as the raw material for the production of the product. Also, sodium carbonate is required for the cardamom powder-making unit.

Table 32: Vital raw material for cardamom powder

S. No	Particulars	Rate INR (Approx.)
1	Cardamom capsule	450-550 Kg
2	Sodium carbonate	30-40/ Kg

3.5.2 The quality parameters being checked for all the raw materials

Large cardamom whole:

The capsule shall have a characteristic flavor free from foreign odor, mustiness, and rancidity. It shall be free from mould, living and dead insects, insect fragments, and rodent contamination. The product shall be free from dead coloring matter and any harmful substance

- Extraneous matter: Not more than 1% by weight
- Empty and malformed capsules by count: Not more than 2% by count
- Immature and shriveled capsules: Not more than 2% by weight
- Moisture: Not more than 12% by weight
- Ash insoluble in dilute HCL on a dry basis: not more than 2% by weight
- Total ash on a dry basis: not more than 8% by weight
- The volatile oil content of seeds on a dry basis: Not less than 1% by v/w
- Insect damaged matter: Not more than 1% by weight

Large cardamom seed:

The capsule shall have a characteristic flavor free from foreign odor, mustiness, and rancidity. It shall be free from ould, living and dead insects, insect fragments, and rodent contamination.

- Extraneous matter: Not more than 2% by weight
- Light seeds/ Brown/ Red seeds: not more than 3% by weight
- Moisture: Not more than 12% by weight
- Total ash on a dry basis: Not more than 8% by weight
- Ash insoluble in dilute HCL on a dry basis: Not more than 2% by weight
- The volatile oil content of seeds on a dry basis: not less than 1% by v/w
- Insect damaged matter: Not more than 1% by weight

3.5.3 Whether the raw materials are perishable

The fresh capsules are fleshy with almost 85% moisture and the shelf life of the fresh capsule is also very less. Fresh capsules are cured or dried to about 10-13% moisture on a dry weight basis to prolong their shelf life.

3.6 Production Process

The detailed production process for cardamom powder is explained in point number 4.5 i.e. manufacturing process

3.7 Product Range

- Whole Cardamom
- Powder Cardamom
- Cardamom Oil
- Oleoresin

3.8 Technology

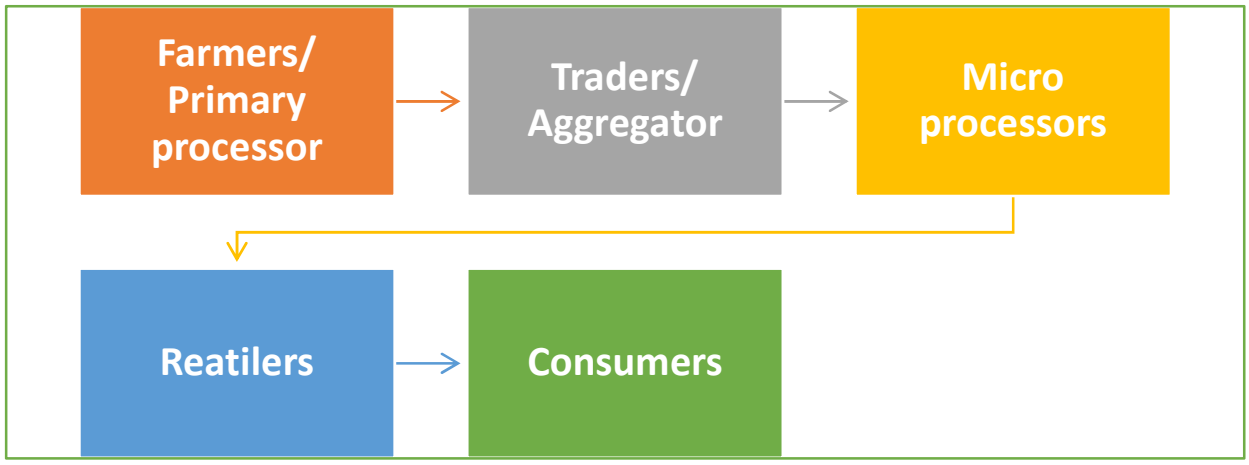
Removal of smoky odor from cardamom capsules developed by CFTRI

Freshly harvested wet cardamom is spread on the platform to a thickness of about 20 to 25 cm. Firewood is burnt below and hot air with smoke passes through the bed of capsules which helps in drying. Occasional stirring is done with a long-handled wooden rake. Depending on the thickness of the spread, it takes 2 to 3 days for complete drying. The cardamom obtained by the traditional method is dark brown and has a strong smoky odor due to direct contact with smoke. The original aroma and even the chemical composition of the cardamom may change due to direct heating with exposure to smoke. The bulk of the large cardamom drying is still carried out by the traditional 'Bhatti' curing system. The quality of the 'Bhatti' - cured produce is inferior concerning the appearance, texture, and flavor quality of the oil. The smoke odor in the oil derived from 'Bhatti' - cured large cardamom is undesirable for food application. Therefore a method was developed for the removal of smoky odor from 'Bhatti' cured, large cardamom oil which can be employed before the oil is released for marketing. The process involves the use of stirring the oil having a smoky odor with activated charcoal using a suitable stirrer, refluxing the mass with water on a heating mantle by hydrodistillation. The oil thus obtained by this method is free from smoky odor.

3.9 Marketing

Farmers or the traders are processing (primary processing) the production and selling to the local trader or the retail outlets or the consumer. There is no special marketing like an advertisement or digital marketing by the processor in the district. None of the enterprises are selling the product with a specific brand name.

Figure 11: Sales channel of the produce



3.10 Human Resource

Among the 22 total surveyed samples, 21 enterprises are operating at the household level and one enterprise is operating at the micro level and 19 of the processing units in the district are registered and 3 are operating in the district without the registration.

208 employees are working in the surveyed enterprises in the district. Among the total employees in the food processing enterprises, 158 are working in the household enterprises and 50 are working in the micro-enterprise. 17% of the employees working in the district are male and 83% are females

3.11 Skill Development

There is a shortage of skilled labor in the cardamom processing industry and there are no proper skill training facilities available in the district. The administration is proposed to provide training to the existing enterprises and new entrepreneurs on the primary processing and secondary processing (Cardamom powder, oil). Skill training is required regarding the use of advanced technology and machinery like Pulverizer, sealing machine, Batch coding machine, Pod breaker cum peeler, tray heater and also on creating the branding and marketing of the produce.

3.12 Testing

None of the enterprises in the district are selling the products certified by the FSSAI or other organizations. There is only 1 testing facility in the district. All the units in the district are selling the processed cardamom without the FSSAI certificate/ number.

3.13 Institutional Support

I. Assistance scheme for spices export:

Eligibility criteria:

All the registered exporters who have registered their brands with the Board, Spice House Certificate (SHC), Logo holders, and organic certification holders are eligible to avail of the benefits of the scheme. The recognized research institutions are also eligible to apply for this assistance scheme.

Assisted Area under the Scheme:

- Utilization of the services of international or national research institutes for the development of new spice products and applications or for establishing traditional and non-traditional values.
- In-house research programs by entities with sufficient infrastructure facilities.
- Clinical trials to establish and verify the therapeutic properties of the spices through reputed third parties.
- Patenting and product registration in consuming countries.
- Spices Board would examine the application forms and on satisfying the proposal, the Board will accord 'in-principle' approval to the project proposal on merit to proceed with the project further.

The scale of assistance:

Under this scheme, the subsidy is provided at 50% of the cost subject to a maximum amount of Rs.25 lakhs per beneficiary during the plan period that is provided to meet the cost of product research and

development. In the case, the clinical trials and patenting are also involved in the program, the ceiling amount will be up to Rs.1 crore. All payments under the assistance schemes by the Board would be in the form of a crossed cheque or Bank transfer.

II. Spice development agency (SDA):

The government of India has notified the formation of 11 Spice Development Agencies (SDAs) in the main Spice growing regions for the overall development of spices grown in the region. These agencies will be chaired by the Chief Secretary of the concerned State Government and consist of members from the Ministry of Commerce & Industry, the State / Central Agriculture / Horticulture Ministry, other related Central / State organizations, and Agri. University, Member of Spices Board from the region and various stakeholders of the Industry viz. growers, traders, and exporters of spices. The Agency will identify the issues and formulate programs relating to production, domestic marketing, and quality and export promotion of Spices in the region. Spices Board's offices have been restructured for facilitating the formation of SDAs and effectively implementing various programs formulated by the SDAs.Accordingly,12 Regional Offices (ROs) of the Board have been established in major spice-growing centers in the country. The programs identified by the SDAs will be implemented by the Regional Office (RO) of the Board, attached to the SDAs in coordination with the State Government subject to the approval of the Board. The SDAs will function under the overall authority, supervision, and control of the Spices Board.

III. Spices Park:

A Spices Park can be defined as an industrial park for processing and value addition of Spices and Spice products which offers processing facilities at par with international standards. The Regional crop-specific Spices Park is a well-conceived approach to having an integrated operation for cultivation, post harvesting, processing for value addition, packaging, storage, and exports of spices and spice products by meeting the quality specifications of the consuming countries.

Facilities at Spices Parks:

The basic objective of the concept is to provide common infrastructure facilities for both post-harvest and processing operations of spices and spice products, which also aims at backward integration by providing rural employment. All the Spices Park will have processing facilities at par with international standards in which the produces could undergo cleaning, grading, sorting, grinding, packing, warehousing, etc. Apart from the above facilities, the Board will develop common infrastructure facilities like Roads, Water supply systems, Power stations, Firefighting & Control systems, Weighing bridges, effluent Treatment Plants, Quality Lab for checking basic parameters, Bank & Post office counters, Restaurant, Business centers, Guest house, etc.

Spices Park will also render educative services to the farming/trading community. It provides training programs on Good Agricultural Practices (GAP), post-harvest operations, advanced processing practices, global food safety and quality standards and issues, etc. The establishment of Spices Park in the country

is a major initiative of the Government as part of its commitment that any growth in the country should be more agriculture-specific and pro-farmers. Spice Park will ensure better pricing for the produce by shortening the channels in the supply chain system currently followed locally. The common processing facilities available in the Spice Park can be utilized by the farming community for primary processing for improving the quality of their product and thereby they can directly sell to the exporters.

3.14 Support Infrastructure

There are no common infrastructure facilities and incubation centers in the district for the processing enterprises. There is a measurable loss in crop quality and aroma during transportation due to the lack of road connectivity within the district and to other states. Road connectivity needs to be improved with the initiatives from the state and central government in the district. The electricity and water supply need to be concentrated in the processing enterprises.

It is proposed to establish a common infrastructure facility and incubation center in the district for the handholding support of food processing enterprises in the district.

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 small and household scale. There is no impact negative impact on the environment by processing the large cardamom.

3.17 Cluster Actors

No skilled and semi-skilled Workers

About 1,47,654 workers are available in the district. Out of the total workers available in the district, 79,425 are male and 68,229 are female workers available in the district.

Almost 208 workers are working in the food processing enterprises in the district. Approximately 85% of the employees working in the food processing enterprises are females. None of the employees in the enterprises in the district received any training in food processing.

Manufacturers

Large cardamom Processors are scattered throughout the district.

Unit Owners – approximately 14

Raw Material Supplier-

- Large cardamom Growers are the main raw material suppliers
- Wholesalers or traders in the village supply the material i.e. the whole cardamom to processing units that uses it in pickle products or other spices.

Enterprise Promotion Councils

An enterprise promotion council does not exist in the district.

Financial Institutions

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

Marketing Players

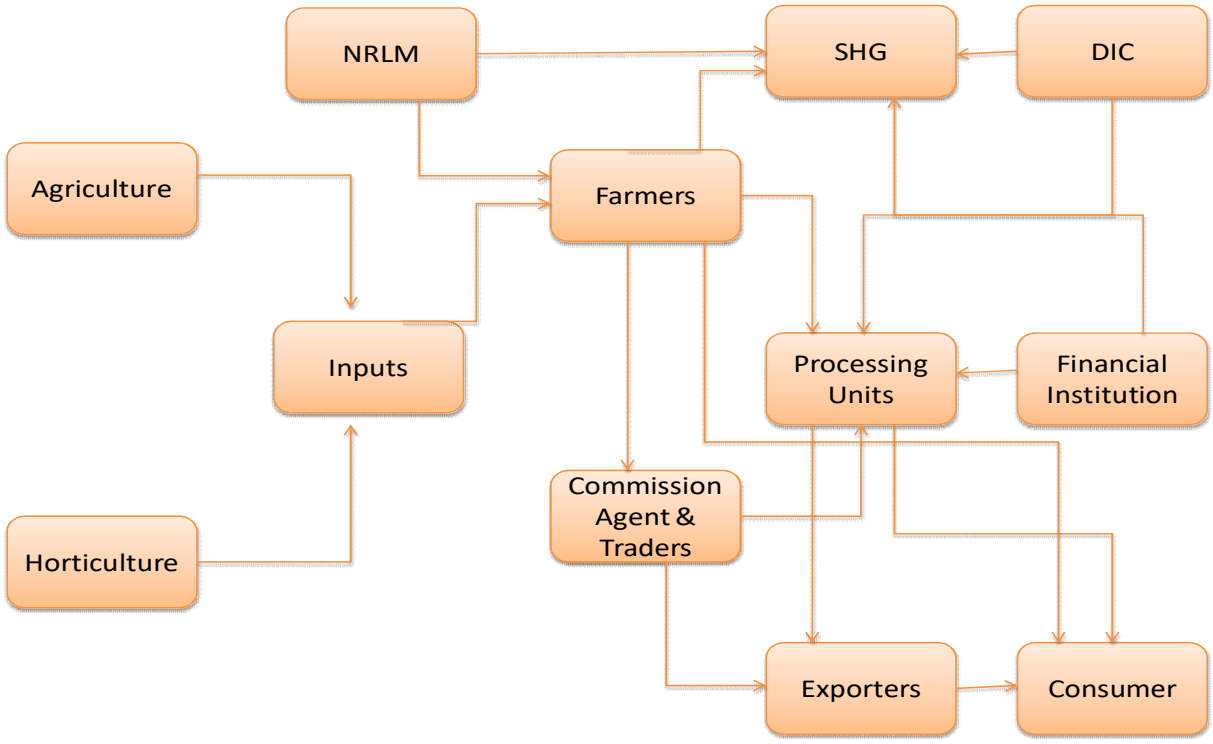
There are no major marketing players in the district. Farmers are selling the produce across districts and traders buy the produce from farmers and distribute it to other districts and states.

3.18 Existing Government Schemes

All schemes from MOFPI, Nagaland government, and PMFME are mentioned in detail in points number 2.1, 2.2 & 2.3 of this document.

3.19 Cluster Map

Figure 12: Cluster map



3.20 Value Chain

Grower: The large cardamom growers undertake cultivation throughout the year. The cardamom capsule needs to cure/dry to reduce its moisture content up to 10 to 13%. Only post-harvest processing is done by growers.

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: Most of the processing units are in the household category. They are dealing with whole cardamom only. Most of them are using it in pickle and biscuit processing. There is scope for oil extraction & oleoresin from large cardamom if financial assistance is provided to the processors.

Besides the above stakeholders, the State Directorate of agriculture 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.

3.21 Product Cost Analysis

Approximately INR 931 profit is generated from processing 1-kilogram cardamom powder. INR 450 is the cost price of the kg cardamom capsules which has the recovery of 22.5% cardamom powder. INR 2069.4 is the expenditure incurred in processing 1 Kilogram cardamom. The selling price of the kilogram of cardamom powder is INR 3000. The B: C ratio of processing cardamom powder is 1.4.

Table 33: Product cost Analysis of the cardamom powder

S. No	Particulars	Value	Cost per Kg
	Expenditure		
I	**Fixed cost**		
1	Depreciation of land @10%	4,50,000	3
2	Depreciation of Machinery @15%	12,30,000	12.4
3	Repair and Maintenance @ 5% of the machine cost		4.1
	Total		**19.5**
II	**Variable cost**		
	Raw material		
	Cost of cardamom per Kg		450
	Required cardamom for processing 1 kg powder -4.5 kg (Recovery of cardamom powder -22.5%)		2025
i.	**Total**		**2025**
	Wages		
	Supervisor	15000	1
	Technician	12000	0.8
	Helpers (2)	12000	0.8
	Salesman	8000	0.5
ii.	**Total**	**47000**	**3.1**
	Electricity bill	28000	1.8
	Packaging material		15
	Transportation (Loading and Unloading charges)		5
	Total Variable cost		**2049.9**
	Total expenditure (Fixed cost+ Variable cost)		**2069.4**
	Revenue		
	The selling price of the powder		3000
	Revenue		3000
	Profit (Revenue- Expenditure)		931

	B: C Ratio		**1.4**

3.22 SWOT Analysis

Table 34: SWOT analysis

Strength	**Weakness**
• Large cardamom is famous for its unique taste, aroma, and odor in the district • Organic production of the produce. • Availability of the product in the district for the processing enterprises	• High price fluctuations of the crop • Lack of secondary processing in the district- No advanced processing like oil extraction or oleoresin from large cardamom in the district • No awareness about ODOP, government support, and schemes for the processors in the district • Lack of advanced machinery like improved bhattis, curing centers, grading machines, etc • No formal organization or cluster available for cardamom processing units • Lack of skilled labor in the district for the processing units
Opportunities	**Threats**
• Tremendous scope for secondary processing like essential oil extraction or oleoresin from large cardamom and cardamom powder. • Products can be sold through exhibitions, online stores, and distributor networks. • There is scope to capture foreign markets for export of the value-added products of large cardamom. • Opportunity to create brand and market for the produce. • Opportunity to upgrade the unit with the help of state and central government support schemes.	• High fluctuation in the selling price of the processed commodity • Competition from the existing brands in the settled brands in the market.

4. Benchmarking studies

Success Stories of Sikkim Large Cardamom Farmers- Improved Bhattis' Enhanced Colour and Aroma of Large Cardamom

Farmers of Sikkim's Dozing area have long been using 'local bhattis' for curing large cardamom which is one of the major cash crops of the region. However, growers could not get the good color and aroma of this important spice till they cured large cardamom in 'improved Bhatti's designed by Indian Cardamom Research Institute (ICRI).

Improved Bhatti's were provided to local growers selected as beneficiaries under the NAIP Livelihood Project of ICAR. Bhattis were constructed as per the design supplied by ICRI, Spices Board, and Tadong. In each Bhatti, 400 kg of fresh capsules could be cured at a time. By curing in improved bhattis, large cardamom retains better color and aroma, and hence commands a premium price in the market. These improved Bhatti's were also given to local SHGs and various NGOs working in the State of Sikkim for the welfare of farmers. If further support in terms of infrastructure and marketing is provided, our cardamom can reach foreign countries and can fetch higher price due to its better color, aroma, and flavor', said some local farmers. ICRI's improved Bhatti have been constructed as long-term assets on the project site. Linkages with North Eastern Regional Agricultural Marketing Corporation Ltd. (NERAMAC) for marketing of large cardamom with other farm produces helped local farmers to get maximum profit. Each intervention has been planned in such a way that it should bring sustainable development among growers even after the completion of the project.

Due to attractive income, now farmers have started cultivating large cardamom scientifically. Scientists are providing necessary advice and intervention to farmers in their fields. Nurseries for the production of high-quality planting materials of large cardamom are established which were not in practice before. Multiplication units established in collaboration Spices Board, Development Departments and NREGA are producing high-quality plantlets. Planting materials are used for domestic as well as for marketing purposes. Improved Bhattis have transformed the cultivation of cardamom into a profitable venture ensuring quality livelihood for farmers.

Source: *NAIP, Mass Media Project, DKMA with inputs from ICAR-RC-NEH, Barapani*

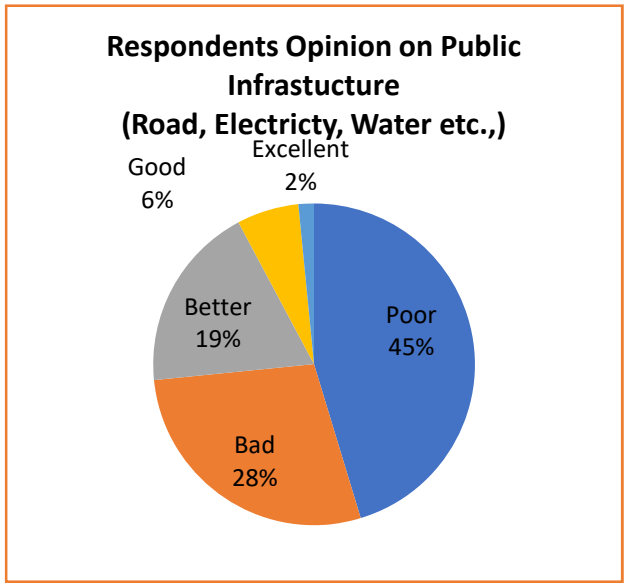
5. Stakeholder Consultation

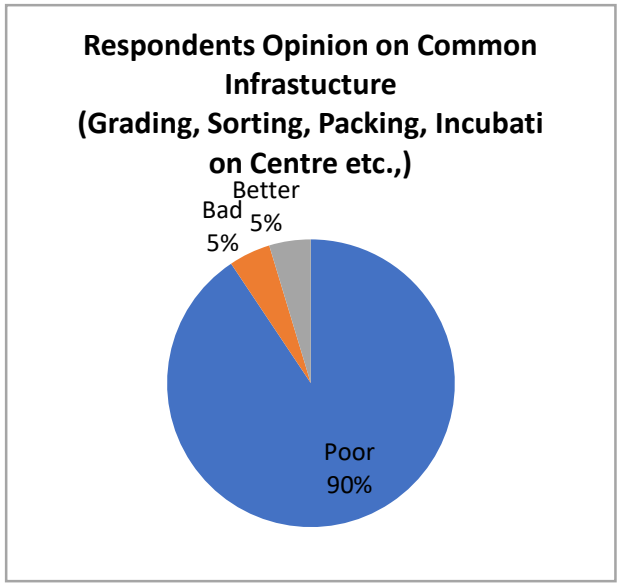
5.1 Individual Meetings –

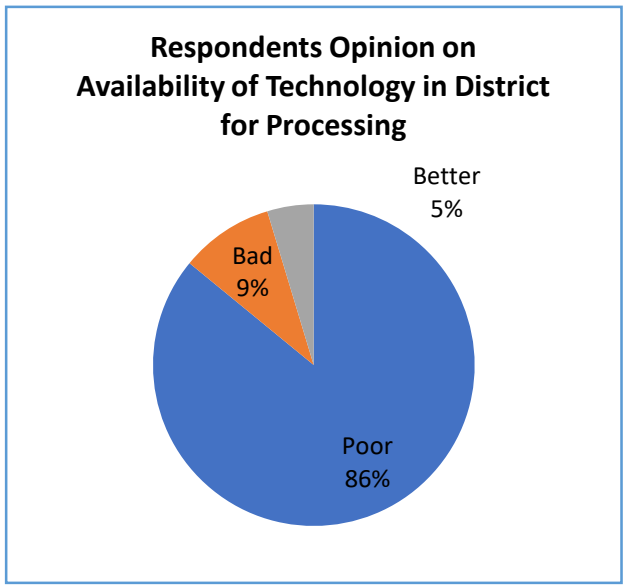
A Survey of 22 food processing units is done through face-to-face meetings. To understand their perspective about business & other factors related to processing industries. All the information mentioned in a questionnaire is filled in the individual meetings.

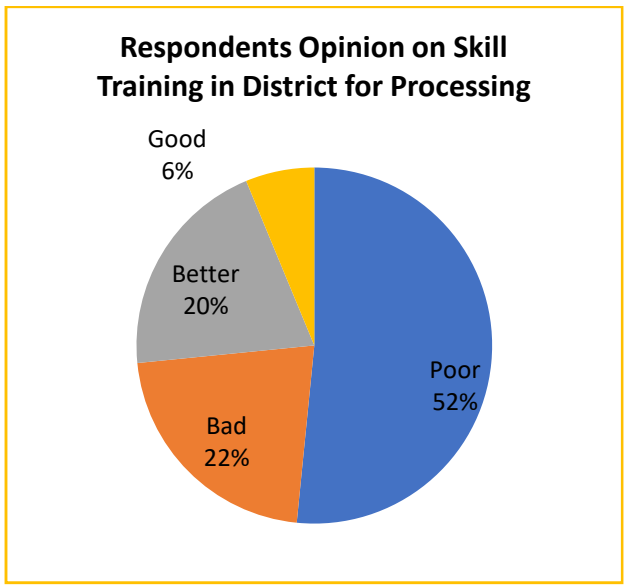
The below pie chart is prepared based on the opinion of respondents on existing public infrastructure, common infrastructure, availability of technology, and skill training for processing ODOP products.

Figure 13: Individual meeting









5. 2 Agenda Points & 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 & Gap Study

Table 35: Gap Study Gaps	Remark
Secondary Processing	• Large cardamom processing in the district is confined only to the primary processing i.e. drying, grading sorting & packaging of the large cardamom capsules only. • There is a huge scope for processed products like cardamom powder, essential oil extraction, oleoresins, etc which have a huge market in India and globally.
Technology	• There is no use of advanced technology or machine. All the processing in the district is manually processing the produce. • Improved battles, curing centers, and grading machines are proposed to be supplied at subsidized prices to the processors to encourage secondary processing in the district.
Public Infrastructure	• A good quality road is a basic constraint in infrastructure, almost every respondent mentioned about quality and connectivity of roads.

Table 35: Gap Study Gaps	Remark
	• Due to the poor quality of roads, there are high losses in the crop post-harvesting.
Testing Facilities	• There are no proper testing labs in the Mon district. The majority of the food processing industries in the district are selling the product without FSSAI testing.
Skill Training	There is a shortage of skilled labor in the cardamom processing industry and there are no proper skill training facilities available in the district. Skill training is required regarding this advanced technology and machines in the business.
Marketing	There is a strong need of marketing the product through various channels like events, exhibitions, online marketing, etc. In the current situation, product sale from the processor is confined to the village or town level only. Need to focus on the branding and marketing of the product. The areas to be covered in Training and marketing are: Standardization of product processing, training on handling the advanced machinery and equipment, training on branding and marketing of the product, and training on the packaging of the processed produce. 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. Large Cardamom needs to be pushed aggressively within this brand, (which is not seen much now), and also independently, promoting the strengths of Nagaland's large cardamom.
Cluster	Though there is enough scope for Large cardamom processing in the district as processors wish to expand their unit with financial assistance, there is a lack of formal cluster for large cardamom processors. There should be a formal cluster that will bring together all household, small, and micro-processing units from different districts under one cluster.

Rating of Response Count (Based on Primary Survey)

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

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	15	7	0	0	0	0	22
2	Access to common facilities such as grading, sorting, packaging, cold chain facilities, etc.	17	5	0	0	0	0	22
3	Access to testing facilities	14	7	1	0	0	0	22
4	Compliance with standards and the frequency of inspections from the safety regulators	15	5	2	0	0	0	22
5	Skill training needs	11	5	2	4	0	0	22
6	Manufacturing practices	17	3	1	1	0	0	22
7	Technologies Available	20	2	0	0	0	0	22
8	Access to finance	18	2	2	0	0	0	22
9	Access to mentorship/ service	17	5	0	0	0	0	22
10	Awareness of Govt Policies among micro /small manufactures	18	4	0	0	0	0	22
11	Awareness of ODOP products in the District	21	1	0	0	0	0	22
12	Marketing/sales facilities	17	3	2	0	0	0	22
13	Facilities for the workers	16	4	1	1	0	0	22

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

Access to common facilities such as grading, sorting, packaging, cold chain facilities, etc – Facilities like the warehouse is not available

Access to testing facilities – The majority of respondents mentioned there is a 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 to 2 scales by the majority of respondents, means there is a need for training for the workers engaged in cardamom processing

Technologies Available – Lack of technology & 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 & 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 not aware of ODOP in the district.

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

7. Recommendations

7.1 Vision Statement and Key objectives for SLUP

Vision Statement: To increase the quantity of cardamom processing from the existing below 1% 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 cardamom 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.

Context of ODOP Processing (Large Cardamom)

As part of our primary survey, we have interviewed the above 22 units, whose primary activity is large cardamom production and processing, packing, and selling. The core business of active units is to dry the large cardamom and sell the product within the district to local retail shops, traders, and also directly to consumers.

Table 36: Proposed number of units

Particular interviews done		No. of respondents interviewed
ODOP-Large cardamom	Existing enterprises	22
ODOP and Non-ODOP	New/ Potential possible enterprises	124

Proposed fund allocation:

Total INR 24.8 Cr. fund is proposed in the Mon district for the upgradation of 125 existing and new units in the district. Among the total fund, INR 15.1 Cr. fund is proposed to upgrade the 114 individual units and 1.5 Cr. fund is proposed to upgrade the 11 groups in the district. It is proposed to establish one incubation center and one common infrastructure in the district. INR 1.3 Cr. and 0.13 Cr. fund is proposed for the branding and marketing and training and mentorship respectively.

Table 37: Proposed fund allocation for Mon District

Intervention	Target	Amount (Cr.)
Capital investment in plant and machinery (Individual units)	To upgrade and scale up in the production process for 114 Micro Units (The average fund required per unit is 13.25 lakh)	15.1
Capital investment in plant and machinery (Group units)	To upgrade and scale up the production process for 11 Groups (The average fund required per unit is 13.6 lakh)	1.5
Incubation center	One incubation center (IC) is proposed for the district. Cost per IC 2.75 Cr.	2.75
Common infrastructure	One common infrastructure facility (CIF) is proposed for the district. Cost for the CIF 4.0 Cr.	4
Branding and Marketing	Common Branding and Marketing for both Individual units and Groups	1.3
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)	0.13

Proposed government assistance under the SLUP:

Total INR 24.8 Cr. fund is proposed in the Mon district for the upgradation of 125 existing and new units in the district. INR 10.74 Cr. is expected government assistance under the SLUP from the total fund proposed for the upgradation of the existing and new units in the districts.

Table 38: Proposed subsidy under SLUP Initiative for Mon District

Intervention	Target No. of units	Project cost per unit (Lakhs)	Total Cost (Lakhs)	Subsidy per unit	Govt. assistance (Lakhs)
Capital Investment in Plant & Machinery (Individual units)	114	13.25	1510.5	35%	528.675
Capital Investment in Plant &Machinery (FPO/SHG/ Cooperatives)	11	13.6	149.6	35%	52.36
Common Infrastructure	1	400	400	35%	140
Incubation Cum Custom Hiring Centre	1	275	275	100%	275
Branding & Marketing (Total no. of	125	1.04	130	50%	65

Table 38: Proposed subsidy under SLUP Initiative for Mon District					
Intervention	Target No. of units	Project cost per unit (Lakhs)	Total Cost (Lakhs)	Subsidy per unit	Govt. assistance (Lakhs)
Units/group)					
Training & Mentorship (No. of the individual)	125	0.104	13	100%	13
Total			**2478.1**		**1074.04**

Individual existing (Existing and New units) – From the primary survey, (existing individual and potential units) it is observed that approximately 125 respondents are interested in the food processing sector in the district but unable to commence due to lack of funding and the handholding support from the organization.

Groups – There are no FPOs/ cooperatives for ODOP processing and SHGs in the district involved in the secondary processing of the cardamom crop in the district. Few SHGs are active in dry large cardamom product making. The fund is proposed for the groups in the district to purchase the new machinery, skill development, branding, and marketing of the produce.

Common infrastructure – Common infrastructure facilities like cold storage structures, warehouse facilities, and pack houses are essential for the processing enterprises (Primary processing and secondary processing)

A fund of 400 lakhs is proposed to establish the common facility center in the district.

Marketing and branding- None of the processing units in the district are selling the products through brand and there is no special marketing of the processed produce. All the units in the district are selling the products through the existing sales channel only.

A fund of 130 lakhs is proposed to create the brand and marketing for the processed products in the district.

Training and skill development- Through the primary survey, we observed that the majority of large cardamom producers are not involved in secondary processing activities and only they are involved in drying and packing dried large cardamom. Skill development training is essential in handling the machinery, and the standardized process of processing and packaging the produce.

A fund of 13 lakhs is proposed for the skill development of the employees working in the local food processing enterprises.

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 39: Strategy for integrated development		
Particulars	**Requirement**	**Supporting Department/Agencies**
Marketing	• Training and Skill Development on branding and marketing of the processed products and packing of the produce. • Qualitative and Quantitative testing of the produce	• DIC could conduct training on the branding and marketing of the processed product. • FSSAI should involve in the certification and licensing of the processing enterprises.
Infrastructure	• Common infrastructure for the primary processing (Sorting, grading, cold storage, and pack houses) and secondary processing for the processing enterprises in the district.	• Support from DIC, the state agriculture department and financial institutions is required for the establishment of the required infrastructure.
Employees	• Training on post-harvest management, standardized process of processing, and handling the machinery.	• DIC should train the workers in handling machinery. • Agriculture, Horticulture, and NRLM could train the workers on post-harvest management and processing technology.

7.4 Proposed Interventions

We have proposed a total fund of 24.8 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 1.3 cr. for the branding and marketing support for the group and individual units in the district.

Table 40: 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 125 enterprises in the district (Group and Individual units)	15.1
3	Common facilities	Proposed one common facility center and one incubation center in the Mon 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.	1.3

8. Key Impacts

Table 41: Key Impacts	
Particulars	**Impact**
Opportunity to increase processing activity	• Through support under the PMFME scheme, there is a possibility of an increase of 10 % to 15 % percentage of processing in the next three years
Employment	• Each unit will employ 4-5 members on average i.e. approximately 450-600 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 25%-35 %
Reduce waste	• Through processing and common infrastructure, farm-level waste might reduce to 5 % from current 10 %
Better Profits	• Micro Units can expect a 25 % increase in profits with Better market linkages and Branding
Better Price Realization	• An 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:

Detail List of FPOs for assessment under PM-PME in Mon District

Table 42: List of FPOs in the district

S. No	Name of the FPO	Location	Contact details	Total No. of Registered members	Produces/ Products manufactured
1	S/ Lokyi fruits & vegetables CS Ltd. NL/8384 Dt.25.04.16	Sheangheh, Tangten vill	897439056	30	**Juice Processing** a. Orange b. Pineapple
2	Longhoi farming CS Ltd., NL/8252 Dt. 16.11.15	Wangti village	Mannom Konyak 8974510067	25	**Pickle Processing** King Chilly
3	Manfei Agri & Allied CS Ltd., NL/5846 Dt. .5.08.2002	Chi village	9862628417	25	**Pickle Processing** Sophie (Bay Berry)
4	Progressive fruits & vegetable Grower Marketing CS Ltd., NL/8485 Dt. 11.07.16	Chonwetnyu village	Laokhat 7085859980	30	**Pickle Processing** Ginger & Chilly

Total Number of Cooperative Societies ss On 30.01.21.

Table 43: List of Cooperative societies 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 & Credit Coop. Federation Ltd.	1														1

Table 43: List of Cooperative societies in the district																
S .No	Type of Society	Kma	Dmp	Mkg	Tsg	Wka	Zbto	Phk	Mon	Peren	Kpre	Lglg	Mba	Pftr	Stk	Total
		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**
	Canteen C.S. Ltd.	-	-	1	-	-	-	-	-	-	-	-	-			**1**
	Education & 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**

Table 43: List of Cooperative societies in the district																
S .No	Type of Society	Kma	Dmp	Mkg	Tsg	Wka	Zbto	Phk	Mon	Peren	Kpre	Lglg	Mba	Pftr	Stk	Total
5	**Marketing C.S. Ltd.**	10	28	19	28	5	9	13	3	2	5	1	1			**124**
	Trading	-	-	1	-	-	-	-	-	-	-	-	-			**1**
6	**Weaving & 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 Mon District

Table 44: List of SHGs in the district:							
S. No	Name of The SHG	Location	Contact Details	Total No. of Registered Members	Produces/ Products Manufactures	Marketing Details Of Produce/Product	The scale of Production (In MT)
1	Orchid SHG	Sangnyu	8414041011	8	King Chilli Pickle	Local Market	15
					Papaya Candy	Local Market	15
					Ginger Candy	Local Market	15
2	Hahpang SHG	Leangnyu	9366892784	11	Chilli Pickle	Local Market	20
					Bay Berry	Local Market	35
3	Lai-O SHG	Goching	8731817233	8	Mango	Local Market	20
					Goose Berry Dried	Local Market	15
4	Hoayang Khong	Chi	8732093210	8	Mango	Local Market	20
					Lemon & Chilli Pickle	Local Market	15
					Goose Berry Dried	Local Market	25
5	Tanti	Chi	9612883491	12	Namkeen	Local Market	50
6	Peishei	Lampong Sheanghah	9366561473	11	King Chilli Pickle	Local Market	20
7	Chingchung	Kampong Sheanghah	9366565569	14	King Chilli	Local Market	15
					Gooseberry Pickle	Local Market	30
						Local Market	
8	Mongyoung	Totok Chingha	7085130976	10	Gooseberry Dried Fruit.	Local Market	15
					Bamboo shoot	Local Market	50
					Mango Pickle	Local Market	25
9	Langha Kah	Totok Chingha	7627942462	10	Gooseberry Pickle	Local Market	25
					King Chilli Pickle	Local Market	17

Table 44: List of SHGs in the district:							
S. No	Name of The SHG	Location	Contact Details	Total No. of Registered Members	Produces/ Products Manufactures	Marketing Details Of Produce/Product	The scale of Production (In MT)
10	Mongela	Tuimei	8974500323	10	Green Tea	Local Market	10
11	Longjentong	Pongkong	8974436805	11	King Chilli Pickle	Local Market	50
12	Jeetan SHG	Pongkong	8730955680	14	King Chilli.	Local Market	35
					Mango Pickle	Local Market	25
13	Shomlam	Yuching	8729829365	11	Dry Bamboo Shoot	Local Market	0.03
					King Chilli Pickle	Local Market	0.005
14	Young Gan	Sheanghah Tangten	8729804209	10	King Chilli Pickle	Local Market	0.003
15	Patsha	Tangnyu	8131806979	8	King Chilli Pickle	Local Market	0.003
16	Pathraho SHG	Choknyu	7085126984/ 6909932411	10	Bamboo Shoot Fermentation	Local Markets	0.05 Mt
					Soybean Fermentation		0.01 Mt
					Dried Fruits		0.005 Mt
17	Nokyong SHG	Chen Moho	8974406612/ 9612249628	15	Bamboo Shoot Fermentation	Local Markets	0.05 Mt
					Pickles		0.005 Mt
					Fermentation Of Wild Cucurbits		0.01 Mt
18	Namchong SHG	Chen Wetnyu	8416058743/ 9862593787	11	Bamboo Shoot Fermentation	Local Markets	0.05 Mt
					Soybean Fermentation		0.01 Mt
					Fermentation Of Wild Cucurbits		0.01 Mt
19	Chatfa	Chen Loisho	8731059595/	12	Bamboo Shoot	Local Markets	0.05 Mt

Table 44: List of SHGs in the district:							
S. No	Name of The SHG	Location	Contact Details	Total No. of Registered Members	Produces/ Products Manufactures	Marketing Details Of Produce/Product	The scale of Production (In MT)
	SHG		8413925610		Fermentation		
					Fermentation Of Wild Cucurbits		0.01 Mt
					Pickles		0.005 Mt
20	Shahphe t SHG	Wangti	8413983496/ 9615974915	12	Bamboo Shoot Fermentation	Local Markets	0.05 Mt
					Fermentation Of Wild Cucurbits		0.01 Mt
					Pickles		0.005 Mt
21	Kongya SHG	Chingkao Chingnyu	9612456061/ 8730967853	10	Bamboo Shoot Fermentation	Local Markets	0.05 Mt
					Soybean Fermentation		0.01 Mt
					Fermentation Of Wild Cucurbits		0.01 Mt
					Pickles		0.005 Mt
22	Watok SHG	Chingkao Chingha	8974450374/ 9612207614	9	Bamboo Shoot Fermentation	Local Markets	0.05 Mt
					Soyabean Fermentation		0.01 Mt
					Fermentation Of Wild Cucurbits		0.01 Mt
23	Lammei SHG	Chingkao Chingpong	7085104678/ 8732021028	8	Bamboo Shoot Fermentation	Local Markets	0.05 Mt
					Soybean Fermentation		0.01 Mt
					Fermentation Of Wild		0.01 Mt

Table 44: List of SHGs in the district:							
S. No	Name of The SHG	Location	Contact Details	Total No. of Registered Members	Produces/ Products Manufactures	Marketing Details Of Produce/Product	The scale of Production (In MT)
					Cucurbits		
24	Shelem	Chenloisho	9862936102/ 9612359970	10	Fermented Soybean	Local Market	0.04
					Bamboo Shoot Juice	Local Market	0.02
25	Palang Zulem	Chenloisho	9862954013/ 9612249313	8	Fermented Soybean	Local Market	0.06
					Bamboo Shoot Juice	Local Market	0.03
26	Wangto Zulem	Chenloisho	9862968554/ 8974989638	8	Fermented Soybean	Local Market	0.05
					Bamboo Shoot Juice	Local Market	0.04