Strategic Investment Plan (SIP)
Raising & Accelerating MSME Performance (RAMP) Punjab

Department of Industries & Commerce, Punjab

7th January 2024

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Abbreviations

AC	Additional Charge
ACP	Annual Credit Plan
BIS	Bureau of Indian Standards
BLEO	Block Level Extension Officer
CAD	Computer Aided Design
CEF	Community Enterprise Fund
CFC	Common Facility Centre
CGSSD	Credit Guarantee Scheme of Subordinate Debt
CGTMSE	Credit Guarantee Trust for Micro and Small enterprises
CIPET	Central Institute of Plastics Engineering & Technology
CLCSS	Credit Linked Capital Subsidy Scheme
CLF	Cluster Level Federation
CLU	Change of Land Use
CMERI	Central Mechanical Engineering Research Institute
CSIR	Council of Scientific & Industrial Research
DIC	District Industry Centers
DPR	Detailed Project Report
ECBC	Energy Conservation Building Code
ECLGS	Emergency Credit Line Guarantee Scheme
EPI	Export Preparedness Index
ERP	Enterprise Resource Planning
ESDM	Electronics System Design and Manufacturing
ESSA	Environmental and Social Systems Assessment
FCI	Fixed Capital Investment
FI	Financial Institutions
FIFA	Federation Internationale de Football Association
FM	Functional Managers

GeM	Government e-Marketplace
GIS	Geographic Information System
GM	General Manager
GMO	Genetically Modified Organism
GVA	Gross Value Added
HQ	Headquarters
HSN	Harmonized System of Nomenclature
HUD	Housing and Urban Development
ICT	Information and Communication Technology
IDP	Interest of Delayed Payments
ILAC	International Laboratory Accreditation Cooperation
IPR	Intellectual Property Rights
ISO	International Organization for Standardization
IT	Information and Technology
ITI	Industrial Training Institutes
ITR	Inventory turnover ratio
KPI	Key Performance Indicator
LEADS	Logistics Ease Across Different States
LMS	Learning Management System
M&E	Monitoring and Evaluation
MNRE	Ministry of New and Renewable Energy
MoMSME	Ministry of Micro, Small, and Medium Enterprises
MSEFC	Micro and Small Enterprises Facilitation Council
MSME	Micro, Small, and Medium Enterprises
MSMED	Micro, Small and Medium Enterprises Development Act
NABL	National Accreditation Board for Testing and Calibration Laboratories
NATS	National Apprenticeship Training Scheme
NIC	National Industrial Classification
NRSE	New and Renewable Sources of Energy Policy

NSE	National Stock Exchange
NSIC	National Small Industries Corporation
NSS	National Sample Survey
NTREES	SIDBI-NSE Trade Receivable E-discounting Engine
ODOP	One District One Product
ODR	Online Dispute Resolution
OS	Operating System
PAH	Polycyclic Aromatic Hydrocarbons
PEDA	Punjab Energy Development Agency
PFI	Participating Financial Institutions
PIU	Policy Implementation Unit
PLI	Production Linked Incentive Scheme
PM	Particulate Matter
PMIDC	Punjab Municipal Infrastructure Development Company
PPE	Personal Protective Equipment
PSIDC	Punjab State Industrial Development Corporation
PSIEC	Punjab State Industries and Export Corporation
PSPCL	Punjab State Power Corporation Limited
PSU	Public Sector Undertakings
PV	Photovoltaic
QMC	Quality Marking Centres
QMC	Quality Marking Centres
QMS	Quality Management Standards
QMT	Quality Technology Tools
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Analysis Lab
RECP	Resource Efficient and Cleaner Production
RECP	Resource Efficient and Cleaner Production
RG	Recreation Ground
RoHS	Restriction of Hazardous Substances

SAP	Systems Applications and Products
SDI	Skill Development Initiative
SFC	State Facilitation Councils
SFURTI	Scheme of Fund for Regeneration of Traditional Industries
SHG	Self Help Groups
SIDBI	Small Industries Development Bank of India
SIPO	Senior Industrial Promotion Officer
SITD	State Industrial Training Department
SJVN	Satluj Jal Vidyut Nigam
SMILE	SIDBI Make in India Loan for Enterprises
SRPC	State RAMP Programme Committee
SVEP	Startup Village Entrepreneurship Programme
T&D	Transmission & Distribution
TEQUP	Technology and Quality Upgradation Scheme
TReDS	Trade Receivables electronic Discounting System
TSS	Technology Support Services
UAN	Udyog Aadhaar Memorandum
UR	Udyam Registration
VO	Village level Organization
VR	Virtual Reality
VTP	Vocational Training Providers
WPR	Work Participation Rate
ZED	Zero Effect Zero Defect

SECTION 1

Introduction to MSME Sector in India

Section 1: Introduction to MSME Sector in India

Micro, Small & Medium Enterprises (MSMEs) have been contributing significantly to the expansion of entrepreneurial endeavours through business innovations. They are widening their domain across various sectors, producing diverse range of products and services to meet growing demand of domestic as well as global markets. MSMEs in India are playing a crucial role by providing large employment opportunities at lower capital cost as well as through industrialization of rural & backward areas[1], inter alia, reducing regional imbalances, leading to more equitable distribution of national income and wealth.

Micro sector with 630.52 lakh estimated enterprises accounts for more than 99% of the total estimated number of MSMEs. The small sector with 3.31 lakh and medium sector with 0.05 lakh estimated MSMEs accounted for 0.52% and 0.01% of total estimated MSMEs, respectively. Out of 633.88 lakh estimated number of MSMEs, 324.88 lakh MSMEs (51.25%) are in rural areas and 309 lakh MSMEs (48.75%) are in the urban areas. Table 1 shows the distribution of enterprises in rural and urban Areas.

Table 1 Distribution of Enterprises Category Wise (2022-2023)

Sector	Micro	Small	Medium	Total
Rural	324.09	0.78	0.01	324.88
Urban	306.43	2.53	0.04	309.00
All	630.52	3.31	0.05	633.88
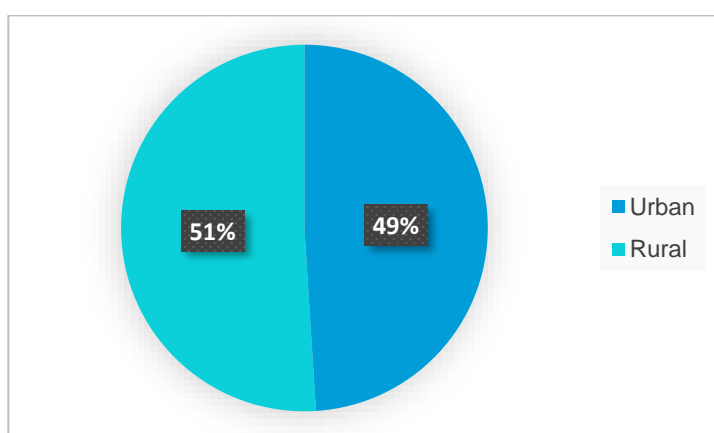
Data Source: MSME Annual Report 2022-23

Figure 1 Percentage share of rural and urban MSMEs in the country

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[1] https://msme.gov.in/sites/default/files/MSMEANNUALREPORT2022-23ENGLISH.pdf

1.1 Estimated number of MSMEs in country

As per the National Sample Survey (NSS) 73rd round, conducted by National Sample Survey Office, Ministry of Statistics & Programme Implementation during the period 2015-16, there were 633.88 lakh unincorporated non-agriculture MSMEs in the country engaged in various economic activities (196.65 lakh in Manufacturing, 0.03 lakh in Non-captive Electricity Generation and Transmission , 230.35 lakh in Trade and 206.85 lakh in Other Services) excluding those MSMEs registered under (a)Sections 2m(i) and 2m(ii) of the Factories Act, 1948, (b)Companies Act, 1956 and (c) construction activities falling under Section F of National Industrial Classification (NIC) 2008. Table 2shows the distribution of MSMEs activity wise.

Table 2 Distribution of MSMEs activity wise

Activity Category	Estimated Number of Enterprises (in lakh)		
	Rural	Urban	Total
(1)	(2)	(3)	(4)
Manufacturing	114.14	82.50	196.65
Electricity	0.03	0.01	0.03
Trade	108.71	121.64	230.35
Other Services	102.00	104.85	206.85
All	324.88	309.00	633.88
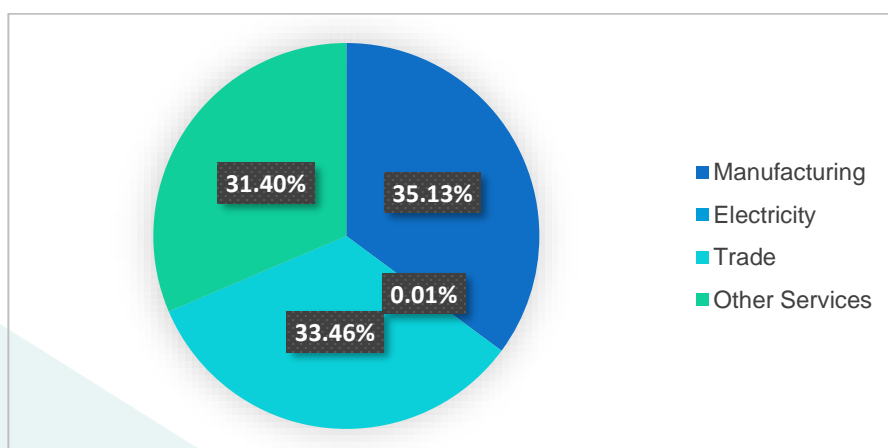
Data Source: MSME Annual Report 2022-23

Figure 2 Percentage-wise Distributions of Estimated MSMEs (Nature of Activity Wise)

1.2 Type of Ownership of Enterprises

As per the National Sample Survey (NSS) 73rd round out of 633.88 lakh MSMEs, 608.41 lakh (95.98%) MSMEs were proprietary concerns. There was dominance of male in ownership of proprietary MSMEs. Thus, for proprietary MSMEs, there are male owned 79.63% enterprises as compared to 20.37% enterprises owned by female. There was no significant deviation in this pattern in urban and rural areas, although the dominance of male owned enterprises was slightly more pronounced in urban areas compared to rural areas (81.58% as compared to 77.76%).

Table 3 Percentage Distribution of Enterprises in rural and urban areas (Category – Male/Female ownership).

Sector	Male	Female
Rural	77.76 %	22.24 %
Urban	81.58 %	18.42 %
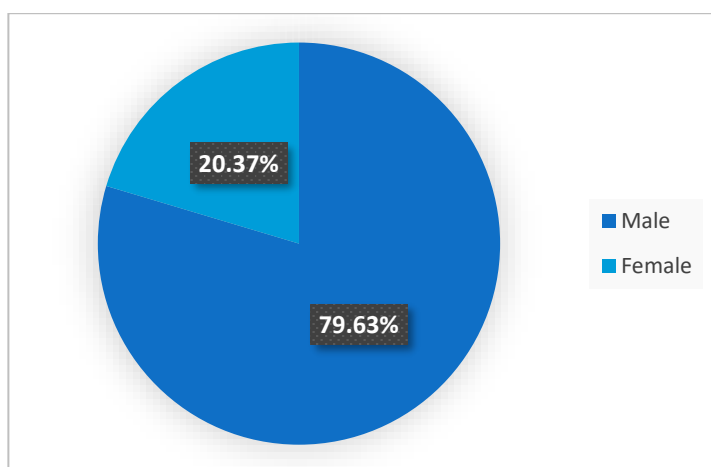
Figure 1 Enterprise distribution in rural and urban areas (Category – Male/Female ownership)
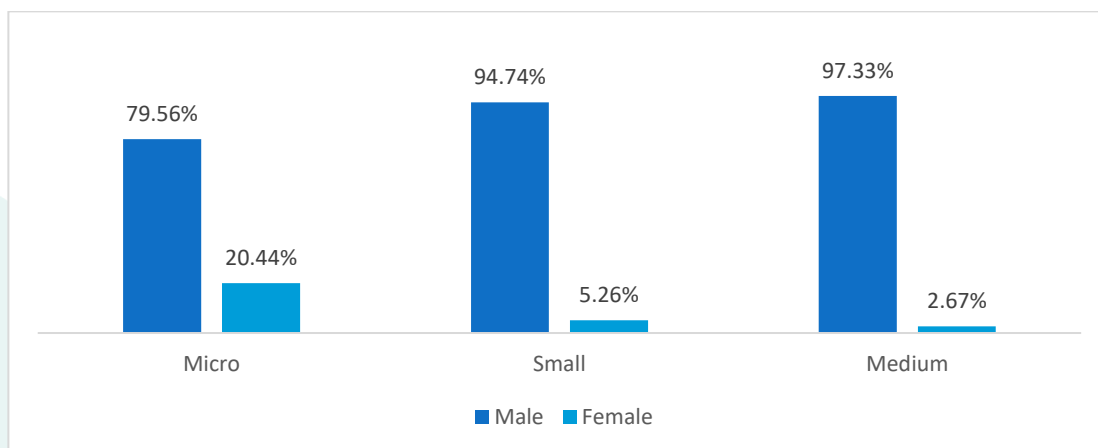
Figure 2 Enterprise distribution gender-wise

1.3 Ownership of Enterprises Social Category Wise

The socially backward groups owned almost 66.27% of MSMEs. Bulk of that was owned by OBCs (49.72%). The representation of SC and ST owners in MSME sector was low at 12.45% and 4.10% respectively. In rural areas, almost 73.67% of MSMEs were owned by socially backward groups, out of which 51.59% belonged to the OBCs. In urban areas, almost 58.68% belonged to the socially backward groups, of which 47.80% belonged to the OBCs.

Table 5 Percentage Distribution of enterprises by social group of owners in rural and urban Areas (2022-23)

Sector	SC	ST	OBC	Others	Not known
Rural	15.37	6.70	51.59	25.62	0.72
Urban	9.45	1.43	47.80	40.46	0.86
All	12.45	4.10	49.72	32.95	0.79
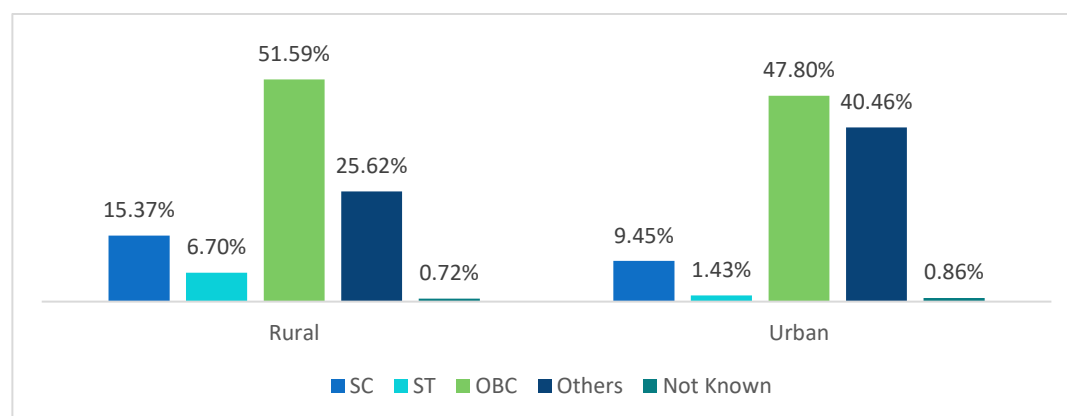
Figure 3 Percentage Distribution of enterprises in Rural/ Urban areas (Social Category wise)

The analysis of enterprises owned by socially backward groups in each of the three segments of MSME sector reveals that micro sector had 66.42% of enterprises owned by socially backward group, whereas small and medium sectors had 36.80% and 24.94% of enterprises owned by socially backward groups, respectively.

Table 6. Percentage Distribution of Enterprises Social Category Wise

Sector	SC	ST	OBC	Others	Not known
Micro	12.48	4.11	49.83	32.79	0.79

Small	5.50	1.65	29.64	62.82	0.39
Medium	0.00	1.09	23.85	70.80	4.27
All	12.45	4.10	49.72	32.95	0.79
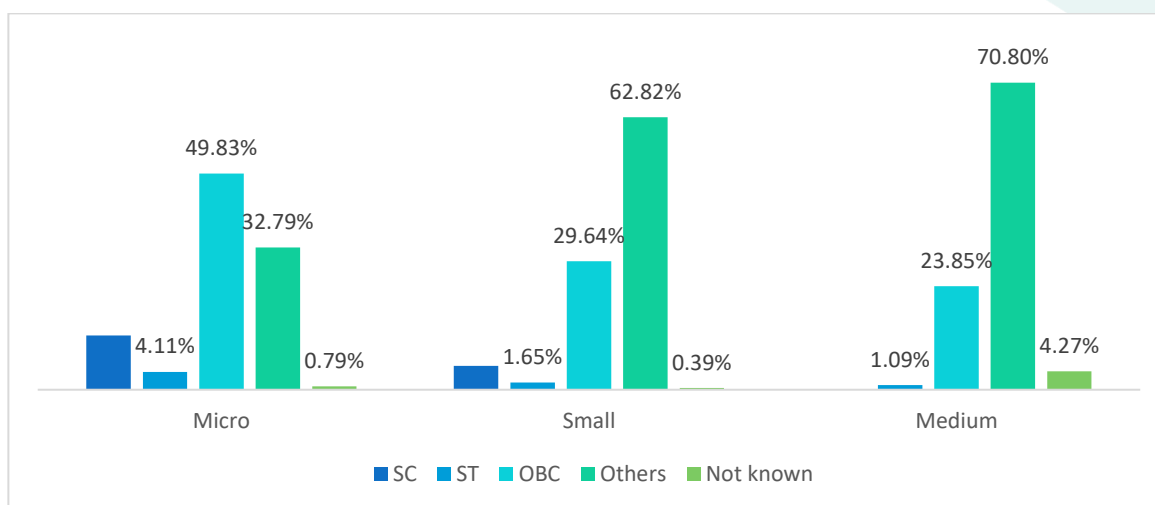
Figure 4 Percentage Distribution of type of Enterprises by Social Group of the Owner and category

1.4 State-wise Distribution of MSMEs

As per the survey NSS 73rd Round, 2015-16, the estimated number of MSMEs in the country were about 633.88 lakh and the top states with highest number of MSMEs were Uttar Pradesh, West Bengal, Tamil Nadu, Maharashtra, and Karnataka. The state-wise distribution of the MSMEs as per the survey is provided below:

Table 7 State-wise Distribution of MSMEs as per NSS 73rd Round, 2015-16

Sl. No.	State/UT Name	MSME (In lakhs)
1	Uttar Pradesh	89.99
2	West Bengal	88.67
3	Tamil Nadu	49.48
4	Maharashtra	47.78
5	Karnataka	38.34
6	Bihar	34.46
7	Andhra Pradesh	33.87
8	Gujarat	33.16
9	Rajasthan	26.87
10	Madhya Pradesh	26.74
11	Telangana	26.05
12	Kerala	23.79
13	Odisha	19.84
14	Jharkhand	15.88
15	Punjab	14.65

16	Assam	12.14
17	Haryana	9.70
18	Delhi	9.36
19	Chhattisgarh	8.48
20	Jammu & Kashmir	7.09
21	Uttarakhand	4.17
22	Himachal Pradesh	3.92
23	Tripura	2.11
24	Manipur	1.80
25	Meghalaya	1.12
26	Puducherry	0.96
27	Nagaland	0.91
28	Goa	0.70
29	Chandigarh	0.56
30	Mizoram	0.35
31	Sikkim	0.26
32	Arunachal Pradesh	0.23
33	Andaman & Nicobar Islands	0.19
34	Dadra & Nagar Haveli	0.16
35	Daman & Diu	0.08
36	Lakshadweep	0.02
Total		**633.88**

1.5 Registration of New MSMEs

One of the critical indicators to assess the successful development of MSME Sector in an economy is the data on registration of the MSMEs. It depicts the conducive environment for starting a business and growth of the MSME sector in an economy, as well as demonstrating high morale of entrepreneurs towards participation in the macroeconomics of the economy. Before the MSMED Act of 2006, there was a system of registration of small-scale industrial units by the District Industries Centres (DICs). Subsequently, as per the provisions of the MSMED Act, 2006, MSMEs used to file Entrepreneurs Memorandum (Part-I) at DICs before starting an enterprise. After commencement of production, the entrepreneur concerned used to file Entrepreneurs Memorandum (Part-II) /[EM-II] which was further replaced by Udyog Aadhar Memorandum.

The Ministry of Micro, Small and Medium Enterprises has replaced the erstwhile process by 'Udyam' registration on a portal developed by the Ministry based on composite criteria of classification of MSMEs, notified vide Notification dated 26.06.2020. Now the existing and prospective entrepreneurs file their 'Udyam' Registration online on portal: https://udyamregistration.gov.in.

Table 8 MSME Registration on Udyam Portal 2023

Sl.No.	State/UT Name	Total Udyam (in lakh.)
1	Maharashtra	29.72
2	Tamil Nadu	16.83

3	Uttar Pradesh	13.905
4	Gujarat	12.31
5	Rajasthan	12.197
6	Bihar	6.72
7	Punjab	6.023
8	Haryana	5.58
9	West Bengal	5.495
10	Telangana	5.25
11	Andhra Pradesh	4.91
12	Delhi	4.278
13	Odisha	3.509
14	Jharkhand	2.85
15	Assam	2.42
16	Jammu And Kashmir	2.27
17	Chhattisgarh	2.25
18	Uttarakhand	1.565
19	Karnataka	0.939
20	Himachal Pradesh	0.93
21	Madhya Pradesh	0.762
22	Manipur	0.479
23	Kerala	0.391
24	Goa	0.32
25	Tripura	0.275
26	Chandigarh	0.269
27	Puducherry	0.252
28	Mizoram	0.135
29	Dadra & Nagar Haveli and Daman & Diu	0.13
30	Nagaland	0.126
31	Meghalaya	0.106
32	Andaman And Nicobar Islands	0.092
33	Arunachal Pradesh	0.076
34	Ladakh	0.071
35	Sikkim	0.057
36	Lakshadweep	0.006
Total		**143.49**
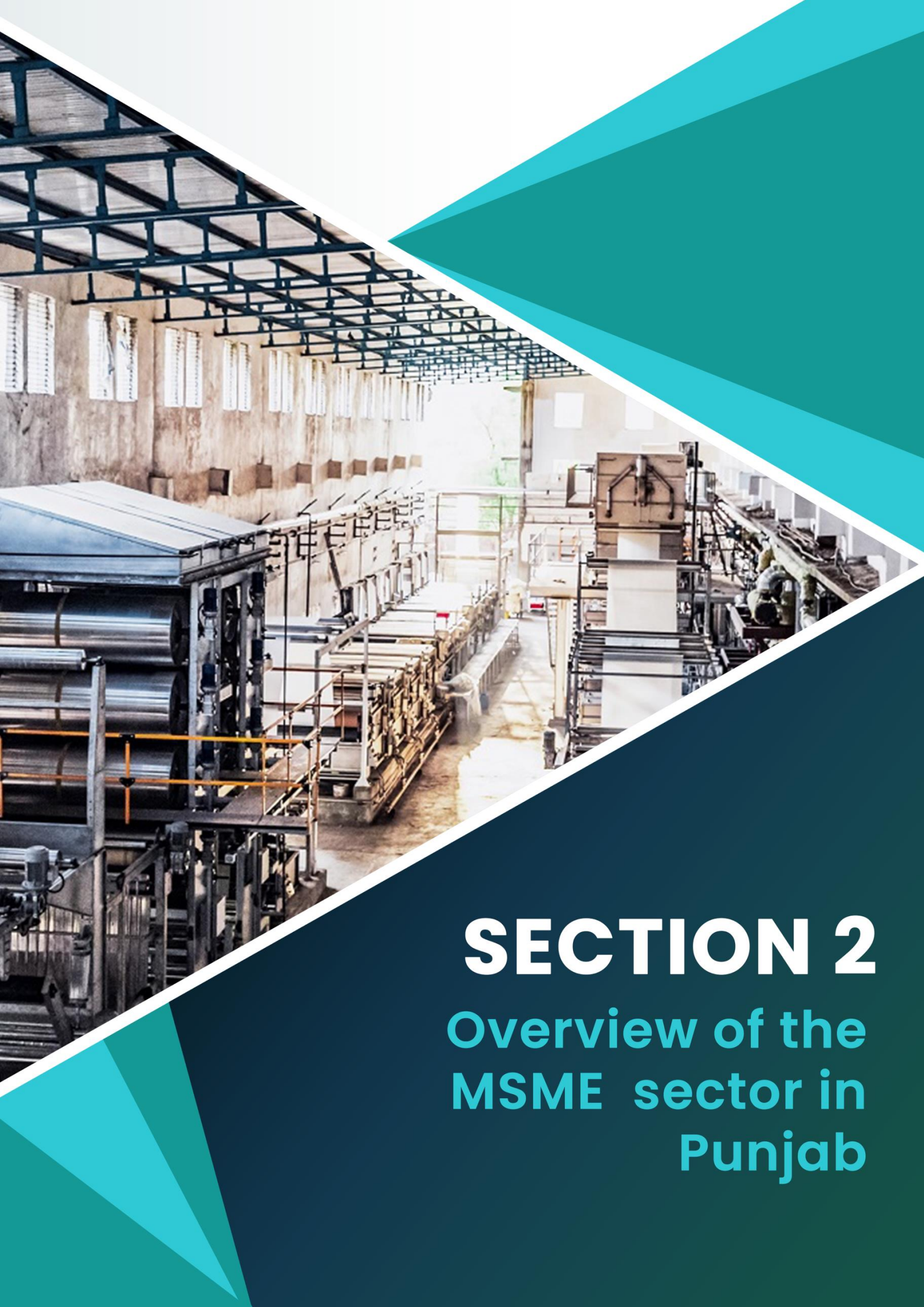
SECTION 2

Overview of the MSME sector in Punjab

Overview of the State of Punjab

Punjab's State Profile

Location

Punjab is a state in the northwest region of India and is one of the most prosperous states. Punjab extends from the latitudes 29.30° North to 32.32° North and longitudes 73.55° East to 76.50° East[2]. The state is bordered by the Indian states of Himachal Pradesh to the east, Haryana to the south and southeast, Rajasthan to the southwest and the Pakistani province of Punjab to the west. To the north it is bounded by the Indian state of Jammu and Kashmir. The state capital is in Chandigarh, a Union Territory and also the capital of the neighbouring state of Haryana.
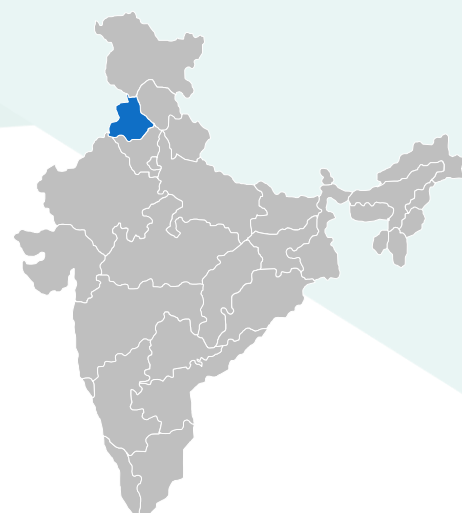
Geographical Area

The total area of the state is 50,362 square kilometres (19,445 square miles), out of which 48,265 square kilometres is rural area and 2,097 square kilometres is urban area, with the cultivable area being under assured irrigation. Its average elevation is 300 meters (980 ft) above sea level, with a range from 180 meters (590 ft) in the southwest to more than 500 meters (1,600 ft) around the northeast border.

Climate

The state has a balanced amalgamation of heat in summer, rain in monsoon and cold in winter. The three seasons are so distinctly distributed that each can be enjoyed individually. Punjab experiences both summer and winter to its extreme. It receives abundant rainfall, which makes the state a very fertile land. The region lying near the foothills of Himalayas receive heavy rainfall whereas the region lying at a distance from the hills, the rainfall is scanty, and the temperature is high.

The summer months span from mid-April to the end of June. The rainy season in Punjab is from early July to the end of September. October marks the beginning of the winter season. From December onwards, winter becomes chilly. Most of the major festivals of Punjab, like Lohri, Holla Mohalla, Diwali, and Dussehra, fall during this period.

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[2] https://punjab.gov.in

Soil

There are different classifications of soils of Punjab by different sources. The soils of Punjab have been classified into the following major types[3]:

- Flood Plain or Bet Soils
- Loamy Soils
- Sandy Soils
- Desert Soils
- Kandi Soils
- Sierozems
- Grey- Brown Podzolic & Forest Soils
- Sodic and Saline Soils

Language

Punjabi, the official language of the state, is the tenth most widely spoken language in the world. It is also the fourth most spoken language in Asia. It is the only living language among the Indo-European languages which is a fully tonal language. Punjabi is written in the Gurmukhi Script[4]. Besides Punjabi, Hindi, Urdu and the universally acclaimed English are the languages that are spoken in Punjab.

State Capital

Chandigarh is a union territory and serves as the capital for the states of Punjab and Haryana. It is one of the early planned cities in post-independence India. Picturesquely located at the foothills of Shivaliks, it is known as one of the best experiments in urban planning and modern architecture in the twentieth century in India. The dream city of India's first Prime Minister, Sh. Jawahar Lal Nehru, Chandigarh was planned by the famous French architect Le Corbusier.

The foundation stone of the city was laid in 1952. In March 1948, the Government of Punjab, in consultation with the Government of India, approved the area of the foothills of the Shivaliks as the site for the new capital. The location of the city site was a part of the erstwhile Ambala district as per the 1892-93 gazetteer of District Ambala. Subsequently, at the time of reorganization of the state on 01.11.1966 into Punjab, Haryana and Himachal Pradesh, the city assumed the unique distinction of being the capital city of both Punjab and Haryana while it itself was declared as a Union Territory and under the direct control of the Central Government.

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[3] https://msmedildh.gov.in/State%20Profile%20of%20Punjab.pdf

[4] https://punjab.gov.in

Cities and Towns

There are 23 Districts and a total 237 towns (or say cities) in Punjab which include 168 statutory towns and 69 census towns[5]. Major cities of Punjab are Mohali, Ludhiana, Amritsar, Patiala, and Jalandhar.

One of the world's first and oldest civilizations, the Indus Valley Civilization spanned much of the Punjab region, with cities such as Harappa and Mohenjodaro now located in the modern-day Pakistani province of Punjab.

Population

The total population of the state, as per census 2011 is 277.43 lakh[6], out of which the rural population accounts for 173.44 lakh and urban population accounts for 103.99 lakh. The percentage of rural to total population is 62.52% and the percentage of urban to total population is 37.48%. The population density per square kilometre is 551.

The total number of literate and educated people in Punjab is 187 lakh which makes up a literacy rate of 75.8%. Number of literate females per 1000 males is 895.

The total number of workers in the state is 98.97 lakh, out of which 84.51 lakh are main workers and 14.46 lakh are marginal workers. There are currently 178.46 lakh people who are not a part of the workforce in the state.

Economic Profile

Punjab is one of the prominent northern agrarian states of India. Its contribution to agriculture and Indian economy has been remarkable and it has made India self-reliant in food. Punjab is the food bowl of India. With 1.53% of the country's area, Punjab contributed 21.18% of rice and 30.50% of wheat in central food grains of the nation during 2021-22[7]. The State of Punjab has been the trendsetter in terms of agriculture development and the pioneer of Green Revolution in India. Apart from being the producer of the best quality of cotton, wheat and rice in India, Punjab also houses some major industries such as Cycle, Sports Goods and Hosiery etc. The State achieved the target of 100% electrification in 1976[8] and has made large investments in providing basic infrastructure like roads, safe drinking water, school education and health to its citizens much ahead of the other states. This has provided the requisite impetus for high growth in the state.

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[5] https://punjab.gov.in
[6] https://punjabassembly.nic.in/images/docs/Statistical%20Abstract.pdf
[7] Economic Survey of Punjab 2022-23
[8] https://finance.punjab.gov.in/PunjabGlance/Index
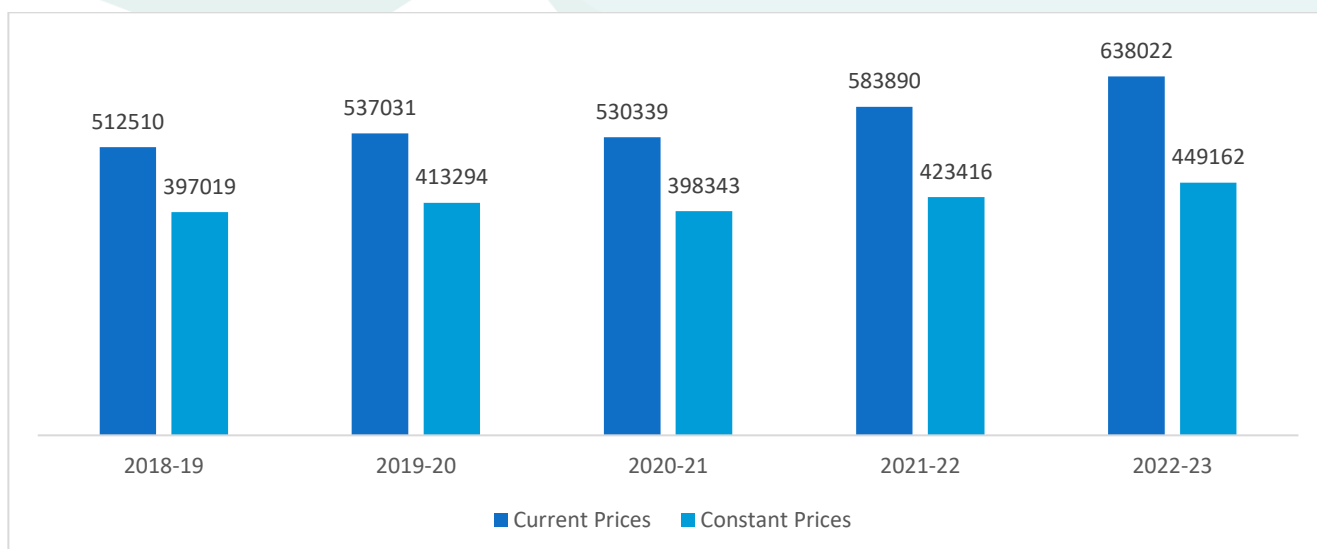
Figure 5 GDP of Punjab (In INR Crore)
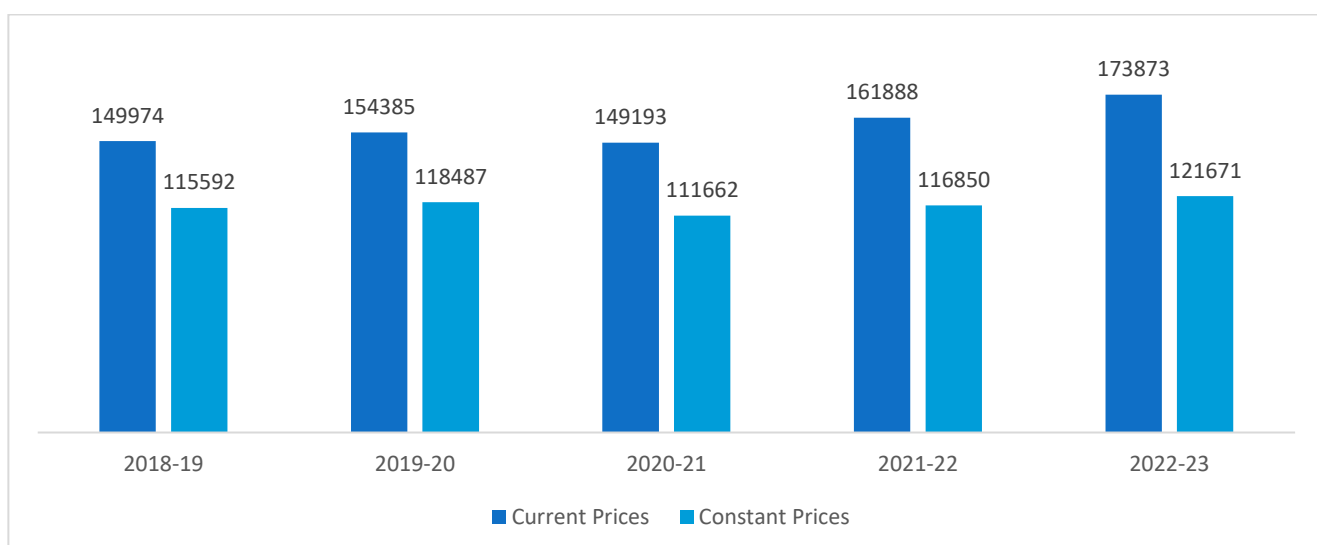
Figure 6 Per Capita income of Punjab (in INR)

Agriculture

The total cultivable area of the State is 4.2 million hectares as per the census report, which constitutes only 3% of the net area sown in the country[9]. Yet, with this small area, Punjab ranks 7th as gross producer of wheat in the world, and it generates the third largest marketable surplus after Canada and Australia, which is about one tenth of the global trade in wheat. In the case of rice, its market surplus is 2nd only to Thailand at the global level. Despite a decline in the share of agriculture in the aggregate GSVA of the State, its share in employment is by far the highest. Agriculture is still the dominant source of livelihood for the people of the State. More than 50% of the rural population is still dependent upon agriculture for its livelihood and employment. However, over the years, agriculture yield has stagnated in the State while cost of cultivation has increased significantly. Instead of crop

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[9] https://finance.punjab.gov.in/PunjabGlance/Index

diversification, wheat and rice cropping pattern is spreading across the State which in turn has impacted agriculture yield significantly.

Industry

Punjab ranks number one in MSME registrations in north India on Udyam portal highlighting the increase in formalization of MSMEs in the state. The Industrial sector constitutes around 25% of the Gross State Value Added (GSVA) with expected growth of 4% in 2022-23, with manufacturing as the leading sub-sector with nearly 15% contribution of total GSVA. The industrial GSVA growth in Punjab is in line with industrial sector growth at all India level. The industrial sector at all India level registered an average growth in GVA of 4.9% while Punjab registered a growth of 4.7%[10].[11]. The focus on agriculture sector has led to ancillary industries like food processing and textiles to come up in Punjab. The state, today, is a leading producer of apparels, woolen knitwear, and sports good. Further, hand tools, machine tools, light engineering (production of bicycles and auto parts) are an important industry in Punjab. Efforts of the State government to set up various textile parks and light engineering parks are expected to revive the growth of industries in the state.

Punjab contributes 75% to India's bicycle production and 80% to India's bicycle component manufacturing, making it the largest bicycle and its components manufacturing State of the country. Punjab is the leading manufacturer of Hosiery/Woolen goods which contribute 65% to India's manufacturing of similar goods.

Services

The Services sector contributes the largest share to Punjab's GSVA and is also the fastest growing sector. The sector has consistently contributed a share of over 46% of the State's GSVA and witnessed a growth over 7.1% over the eight-year period between 2012-13 and 2019-20. In 2020-21 the sector contracted at 4.8%, showing a negative growth in Services sector due to Covid-19. Advance estimates for 2022-23 indicated that the sector would continue to contribute a share of over 45.9% and a growth of 6.8%. Major contributors to the services sector are financial services, trade and repair services, tourism, real estate, hotels and restaurant, transport, storage, and communication in addition to other services.

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[10] Economic Survey of Punjab 2022-23
[11] https://finance.punjab.gov.in/PunjabGlance/Index

Power

The estimated demand for electricity has been consistently growing in the State and Punjab has been able to meet the increasing demand for power. As of 2021-22, demand of electricity was 62,850 million Units (MU) as against 58,450 MU in 2020-21. Despite fluctuations in electricity generation, the availability of electricity has been at par with the demand for electricity. 59% of the power consumption is in the agricultural and industrial sector and around 30% is domestic consumption. As of 2022, majority of the installed capacity in the state comes from thermal sources i.e., about 62% and the remaining comes from renewables and clean power sources, such as nuclear, hydro, solar, wind etc. Of the total installed capacity, 21% is owned by the Government of Punjab, 46% is privately owned and 33% is Centrally owned[12].

Connectivity

Punjab has 100% road connectivity and with a road density of 133 per square kilometre, the State is ranked 2nd in the country[13]. The State has a rail density of 49 kilometres per 1000 square kilometres, which is better than the national rail density of 20 kilometres per 1000 square kilometres. In terms of air connectivity, the State has two international and four domestic airports which provide ease of connectivity to major destinations within and outside India.
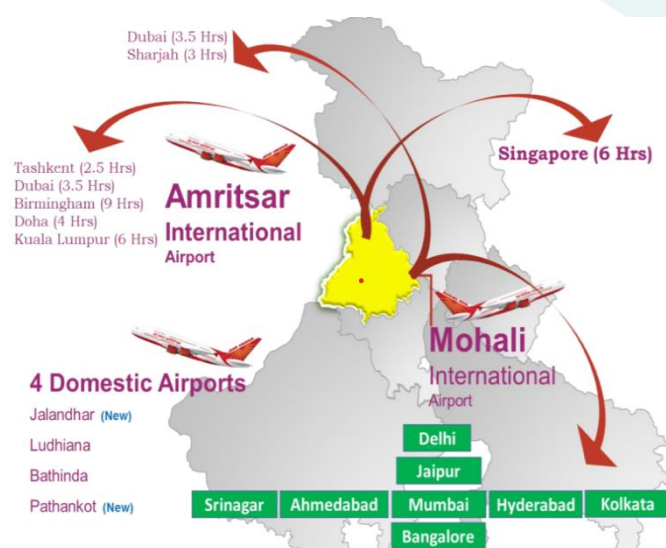
Logistics

As per the Government of India report on logistics, Punjab is ranked 3rd in Logistics Ease Across Different States (LEADS) Index 2021[14] and attained 'Achievers' Category in LEADS Index 2022[15], on account of various parameters, namely, infrastructure, service, timeliness, safety & tracking and competitive pricing.

Exports

Punjab is ranked 10th in the overall ranking and 4th in the Landlocked category in the Export Preparedness Index 2022. The state demonstrates strong institutional framework, export infrastructure and policy support for exporters. The state's exports stood at INR 52,852 Cr in 2022-23 with top

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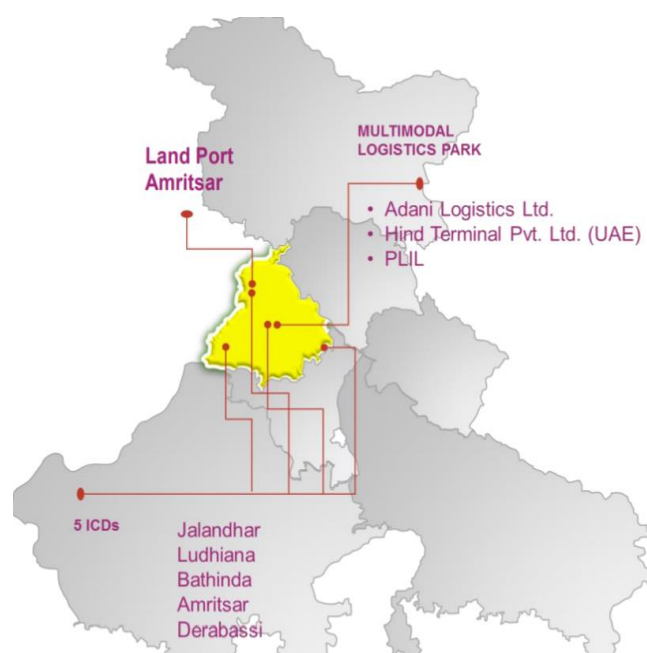
[12] Economic Survey of Punjab 2022-23, Central Electricity Authority, India
[13] https://finance.punjab.gov.in/PunjabGlance/Index
[14] https://finance.punjab.gov.in/PunjabGlance/Index
[15] MoCI LEADS 2022 Report

products exported by value as basmati rice, products of iron and steel, industrial machinery, cotton yarn and auto components. The top export destinations included USA, UAE, Bangladesh, Saudi Arab and UK. Government of Punjab has prepared State Export Action Plan jointly with Government of India, an implementation guidebook which provides actionable insights on focus sectors, products, international markets and recommendations for with the aim to double the state's exports in next five years.

Section 2: RAMP Template: Overview of the MSME sector in the state

Over the period, there has been significant growth in the number of registered MSMEs in the state of Punjab. As per the data of Udyam Registrations published by Ministry of Micro, Small and Medium Enterprises, Punjab accounts for 6,02,372 registrations i.e., 4.2% of the total 143.49 lakh registrations across all states and UTs. A summary of total number of MSMEs registered in Punjab over the years and the growth rate year-on-year is provided below:

Table 9: Growth of registered MSMEs in Punjab

Year	No. of registered MSMEs	Growth rate (%)
2016-17[16]	0.20	-
2017-18	0.29	38.43%
2018-19	0.59	106.02%
2019-20	0.63	6.29%*
2020-21[17]	1.00	58.45%
2021-22	1.82	81.13%
2022-23[18]	6.02	230.76%

The sudden decline in the growth of registered MSMEs is due to the change in the registration process of MSME's.

Number and share of women headed MSMEs.

The total number of women MSMEs currently stand at 1,19,022 in the state of Punjab as of 2023. In the year 2022-23, there were a total of 58033 registered women MSMEs, an increase of almost 50% from the year 2021-22.

Below is the district-wise data for women MSMEs in Punjab: -

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[16] https://www.dcmsme.gov.in/uam_publication_2015-2018.pdf
[17] https://www.dcmsme.gov.in/UDYAM_Publication_with_tables_final20220622.pdf
[18] https://dashboard.msme.gov.in/Udyam_Statewise.aspx

Table 7: District-Wise date women MSME's

Sl. No.	District	2020-21	2021-22	2022-23	2023-24	Total (in lakhs)
1	Amritsar	1079	2410	5176	1720	0.10385
2	Barnala	221	454	1266	434	0.02375
3	Bathinda	650	1376	2535	806	0.05367
4	Faridkot	250	592	1448	454	0.02744
5	Fatehgarh Sahib	268	539	1031	350	0.02188
6	Fazilka	225	508	1070	336	0.02139
7	Ferozepur	248	609	1696	563	0.03116
8	Gurdaspur	312	790	2418	1078	0.04598
9	Hoshiarpur	562	1378	2748	763	0.05451
10	Jalandhar	1607	3474	6471	1734	0.13286
11	Kapurthala	429	1115	2162	629	0.04335
12	Ludhiana	2874	5092	8943	2693	.19602
13	Malerkotla	0	47	443	187	0.00677
14	Mansa	221	422	1047	400	0.02090
15	Moga	366	912	2207	863	0.04348
16	Pathankot	158	404	830	228	0.01620
17	Patiala	1021	2107	4626	1537	0.09291
18	Rupnagar	198	551	1043	297	0.02089
19	Sangrur	587	1124	2285	956	4952
20	Sas Nagar	1606	2957	4376	1183	10122
21	Shahid Bhagat Singh Nagar	267	731	1285	410	2693
22	Sri Muktsar Sahib	285	545	1328	502	0.02660
23	Tarn Taran	140	486	1599	669	0.02894
	Total: -	**13574**	**28623**	**58033**	**18792**	**1.19022**

Employment in MSME sector

The boost to the MSME sector is imperative to generate employment opportunities for the state of Punjab, especially for the vulnerable population.

The MSME sector in Punjab is a significant contributor to employment generation in the state, providing job opportunities to a substantial number of people.

Table 10: Annual Turnover MSME

Sector	Micro	Small	Medium
Annual Turnover	<Rs.5 crore	< Rs.50 crore	< Rs.250 crore

Table 11: Employment in MSME sector

Year	Number of MSMEs	Employment Number (in Lakhs)
2018-19	40,676	1.78
2019-20	41,980	1.78
2020-21	55,269	2.32
2021-22	57,181	2.41

Given that each, micro, small, and medium enterprise employs an average of 4 employees in their units, the district wise employment across MSME is detailed below. The details of micro, small and medium enterprises is as on date, obtained from the Udyam portal. [19]

Table 12: details of micro, small and medium enterprises, and employment

Sl.No	District Name	Total Udyam (In Lakhs)	Total Employment
1	Ludhiana	1.19373	477492
2	Jalandhar	0.60887	243548
3	Amritsar	0.48765	195060
4	Patiala	0.47680	190720
5	SAS Nagar	0.46546	186184
6	Bathinda	0.28283	113132
7	Sangrur	0.27058	108232
8	Hoshiarpur	0.24793	99172
9	Moga	0.19793	79172
10	Gurdaspur	0.19553	78212
11	Kapurthala	0.18430	73720

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[19] Punjab: 499 Msmes Shut Down In Hry Over 4 Yrs, 298 In Pb | Chandigarh News - Times of India (indiatimes.com)

12	Ferozepur	0.16008	64032
13	Sri Muktsar Sahib	0.14339	57356
14	Fazilka	0.14277	57108
15	Fatehgarh Sahib	0.12933	51732
16	Faridkot	0.12674	50696
17	Tarn Taran	0.12009	48036
18	Mansa	0.11929	47716
19	Barnala	0.11905	47620
20	Shahid Bhagat Singh Nagar	0.11727	46908
21	Rupnagar	0.11353	45412
22	Pathankot	0.09137	36548
23	Malerkotla	0.03278	13112
Total		**6.027**	**2410920**

Productivity Statistics

The annual turnover for micro, small and medium enterprises based on the official definition by Ministry of MSME is as follows:

Table 9: Annual turnover for MSMEs

Sector	Micro	Small	Medium
Annual Turnover	< Rs.5 crore	< Rs.50 crore	< Rs.250 crore

Production of Micro, Small and Medium Enterprises in Punjab

Table 13: Production of MSMEs in Punjab

Total Udyam	Micro	Production (In Cr.)	Small	Production (In Cr.)	Medium	Production (In Cr.)
602372	579192	1447980	21203	530075	1977	247125

The above-mentioned table depicts the production for each – micro, small, and medium enterprises as registered in the Udyam portal for Punjab. [20]

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[20] An average of 5 crore turnover has been taken for micro industries, 25 crores for small industries and 125 crores for medium industries to calculate the average production.

Exports and GVC linkages

According to data from the Directorate General of Commercial Intelligence & Statistics, the percentage of MSME exports in the total exports of the country was 42.67 percent as of August 2022[21]. Punjab contributed Rs. 52.85 thousand crore (1.45%) to India's exports in FY 2022-23. The state ranks 14th in the contribution to exports from India. The MSMEs of Punjab have established linkages in the global value chain by participating in exports. To further strengthen the global market linkages, Punjab Government has prepared State Export Action Plan which will act as an implementation guidebook providing district-wise actionable insights on focus sectors, products, international markets and recommendations to achieve the aim of doubling the state's exports in next five years. A snapshot of state's performance in exports is provided below:

The top 10 exporting countries from the state by export value are (FY 2022-23):

Sno	Country	Value (INR Thousand Crore)
1	USA	9.02
2	UAE	3.55
3	Bangladesh	3.33
4	Saudi Arabia	3.01
5	UK	2.63
6	Germany	1.66
7	Nepal	1.09
8	Brazil	1.04
9	Egypt	1.04
10	Canada	0.97

The top sectors contributing to 75% exports from the state of Punjab are – Agri and Food processing, Engineering Goods, Industrial Machinery and Agriculture Implements, Textiles, Auto and Auto components, Pharmaceuticals, Hand Tools and Machine/Power Tools, Bicycle, Paper, Sports Goods and Chemicals.[22]

The top 10 products exported from the state by export value are (FY 2022-23):

Sno	PC Description	Value (INR Thousand Crore)
1	Rice - Basmati	5.96
2	Products of Iron and Steel	5.83
3	Industrial Machinery for Dairy etc.	4.54
4	Cotton Yarn	3.59
5	Auto Components/Parts	3.07
6	Bulk Drugs, Drug Intermediates	2.82
7	Hand Tool, Cutting Tool of Metals	2.03
8	Cotton Fabrics, Madeups etc.	1.92
9	RMG Cotton including Accessories	1.66
10	RMG Manmade Fibres	1.25

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[21] DGCIS
[22] Analysis from DGCIS data

District-wise exports from Punjab by export value are (FY 2022-23):

Sno	District	Value (INR Crore)
1	Ludhiana	19,508.82
2	S.A.S Nagar	7,308.07
3	Jalandhar	6,115.72
4	Amritsar	3,267.15
5	Hoshiarpur	3,130.94
6	Sangrur	1,837.63
7	Barnala	1,687.67
8	Patiala	1,606.39
9	Shahid Bhagat Singh Nagar	1,347.77
10	Tarn Taran	1,246.62
11	Bathinda	1,223.13
12	Kapurthala	1,209.52
13	Ferozepur	920.93
14	Moga	756.80
15	Fazilka	644.17
16	Sri Muktsar Sahib	275.36
17	Gurdaspur	253.09
18	Fatehgarh Sahib	249.28
19	Rupnagar	200.30
20	Faridkot	30.02
21	Mansa	16.70
22	Pathankot	16.41

MSME clusters, geographical concentration, Aspirational districts, and clusters

An MSME cluster is a group of enterprises located within an identifiable and contiguous area and producing the same or similar products/services. The major objective of forming clusters is to provide support to micro and small businesses to compete with the national and international markets.

There are several MSME clusters in Punjab, which are geographical concentrations of small and medium enterprises specializing in certain sectors or products. Some of the significant MSME clusters in Punjab[23] are:

a) Ludhiana: Ludhiana is the largest industrial city in Punjab and is known for its MSME cluster in the textile and apparel sector. It is also a significant producer of bicycle parts, auto parts, and machine tools.

b) Jalandhar: Jalandhar is another significant industrial city in Punjab and has a well-established MSME cluster in the sports goods sector. The city is known for producing sports equipment, such as cricket bats, footballs, and hockey sticks.

c) Amritsar: Amritsar is a major commercial and industrial hub in Punjab and has a well-developed MSME cluster in the textiles and garments sector. The city is also known for its leather and handicrafts industries.

d) Mohali: Mohali is a rapidly developing city in Punjab and has a growing MSME cluster in the information technology and software development sectors.

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[23] https://pbindustries.gov.in/static/assets/docs/Industrial_Policy_2022.pdf

e) Patiala: Patiala is known for its MSME cluster in the handloom and handicrafts sector. The city is famous for producing traditional Punjabi clothing, such as phulkari and bandhani.

Given below is a brief overview of the key industrial clusters in Punjab, basis their geographical concentration. The state government has taken several initiatives to support and promote the growth of these clusters, such as providing infrastructure, marketing support, and skill development programs for MSMEs.
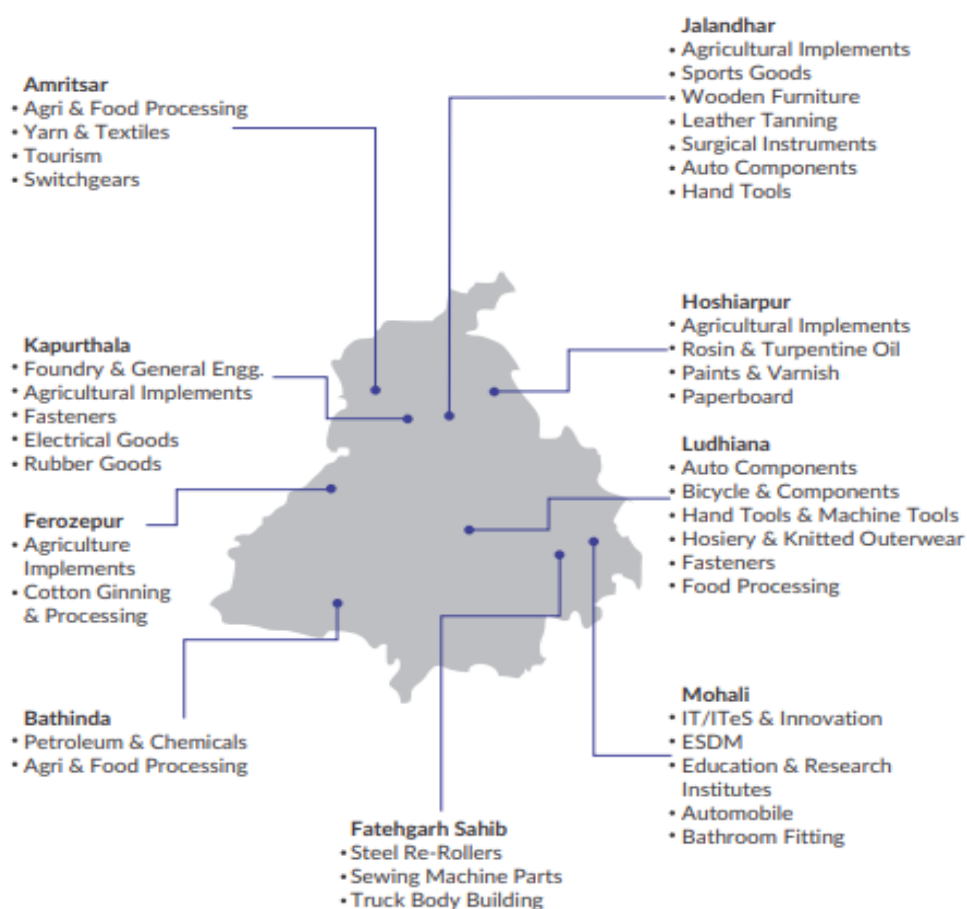
Figure 7 Key industrial clusters of Punjab

Below is an analysis and an overview of the top performing industry in each of the district in Punjab as on March 2019[24]

Amritsar

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Manufacturing of Food Products & Beverages	55218.51
24	Manufacturing of Chemical Products	35679.43

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[24] https://pbindustries.gov.in/static/assets/docs/N_14328_1620729878350.pdf

17	Manufacturing of Textile	29376.36
63	Supporting & Auxiliary Activities	26274.5
29	Manufacturing of Machinery & Equipment	26156.68

Barnala

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg. of Food Products Beverages	29206.45
29	Machinery & Equipment	6580
18	Mfg. of Wearing Apparels	4077.92
31	Electrical Machinery & Apparatus	2215.28
28	Fabricated Metal Products	2073.65

Bathinda

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg of Food Products & Beverages	37530.35
25	Mfg of Rubber & Plastic Products	32565.12
31	Mfg of Electrical Machinery & Apparatus N.E.C.	17658.52
17	Mfg of Textile Including Dyeing/Processing	7504.47
28	Mfg of Fabricated Metal Products Except Machinery & Equipment	6248.58

Faridkot

NIC Code No.	Type of Industry	Production (Rs Lakh)
18	Mfg of Hosiery & Garment Including Embroidery	17420.93
15	Mfg of Food Products & Beverages	17136.05
27	Mfg of Basic Metal	3908.88
26	Mfg of Other Non-Metallic Mineral Products	3360.35

| 31 | Mfg of Electrical Machinery & Apparatus N.E.C. | 2137.42 |

Fatehgarh Sahib

NIC Code No.	Type of Industry	Production (Rs Lakh)
27	Basic Metals	197492.00
15	Mfg. of Food Products Beverages	29175.00
37	Recycling	14411.00
29	Machinery & Equipments	9531.00
28	Fabricated Metal Products	4815.00

Fazilka

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg. of Food Products Beverages	584921
28	Fabricated Metal Products	4435
26	Other Non-Metallic Products	3875
24	Chemicals & Chemical Products	1840
20	Mfg. of Wood Products	1480

Gurdaspur

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg of Food Products & Beverages	85868.87
27	Mfg of Basic Metal	39429.92
29	Mfg of Machinery & Equipment N.E.C.	17819.88
26	Mfg of Other Non-Metallic Mineral Products	9952.31
28	Mfg of Fabricated Metal Products Except Machinery & Equipment	6684.55

Hoshiarpur

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg of Food products & Beverages	12539.77
28	Mfg of Fabricated metal products Except Machinery & Equipment	6293.00
52	Maintenance and repair of personal and household good	4205.35
24	Mfg of chemical and chemical products	3664.00
26	Mfg of other Non-Metallic Mineral products	3262.20

Jalandhar

NIC Code No.	Type of Industry	Production (Rs Lakh)
29	Machinery & Equipment	50583.79
27	Basic Metals	47143.98
15	Mfg. of Food Products Beverages	40342.45
36	Mfg. of Furniture Mfg. N.E.C	35283.32
19	Leather & Leather Products	29829.24

Kapurthala

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Manufacturing of Food Products & Beverages	16381.37
29	Manufacturing of Machinery & Equipments	8893.26
28	Manufacturing of Fabricated Metal Products Except M/C Equipments	6851.05
34	Manufacturing of Motor vehicles	4489.00
17	Manufacturing of Textile	3773.30

Mansa

NIC Code No.	Type of Industry	Production (Rs Lakh)

15	Mfg. of Food Products Beverages	13661.00
17	Mfg. of Textiles	7047.00
29	Machinery & Equipments	1133.00
25	Rubber & Plastic Products	1120.00
26	Other Non-Metallic Products	1073.00

Patiala

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg. of Food Products Beverages	43980.4529
27	Basic Metals	33686.57
25	Rubber & Plastic Products	29778.21
24	Chemicals & Chemical Products	28288.77
28	Fabricated Metal Products	26048.61

Rupnagar

NIC Code No.	Type of Industry	Production (Rs Lakh)
28	Fabricated Metal Products	29945.28
29	Machinery & Equipments	3290.18
15	Mfg. of Food Products Beverages	2753.89
21	Mfg. of Paper & Paper Products	1896.27
19	Leather & Leather Products	1713.12

Sangrur

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Food Products & Beverages	117193.48
24	Chemicals & Chem. Products	15060.65
29	Machinery & Equipments	14015.26
27	Manufacture of Basic Metals	12616.79
25	Rubber & Plastic Products	9821.71

SAS Nagar

NIC Code No.	Type of Industry	Production (Rs Lakh)
24	Chemicals & Chemical Products	24658.69
28	Fabricated Metal Products	12214.31
29	Machinery & Equipment	11682.90
15	Mfg. of Food Products Beverages	11571.61
27	Basic Metals	9923.47

SBS Nagar

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg of Food Products & Beverages	6731.31
63	Cold Store	815.50
21	Mfg of paper and paper products	692.50
24	Mfg of chemical and chemical products	574.00
52	Rep. of Elec. Goods.	524.60

Sri Muktsar Sahib

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg of Food Products & Beverages	36304.00
26	Mfg of Other Non-Metallic Mineral Products	6959.00
29	Mfg of Machinery & Equipment N.E.C.	3645.00
28	Mfg of Fabricated Metal Products Except Machinery & Equipment	2525.00
24	Mfg of Chemical & Chemical Products	2399.00

Tarn Taran

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg of Food Products & Beverages	5251.46

27	Mfg of Basic Metal	3653
29	Mfg of Machinery & Equipment N.E.C.	733.67
26	Mfg of Other Non-Metallic	379.4
21	Mfg of Paper & Paper	232.95

Major Products manufactured by MSMEs in Punjab, and major anchor buyers[25]

Name of the Products majorly produced by MSMEs in Punjab
1. Fine Blanking parts, interlocks, gear shifting shaft etc
2. Stamping, Pressing Components, Jack assemblies, pedal assemblies
3. Forged Components, turned components sheet, metal components
4. Crown wheel and pinion, transmission gears, axle shafts, synchro assembly
5. Trailer suspension & sub-assemblies, trailer axle, construction equipment parts
6. Aluminium castings, alloy wheel, auto chains etc
7. Rear axle shafts, spindles, splined shafts
8. Sheet metal, tubular fabricated assembles etc
9. Ductile and Grey iron castings
10. Leaf Springs and Spring Assembly
11. Precision machined components, heavy castings, threaded parts
12. Sub-miniature micro switches, power connectors, toggle switches etc
13. Automobile engine parts, steering system parts, breaking components etc
14. Auto components, engine parts, steeling components
15. Special gasses and its high purity mixtures

Major Brands/Anchor buyers for MSMEs in Punjab[26]

Honda	Dana Axles	Greaves	Carraro	Toyota	TVS
Hero	Rockman	Daimler	Kubota	Hyundai	Delphi
SML Isuzu	Eicher	Hindustan Motors	BMW	Fiat	Calsonic
KTM	CNH USA	Volvo	Harley Davidson	Mercedes Benz	Mitsubishi
Tata	Indian Railways	Denso	Royal Enfield	Mahindra Swaraj	Nissan
Maruti Suzuki	Ashok Leyland	Continental	Lear	DANA	Ford
Mahindra	Mahindra & Mahindra	Hendrickson	JCB	Vibracoustic	Renault

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[25] https://pbindustries.gov.in/static/assets/docs/Industrial_Policy_2022.pdf
[26] https://pbindustries.gov.in/static/assets/docs/Industrial_Policy_2022.pdf

New Holland	International Tractors	John Deere	AMW	Godrej	LG
Bosch Brazil	TVS Motor	Escorts	Terex	ABB	GM
Bosch China	Tafe Motors	Claas	Hino	APC	Rail Coach Factories

Aspirational Districts in Punjab and MSME Clusters

The Government of India has identified aspirational districts based on a composite index that assesses their relative backwardness in terms of important development metrics and parameters.

The two aspirational districts of Punjab are Moga and Ferozepur.[27]

Moga:

Moga District is the 17th District drawn on the map of Punjab State on 24th day of November 1995. Before this, Moga was the sub-division of Faridkot District. Moga town, the headquarters of the district is situated on Ferozepur-Ludhiana Road. Moga District falls under the jurisdiction of Ferozepur division. Its boundaries touch the boundaries of Jalandhar district in north, Ludhiana district in East, Sangrur in South and Faridkot & Ferozepur in West. It spreads over an area of 2230 km which comes to 4.42 % of the Punjab State.

MSMEs and Industries in Moga

There are 21,737 registered micro, small and medium units in this district. The combined employment number of all the industries is 79,172. Moga houses multiple industries and existing MSME units that are categorized as below:

Types of Industries in MSME in Moga:

Table 14: Type of Industries in Moga

NIC Code No.	Type of Industry	Production (Rs Lakh)
15	Mfg. of Food Products Beverages	71418.61
26	Other Non-Metallic Products	5390.13
29	Machinery & Equipment	4342.13
27	Basic Metals	1719.93
28	Fabricated Metal Products	1536.85
24	Chemicals & Chemical Products	1225.25
25	Rubber & Plastic Products	1149.7
63	Cold Storage	723.6
45	Construction	592.05

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[27] https://my.msme.gov.in/MyMsme/List_of_AspirationalDistricts.aspx

NIC Code No.	Type of Industry	Production (Rs Lakh)
36	Mfg. of Furniture Mfg. N.E.C	557
20	Mfg. of Wood Products	549.3
74	Other Business Activities	402.08
50	Maintenance & Repair of Motor Veh.	369.9
34	Motor Vehicles Trailers etc. & Parts	351.6
52	Maintenance & Repair Household	245.15
19	Leather & Leather Products	240.69
31	Electrical Machinery & Apparatus	163.7
32	Radio TV Communication Equip.	113.4
17	Mfg. of Textiles	104.84
23	Coke & Refined Petroleum Prod.	76
22	Printing / Publishing	65.6
21	Mfg. of Paper & Paper Products	58.6
18	Mfg. of Wearing Apparels	52.78
35	Mfg. of other Transport Equipment	34.15
55	Hotel & Restaurant	30.5
72	Computer & Relating Activities	29.3
85	Health & Social Work	18.6
30	Off, Account & Computing Machinery	15.9
93	Other Service Activities	11.7
64	Post & Telecommunication	8.8
33	Medical Precision & Optical etc.	2.74

Moga is an upcoming aspirational district as its strengths are agricultural implements hub, rice producing area and agricultural region. There are a lot of industrial opportunities in this district which could be beneficial for the MSME sector like development of industrial focal points for agricultural implements, infrastructural development, testing labs for rice etc. The only threats that the district faces are non-tariff barriers and market competition from other rice growing regions.

Ferozepur:

Ferozepur district is one of the important historical districts of the Punjab. The district comprises three tehsils/subdivisions, viz. Ferozepur in the middle, Zira on the east, Fazilka on the south-west. All-important places in the district are connected by rail or road. Almost 11 km from the Hussainiwala border on the west and 121 km from Ludhiana in the east lies the City of Ferozepur.

MSME and Industries in Ferozepur

There are 17,535 units of small, micro, and medium enterprises in the district that have provided employment to 64,032 persons. The types of industries housed in Ferozepur are as follows: -

Different types of industries in MSME sector:

Table 11: Type of Industries in MSME sector

NIC CODE NO.	Type of Industry	Production (Rs Lakh)
15	Mfg of Food Products & Beverages	42330.00
28	Mfg of Fabricated Metal Products Except Machinery & Equipment	3550.00
26	Mfg of Other Non-Metallic Mineral Products	2750.00
29	Mfg of Machinery & Equipment N.E.C.	1750.00
24	Mfg of Chemical & Chemical Products	1600.00
63	Cold Storage	450.00
36	Mfg of Furniture, Mfg Of N.E.C	425.00
20	Mfg of Wood Products	400.00
21	Mfg Of Paper & Paper Products	400.00
23	Mfg. of Coke, Refined Petroleum Products & Nuclear Fuel, Bottling of Lpg	250.00
31	Mfg of Electrical Machinery & Apparatus N.E.C.	250.00
52	Maintenance & Repair of Personal & Household Goods Nic 1998 Codes 52601 To 09	235.00
50	Maintenance & Repair of Motor Vehicle Nic 1998 Codes 50200 & 50404	200.00

NIC CODE NO.	Type of Industry	Production (Rs Lakh)
25	Mfg Of Rubber & Plastic Products	170.00
19	Leather & Leather Products	150.00
22	Publishing Printing & Reproduction of Recorded Media	150.00
27	Mfg Of Basic Metal	50.00
72	Computer & Related Activities	50.00
18	Mfg Of Hosiery & Garment Including Embroidery	25.00
85	Health & Social Works	25.00

The strengths that the district of Ferozepur have are its historical importance, good rail, and road connectivity in the district, huge arable land and it is a major Rice producing region of the state. Due to its strengths, there are also opportunities like industrial estate development and building a common water treatment plant for the district. However, there are some threats to the district as well: Border related issues and the competition from other rice growing areas especially basmati growing areas.

Access to credit for MSMEs

Access to credit is vital for the growth and development of Micro, Small, and Medium Enterprises (MSMEs) as it helps them to:

- **Invest in technology and infrastructure**:

MSMEs require capital to invest in technology, equipment, and infrastructure to improve their production processes and expand their operations. Access to credit enables MSMEs to make these investments, leading to improved efficiency, productivity, and competitiveness.

- **Hire and train employees**:

MSMEs need to hire and train employees to enhance their business operations. Access to credit enables MSMEs to fund employee salaries and training programs, leading to improved productivity and overall growth.

- **Expand their businesses**:

MSMEs need funds to expand their operations, enter new markets, and increase their customer base. Access to credit enables MSMEs to invest in marketing and advertising, expand their product lines, and explore new business opportunities.

- **Overcome cash flow challenges**:

MSMEs often face cash flow challenges due to delayed payments from customers or seasonal fluctuations in demand. Access to credit helps MSMEs to manage these challenges by providing funds to meet their working capital requirements and maintain their cash flow.

Credit Disbursement to MSMEs in India and Punjab

Total loan sanctioned to MSMEs in India stood at ₹37.29 trillion in FY22, an increase of roughly 5% over FY21 and 182% over FY20, as per a report by CRIF High Mark, a credit bureau. From ₹37.7 lakh in FY20 to ₹72.4 lakh in FY21-22, the average ticket size of MSME loans increased by 92%, as per the data on MSME loans.

Until 18th March 2022 loans worth over Rs 10,370 crore have been disbursed to 2.16 lakh MSMEs in Punjab under the Emergency Credit Line Guarantee Scheme (ECLGS).

The Credit Guarantee Scheme of Subordinate Debt (CGSSD) was availed by about 81 guarantees amounting to over Rs 8.26 crore in the state, informed MoS MSME Bhanu Pratap Singh Verma in Lok Sabha. Since the launch of ECLGS scheme in May 2020, there were a total of 2,18,294 bank accounts of MSMEs in Punjab eligible for the scheme.[28]

Under CGTMSE scheme of Government of India, the guaranteed coverage of Punjab was accounted at 23,172 as number of guarantees against which the total amount approved was 1661 crore.[29]

- **Amount sanctioned to MSMEs under Annual Credit Plan (ACP) 2022-2023 by banks during the quarter ended March 2023 for the State of Punjab:**
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Year on Year comparison of ACP Targets and Achievements for MSME Sector

Table 12: YoY comparison of ACP Targets and Achievements

Amt. in Rs. crore

Region	Years					
	2021-2022		2022-23 (Upto March 31, 2023)		2023-24	
	Targets	Achievement	Targets	Achievement	Targets	Achievement
Punjab	49,028	49,970	52,771	74,729	69,705	N/A

Source: Reserve Bank of India Financial Inclusion and Development Department, Chandigarh 2023

- **District Wise Achievement Vis A Vis Targets under Annual Credit Plan 2022-23 – Upto March 2023 – Punjab Region**

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[28] https://knnindia.co.in/news/newsdetails/msme/rs-10370-cr-loan-disbursed-to-21-lakh-msmes-in-punjab-under-eclgs
[29] https://www.cgtmse.in/DocumentRepository/ckfinder/files/Annual_Report_2021-22_English.pdf

Table 15: District Wise Achievement Vis A Vis Targets under Annual Credit Plan 2022-23

Amt. in Rs. crore

District	MSMEs (Micro, Small & Medium Enterprises) [Manufacturing + Services]		
	Target	Achievement	% age Achievement
Amritsar	3509	11908	339%
Barnala	490	519	106%
Bathinda	1359	3970	292%
Faridkot	749	712	95%
Fatehgarh Sahib	1369	1894	138%
Fazilka	775	943	122%
Ferozepur	1137	1013	89%
Gurdaspur	1137	1155	102%
Hoshiarpur	3305	1479	45%
Jalandhar	4440	4545	102%
Kapurthala	2567	1087	42%
Ludhiana	19350	26593	137%
Mansa	725	716	99%
Moga	1960	1128	58%
Muktsar Sahib	315	634	201%
Pathankot	764	970	127%
Patiala	2624	7655	292%
Rupnagar	919	751	82%
Sangrur	1162	2116	182%
Sas Nagar	2380	3511	148%
Sbs Nagar	776	614	79%
Tarn Taran	689	379	55%
Malerkotla	270	437	162%
Total	52771	74729	142%

*This data is on Pro-Rata Basis

Small Industries Development Bank of India (SIDBI), established under an Act of the Parliament in 1990, is mandated to serve as the Principal Financial Institution for executing the triple agenda of promotion, financing, and development of the MSME sector and coordination of the functions of the various Institutions engaged in similar activities. It has launched various schemes to support MSMEs in Punjab, such as

- *SIDBI Make in India Soft Loan Fund for Micro Small and Medium Enterprises (SMILE),*
- *SIDBI Udyamimitra, &*
- *SIDBI Swavalamban.*

These schemes provide financial assistance, capacity building, and marketing support to MSMEs in Punjab to help them enhance their competitiveness and growth prospects.

While there exist multitude of options to avail credit facilities, the common problem that small businesses have faced and are still facing is access to credit from these institutions. This problem is prevalent due to multiple reasons like lengthy paperwork, absence of collateral, lack of trust in loan repayment, inadequate financial expertise. Even though the Government of India has made numerous efforts and implemented various schemes to provide financial assistance to the MSMEs, there are only 14% of the MSMEs that borrow from formal sources, 57% of micro-enterprises have no cash reserves and 65% dipping into their personal savings.

To support the MSMEs, many local, regional, and national banks in Punjab provide access to credit lines and financial assistance and incentives to the MSMEs in the state. While many such institutes exist, the state of Punjab through its Industrial and Business Development Policy 2022, is making efforts to create a conducive environment for the state's MSME sector to grow.

Fiscal Incentives to MSMEs by The State of Punjab as per the State's Industrial Policy 2022[30]

Sno.	Nature of Incentive	Extent of Incentive
A.	**Access to Finance**	
1	Investment subsidy by way of reimbursement of net SGST on intra-State sale	Reimbursement of 100% of net SGST for 7 years from the date of commercial production with a cap of 100% of FCI.
2	Capital subsidy to New Micro and Small manufacturing enterprises in Thrust Sector, Exporting Units and Micro and Small Service Enterprises engaged in providing Research and Development activities.	50% of Fixed Capital Investment subject to ceiling of INR 50 Lakh per unit in Border districts, Kandi areas, Aspirational Districts and District Bathinda, Faridkot, Mansa, Muktsar, Sangrur, Malerkotla, Barnala and 20% of FCI subject to maximum 50 Lakhs in other Districts. Capital Subsidy availed by the units under any GOI/State scheme-shall be excluded from the incentive.
3	Interest Subsidy for Border Districts, Kandi Areas and Women and SC Enterprises	For Border Districts, Kandi Areas and Women and SC Enterprises Interest subsidy @ 5% pa subject to maximum of Rs. 5 lakh per year for 5 years.
4	Additional State Support of interest subsidy under Credit Linked Capital Subsidy Scheme (CLCSS) of Ministry of MSME, GOI	Interest subsidy of 5% subject to maximum of 5 lakh per year for a period of 5 years from the date of commercial production to such units eligible under CLCSS scheme. The companies, which have already availed the CLCSS scheme and exhausted its limit are also eligible under the same terms for taking the additional benefits given by the State under the said scheme.
5	Additional State Support of reimbursement of guaranteed fee charged under Collateral Free Credit Guarantee Trust for Micro & Small enterprises (CGTMSE) Scheme	100% of the guaranteed fee to be reimbursed to micro and small enterprises subject to a maximum of Rs. 2 lac per year for 5 years from the date of commercial production

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[30] https://pbindustries.gov.in/static/assets/docs/Industrial_Policy_2022.pdf

6	Financial assistance to MSMEs for 'Emerge' exchange platform set up by NSE	25% of the cost of Public Issue expenses, subject to maximum of Rs.10 lakh for registration of National Stock Exchange once during the validity period of the Policy.
B.	**Access to Infrastructure**	
7	Exemption from Electricity Duty	100% exemption for 7 years up to 100% of FCI or 100% exemption on the power consumption corresponding to the Electric Load (KW) required for the installed capacity as recorded in the approved DPR whichever is lower, from the date of release of power connection for new units/from the date of commercial production after expansion for expansion cases. (Refer Illustration as per Annexure – B)
8	Exemption/Reimbursement from Stamp Duty	100% exemption/reimbursement from stamp duty for purchase or lease of land and building
C.	**Access to Technology**	
9	Assistance for Technology Acquisition	50% of the cost subject to maximum of Rs. 25 lakhs for adopting technology from a recognized National Institute once during the validity period of the Policy.
10	Additional support to ZED scheme of GOI.	Reimbursement of 50% of expenses subject to maximum of Rs. 5 lakhs incurred on plant and machinery/testing equipment for obtaining at least gold category status under ZED scheme to First 100 units during the validity Period of Policy.
11	Reimbursement of expenses incurred for Energy Audit/ Water Audit/ Safety Audit/Environment audit/steam Audit	75% subject to a maximum of Rs. 1.5 lakh each for energy/environment/steam audit /water audit and Safety Audit once during the validity period of the Policy.

12	Assistance for Environmental Compliance	50% financial support subject to a maximum of Rs. 25 lakhs on capital cost for setting up of effluent treatment plant, installation of Water Pollution Control Devices, and installing zero liquid discharge technology once during the validity period of the Policy.
13	Exemption from Ground extraction charges for new MSME units	(a) Industry using surface water @50% of its total water requirement shall be given 25% exemption from ground water charges for 7 years from the date of commercial production. (b) The Department of Water Resources shall rationalize the ground water charges in consultation with Punjab Water Resource Development Authority.
D.	**Access to Market**	
14	Reimbursement of expenses incurred for patent registration	75% of the expenses are subject to maximum 10 lakh for domestic patent and maximum 20 lakh for international patent once during the validity period of the Policy.
15	Additional Support for Performance and Credit Rating Scheme of Ministry of MSME	Reimbursement of 25% of the fee subject to maximum of 10 thousand
16	Reimbursement of expenses incurred on quality certifications	100% subject to maximum of Rs.10 lakh on all quality certifications including ZED certification.
17	Design Clinic Scheme	Reimbursement of the contribution of industries of Rs. 1 lac per program for design awareness program by National Institute of Design, Ahmedabad
18	Vendor Development Program	Assistance of INR 5 Cr to MSME Punjab for assisting the industry in organizing Vendor Development Programmes, Buyer – Seller meets, Reverse Buyer- Seller meets.

19	Marketing Support	Assistance to MSME for showcasing their products at local, national and international event:
		@50% of total rent limiting to ₹5lakhs for participation in International Trade Fairs abroad
		@25% of total rent limiting to ₹3lakhs for Domestic Trade Fairs and Exhibitions.
		Nil for Pavilion at Progressive Punjab Events and Conferences
20	Design and Brand Promotion facility	State would allow setting up of Design and Brand Promotion facility by the new manufacturing units at separate location w.r.t. manufacturing facility within the state subject to a maximum FCI cap of 20% of Total Project cost which shall be added in the eligible FCI of manufacturing unit. No Separate Incentive shall be available for this Design and Brand Promotion Facility.
21	Digital marketing support	Reimbursement of 50% of the cost of on boarding on e-commerce Platform, developed by NSIC, or other similar Platform approved by State Govt/GOI, subject to maximum INR 25,000 per unit to first 1000 units during the validity period of Policy.
22	Freight Assistance to Exporting Unit	1% of FOB value or actual freight paid from the place of Manufacture to the place of shipment, whichever is less subject to maximum of Rs 20 Lac per annum for 5 years with in the validity period of policy.
23	Annual State Awards to MSME, SC, Women and Exporters	Annual award of Rs. 1 lakh per unit for excellence in productivity, quality, export for each category of enterprise.

Major Factors of Production – Land, Energy, Water, Labour, Entrepreneurship, Technology, R&D/Testing Facilities

Land

The districts in Punjab make up for 50,362 sq. kms in area and the bifurcation of each district, area-wise is as follows:

Table 16: Bifurcation of district in Punjab area-wise

Sno.	District Name	Area (km 2)
1	Amritsar	2,647
2	Barnala	1,410
3	Bathinda	3,385
4	Faridkot	1,469
5	Fatehgarh Sahib	1,180
6	Ferozepur	2,190
7	Fazilka	3,113
8	Gurdaspur	2,635
9	Hoshiarpur	3,365
10	Jalandhar	2,632
11	Kapurthala	1,632
12	Ludhiana	3,767
13	Malerkotla	837
14	Mansa	2,171
15	Moga	2,216
16	Sri Muktsar Sahib	2,615
17	Pathankot	929
18	Patiala	3,218
19	Rupnagar	1,369
20	Sahibzada Ajit Singh Nagar	1,093
21	Sangrur	2,848
22	Shahid Bhagat Singh Nagar	1,267
23	Tarn Taran	2,449

While we have a breakup of available area across all the districts, the MSMEs require physical space/location for their operations near the focal point of operations.

Districts such as Barnala and Faridkot are making efforts to resolving concerns pertaining to CLU (Change of Land Use) and land- related problems which is essential for facilitating smooth industrial operations and ensuring a conducive environment for growth and expansion of business. However, for certain districts such as Bhatinda, Ropar, Nawanshahr, Ferozepur, the process of obtaining a Change of Land Use (CLU) is still a cumbersome issue. Efforts should be made to make the process convenient for people to comprehend it in a better way.

Power

Power is one of the basic factors of production for Industries. Punjab is a power surplus state and has adequate power supply to meet the demand. The state has excellent distribution network which includes 66 KVA sub-stations at every 10 km. It has the country's first ever 400 KVA ring main system covering the entire state. The state has a cumulative installed renewable energy capacity of 1,422 MW with 475 MW of Biomass power and over 800 MW of solar power. The state thus has an advantage of surplus power and a robust power infrastructure. [31]

Punjab is the only state in North India which has been able to control the theft of power and has achieved reduction of aggregate technical and commercial losses below 15%. To enhance the cost competitiveness and reduce the recurring expenditure, the State will provide power at affordable tariff for 5 years. This would not only benefit the new industry in Punjab, but also help in reviving the existing industry of Punjab, which has always been the State's pillar of strength.

Below mentioned are some of the provisions[32] introduced by the state in power sector:

Business Friendly Policies by Punjab State Power Corporation Limited PSPCL: PSPCL will review its policies to make them more business friendly for release of new connection, enhancement of load, splitting of connection, import of bulk power, rationalization of various electricity rates and other service charges, peak load charges, procurement from state MSME's and OTS policy etc.

Open Access of Power in Punjab: Industry shall be allowed to buy power from the exchange as per charges fixed by regulator.

Rationalization of Electric Load: State will Rationalize the electric load for SP- is upto 20KW and MS-is upto 100 KW.

Time Bound Incentive of ED: In case of the incentives for Electricity Duty Exemption, after the issuance of Eligibility Certificate by the competent authority, subsequent notification for each case shall be issued by Department of Power within next 30 days through Invest Punjab Business First portal only.

Special advisory Cell: To Promote Solar Power, a special cell is being set up in PSPCL to facilitate and advise the industry to install solar Power to augment the solar power generation in the state. Following measures shall be taken to Promote use of solar Power by Industry: -

(a) Net Meter shall be installed within 15 days of application.

(b) There will be no capping on the Maximum installed capacity of Solar Plant.

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[31] Export Analysis and Export Vision Plan 2021-2026
[32] https://pbindustries.gov.in/webportal/uploads/pdffiles/a3c3f4cdf2becbd13442973e23ec4c0f.pdf

(c) Any unit installing solar power of more than 10% of their usage (in thrust/anchor) should be levied fixed charges on 70% of contract demand and not 80%. Installation of more than 30% of solar power should further be levied fixed charges on 50% of contract demand.

Basis our primary survey conducted, following are the challenges outlined for Power in the state:

- In Amritsar and Tarn Taran, the concern for irregular power cuts needs to be tackled effectively.
- A higher rate of interest is a concern in Mukstar since it becomes challenging to compete with other states that have lower rates and higher benefits such as in electricity, water, etc.
- In Bathinda, there are high electricity which has eventually lead increase in rates of manufacturing.
- In Mandi Gobindgarh, there are issues related to electricity. It is requested that the government should invest in the infrastructure that minimises transmission losses.
- In Sangrur and Malerkotla, there are infrastructure gaps and constraints when it comes to power, water, roads, industrial land, and laboratory capacity.
- In Patiala, new industry zones are developed in rural areas, facing the power cut issues and due to connectivity of link roads, facing problem of roads and safety of carrying goods.

Water

Punjab does have a very well developed and interlinked river system and widespread 14,500 kms long Canal Systems. The estimated value at the present price level of Water Resource Infrastructure in the State is more than Rs.50, 000.00 crore.[33]

The 5 rivers in Punjab are the most important water resources. The rivers are as follows:

- Sutlej River originates from Rakshasthal Lake adjacent to Mount Kailash in Tibet. This 1450 kms long river flows west throughout Himalayas, Himachal Pradesh, and Punjab. Bhakra Dam is situated at Himachal Pradesh and Indian Punjab borders on Sutlej River which is further used widely for irrigation.
- Beas River is one of the "five rivers" of Punjab which merges with Sutlej River after flowing a distance of nearly 300 miles at Harike Pattan situated towards the south of Holy city of Amritsar to finally exhaust its stream into the Arabian Sea.
- Ravi River comes out from the Himalaya's range of Chamba district of Himachal Pradesh which flows nearly 725 kms distance. The famous Indus civilization, Harappa, and one of its utmost cities was situated close to the earlier route of this River. The fruitful water of Ravi River is used both for irrigation and drinking purposes.
- Chenab River also has its source in the Himalayan range district of Lahaul and Spiti of Himachal Pradesh state of India. This river 16 has also been dammed for the purposes of irrigation and Hydroelectric generations and plays significant role for energy source and agriculture for both India and Pakistan.

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[33] State Profile of Punjab.pdf (msmedildh.gov.in)

- Jhelum River is located at the most western side of "five rivers" of Punjab. The Jhelum River has 775 kms as a total flowing length. This river like Chenab has also been dammed for irrigation and hydroelectric generation purposes.

District wise yearly rate of Fall / Rate of Rise of Water Level - June 1984 to June 2017[34]

DISTRICTWISE YEARLY RATE OF FALL / RATE OF RISE OF WATER LEVEL - JUNE 1984 TO JUNE 2017

(Fig. in Meters / Per Year)

S. NO.	DISTRICT	DISTRICTWISE YEARLY RATE OF FALL OF WATER LEVEL			DISTRICTWISE YEARLY RATE OF RISE OF WATER LEVEL		
		DISTRICTWISE YEARLY RATE OF FALL OF WATER LEVEL IN AREA OF FALL OF WATER LEVEL UPTO 5 M	DISTRICTWISE YEARLY RATE OF FALL OF WATER LEVEL IN AREA OF FALL OF WATER LEVEL OF MORE THAN 5 M	DISTRICTWISE AVG. YEARLY RATE OF FALL OF WATER LEVEL IN AREA OF FALL OF WATER LEVEL	DISTRICTWISE YEARLY RATE OF RISE OF WATER LEVEL IN AREA OF RISE OF WATER LEVEL UPTO 5 M	DISTRICTWISE YEARLY RATE OF RISE OF WATER LEVEL IN AREA OF RISE OF WATER LEVEL OF MORE THAN 5 M	DISTRICTWISE AVG. YEARLY RATE OF RISE OF WATER LEVEL IN AREA OF RISE OF WATER LEVEL
1	AMRITSAR	-0.11	-0.34	-0.30	-	-	-
2	BARNALA	-	-0.75	-0.75	-	-	-
3	BATHINDA	-0.10	-0.44	-0.34	0.08	0.30	0.23
4	F. GARH SAHIB	-	-0.46	-0.46	-	-	-
5	FARIDKOT	-0.10	-0.27	-0.21	-	-	-
6	FAZILKA	-0.05	-0.31	-0.15	0.08	0.33	0.19
7	FEROZEPUR	-0.10	-0.37	-0.29	-	-	-
8	GURDASPUR	-0.07	-0.20	-0.12	0.02	0.17	0.09
9	HOSHIARPUR	-0.10	-0.48	-0.39	0.06	0.56	0.31
10	JALANDHAR	-0.10	-0.52	-0.51	-	-	-
11	KAPURTHALA	-0.11	-0.44	-0.32	-	-	-
12	LUDHIANA	-0.08	-0.45	-0.33	-	0.17	0.17
13	MANSA	-0.07	-0.40	-0.33	0.12	-	0.12
14	MOGA	-	-0.55	-0.55	0.05	-	0.05
15	MOHALI	-0.07	-0.52	-0.29	-	0.25	0.25
16	MUKTSAR	-0.04	-	-0.04	0.12	0.35	0.29
17	NAWAN SHAHR	-0.09	-0.33	-0.28	-	-	-
18	PATHANKOT	-0.03	-0.46	-0.09	0.05	0.27	0.11
19	PATIALA	-0.08	-0.75	-0.73	0.07	-	0.07
20	ROPAR	-0.07	-0.44	-0.19	0.01	0.16	0.05
21	SANGRUR	-	-0.81	-0.81	-	-	-
22	TARN TARAN	-0.07	-0.41	-0.39	-	-	-
	STATE	**-0.08**	**-0.50**	**-0.39**	**0.07**	**0.31**	**0.18**

NOTE:- This data is Provisional and shall be used only for acedamic purposes only.

Labour

Punjab will soon experience a sizable demographic dividend due to a growing working-age population. A total of 25.7 lakh more people are anticipated to enter the working age group between 2012 and 2017, followed by another 23.2 lakh between 2017 and 2022[35].

The state's incremental human resource needs vary significantly by sector and by geography. Priority industries in terms of manpower development include textiles, BFSI, construction, food processing, and communication.

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[34] https://irrigationapp.punjab.gov.in/PDF/WaterResources/11092018/DISTRICTWISE-YEARLY-RATE-OF-FALL-AND-RATE-OF-RISE-JUNE-1984-TO-JUNE-2017.pdf
[35] These are gross numbers, not accounting for retirees

Details of district wise incremental manpower break up along with key sectors accounting for the major employment share are presented in the table below[36]

Table 16: Details of district wise incremental manpower break up along with key sectors.

District	Incremental Manpower Requirement 2012-17	Incremental Manpower Requirement 2017-22	Focus Sectors
Amritsar	84085	67039	Construction, BFSI, Organized Retail
Barnala	18886	22133	Textile & Apparel, Pharmaceutical, Construction
Bathinda	32662	31120	Food Processing, Healthcare, Retail
Faridkot	16674	17268	Food Processing, Construction, Engineering Services
Fatehgarh	15819	19210	Construction, Agriculture Implements Servicing
Ferozepur	48073	43649	Food Processing, Construction, Training & Education
Gurdaspur	69989	64503	Organized Retail, Transportation & Logistics, BFSI
Hoshiarpur	48742	46953	Healthcare, Construction, BFSI
Jalandhar	103645	101426	Engineering Goods, Retail, Transportation & Logistics
Kapurthala	28313	31079	Engineering Goods, Repair Services, Transportation
Ludhiana	155957	156182	Small Auto Parts, Retail, Hospitality
Mansa	13506	15285	Food Processing, Agriculture Implements

Moga	22866	23785	Food & Dairy Processing, Healthcare, Retail
Mohali	31719	33239	Agriculture Implements Servicing, Food Processing
Muktsar	18214	19420	Dairy Processing, Retail, Hospitality
Nawanshahr	39607	34425	Cement & Chemicals, Paper Products, Transportation
Patiala	43824	49423	Food Processing, Small Repair Services
Rupnagar	29261	28609	Tractor Parts, Retail, Hospitality
Sangrur	43913	42069	Construction, Retail
Tarn-Taran	43782	41696	Retail, Communication, BFSI

Moreover, a skill gap assessment from 2012-2017 to 2017-2022 has been undertaken in the below table, district-wise to understand how the demand for skilled labour has increased/decreased over the years in the state. It is seen in the below table that while a lot of districts have seen an increase in demand, there are districts like Bhatinda, Fatehgarh, Moga, Muktsar and Patiala that earlier witnessed availability of excess supply of labour in 2012-2017 and have seen a fall in 2017-2022.

From our stakeholders' consultations and industrial visits, we inferred that Barnala, Mukstar, Amritsar and Tarn Taran face the issues of availability of skilled labor. Learning new skills would help enhancing skills of the labor and motivate them to work.

In Moga, there is unavailability of skilled labour. In Bathinda, here is a shortage of skilled labourers, especially women workers. Hoshiarpur and Kapurthala face the availability of skilled labor as well which slows down the process of production for them.

Below is the skill gap assessment undertaken for year 2012-2017 and 2017-2022 across the districts of Punjab:

Skill gap assessment[37]

Region	2012-2017		2017-2022		%increase/decrease in skill gap
	Skilled	Total	Skilled	Total	
Total	23601	354,878	30,235	427,226	28.11% (increase)
Amritsar	3,408	35,387	2,473	26,429	-27.44% (decrease)
Barnala	508	6,019	1,098	11,328	116.14% (increase)
Bhatinda	(744)	3,038	(277)	6,675	-62.77% (decrease)
Faridkot	(343)	3,094	33	5,981	-90.38% (decrease)
Fatehgarh	(620)	2,552	18	7,688	-97.10% (decrease)
Ferozepur	2,011	9,533	1,807	11,966	-10.14% (decrease)
Gurdaspur	1,987	30,520	1,960	32,710	-1.36% (decrease)
Hoshiapur	547	19,590	931	23,326	70.20% (increase)
Jalandhar	5,168	64,103	5,310	68,908	2.75% (increase)
Kapurthala	137	13,873	788	19,390	475.18% (increase)
Ludhiana	6,441	87,329	7,396	99,167	14.83% (increase)
Mansa	(885)	(3,670)	(359)	845	-59.44% (decrease)
Moga	(610)	1,437	(25)	6,006	-95.90% (decrease)
Mohali	1,642	12,164	2,065	16,465	25.76% (increase)
Muktsar	(781)	(741)	(255)	3,513	-67.35% (decrease)
Nawanshahr	2,071	21,285	1,580	18,837	-23.71% (decrease)
Patiala	(1,234)	6,801	242	18,176	-80.39% (decrease)
Roopnagar	1,333	13,682	1,456	15,424	9.23% (increase)

[37] https://skillsip.nsdcindia.org/knowledge-products/district-wise-skill-gap-study-punjab

Sangrur	181	4,484	598	8,584	230.39% (increase)
Tarn taran	3,383	24,398	3,397	25,807	0.41% (increase)

(indicates excess supply)   *District-Wise Skill Gap Study of Punjab 2013*

R&D testing facilities and Institutional Support to Industries in Punjab

1) **R&D Centre for Bicycle and Sewing Machine, Ludhiana[38]:** The main objective of this project was to build an institute to provide various engineering facilities for up grading the technological level of the small-scale industries. The Machinery & Equipment installed are of National/International credibility and are operated by trained staff under supervision of experienced professionals. The institute is helping industry in their technological & quality requirements.

The objectives of the centres are as follows: -

- To create & provide facilities to the SME Sector to enable them to upgrade and become competitive in world market.
- To acquire, demonstrate, develop & disseminate new technologies.
- To develop & transfer technologies as per the level of skill available with the SME Sector.
- To provide Research & Development & Common facilities to the SME Sector.
- To upgrade the level of skill available with the SME Sector to adopt newer technologies.
- To provide job specific hands-on training to the working personnel of industry.

2) **MSME - Development Institute, Ludhiana[39]**

The Micro, Small & Medium Enterprises Development Institute was set up at Ludhiana in 1956 (formerly known as SISI) to serve the erstwhile combined Punjab. At present, the Institute caters to the needs of micro, small & medium industries sector in the State of Punjab and U.T. Chandigarh. It is one of the 30 Institutes functioning all over the country under Ministry of MSME, Govt. of India.

3) **MSME Tool Room, Ludhiana**

The Government of India established this MSME-Tool Room (previously known as Central Tool Room) at Ludhiana in the year 1980-81 with financial and technical collaboration of the Government of Federal Republic of Germany and the active support of the government of Punjab. The Centre has been providing services to the industry in general and MSME units in particular viz. Tooling development, Rapid prototyping, Heat treatment, technical consultancy, and Training; Short-Term courses address

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[38] http://bsrdindia.org/
[39] https://msmedildh.gov.in/State%20Profile%20of%20Punjab.pdf

various topics in the field of Tool Engineering. Now they are mostly dealing with CNC programming and machining as well as CAD/CAM.

4) **MSME Tool Room, Jalandhar**

The Government of India has set up this Tool Room at Jalandhar, with UNDP assistance and active participation of Punjab Government. It was previously known as Central Institute of Hand Tools. The Institute was registered as Society in 1983. The Centre provides comprehensive support in the field of design and development of latest hand tools, consultancy and provides common facility services to MSME entrepreneurs.

5) **Mechanical Engineering Research & Development Orgn.**

The Central Mechanical Engineering Research Institute (CMERI) Durgapur under the aegis of the Council of Scientific & Industrial Research (CSIR) established a Centre in Ludhiana in 1965 known as MERADO to boost the Mechanical Engineering Research & Development in Punjab State. The Centre helps the industry in the following fields: design, development and standardization of industrial machinery and equipment, farm machinery and equipment and jigs, fixtures, tools and gauges, testing of materials, components and products for hardness, tensile, compression, bending and impact strength, internal flaws by ultra-sonic, radiographic, etc. Preparation of feasibility reports for light and medium industry, industrial consultancy, expert guidance to foundry industry and precision jig boring etc.

6) **Central Institute of Plastics Engineering & Technology, Amritsar**

Technology Support Services (TSS) is an integral part of the activities of CIPET. It renders quality services to its customers in Tooling, Precision Machining on CNC machines, Design and Manufacturing of Moulds for Plastics products, CAD/CAM/CAE services, Plastics product manufacturing through state of art Injection moulding machines, Blow moulding, PET Stretch blow moulding, Pipe and Film extrusion etc, Testing and quality control for Plastics Materials and products, Pre delivery inspection of plastics products like PVC and PE pipes, Woven sacks, Water storage tanks, Micro-irrigation plastics implements, Engineered bamboo boards, Polymer based composite doors etc. Project consultancy, technology consulting and assessment in the field of Plastics are the important service portfolio of TSS. CIPET has successfully 26 accomplished consulting assignments in India and abroad.

7) **Institute For Auto Parts Technology, Ludhiana**

To accede to the long awaited and persistent demand of Auto parts industry in the State, the 27 Punjab Government with the assistance of UNDP/UNIDO has established above institute. This institute is

catering to the overall development and growth of auto parts industry in Punjab and neighbouring States.

8) <u>**Institute For Machine Tools Technology, Batala**</u>

Institute for Machine Tools Technology is a Punjab Government project assisted by the UNDP/UNIDO. It has come up on a plot area of 5.85 acres in the Industrial Focal Point of Industrial Town Batala. UNDP is contributing to the shape of imported latest plant and machinery, foreign experts, fellowship training of the staff at the renowned Institutes in India. The Institute primarily assists SSI units to upgrade their technological base and quality of their products in changing economic and technological environment. The capabilities are being established in the areas relating to TQM, testing & evaluation, design, prototype development, heat treatment, production process, CAD, and R&D.
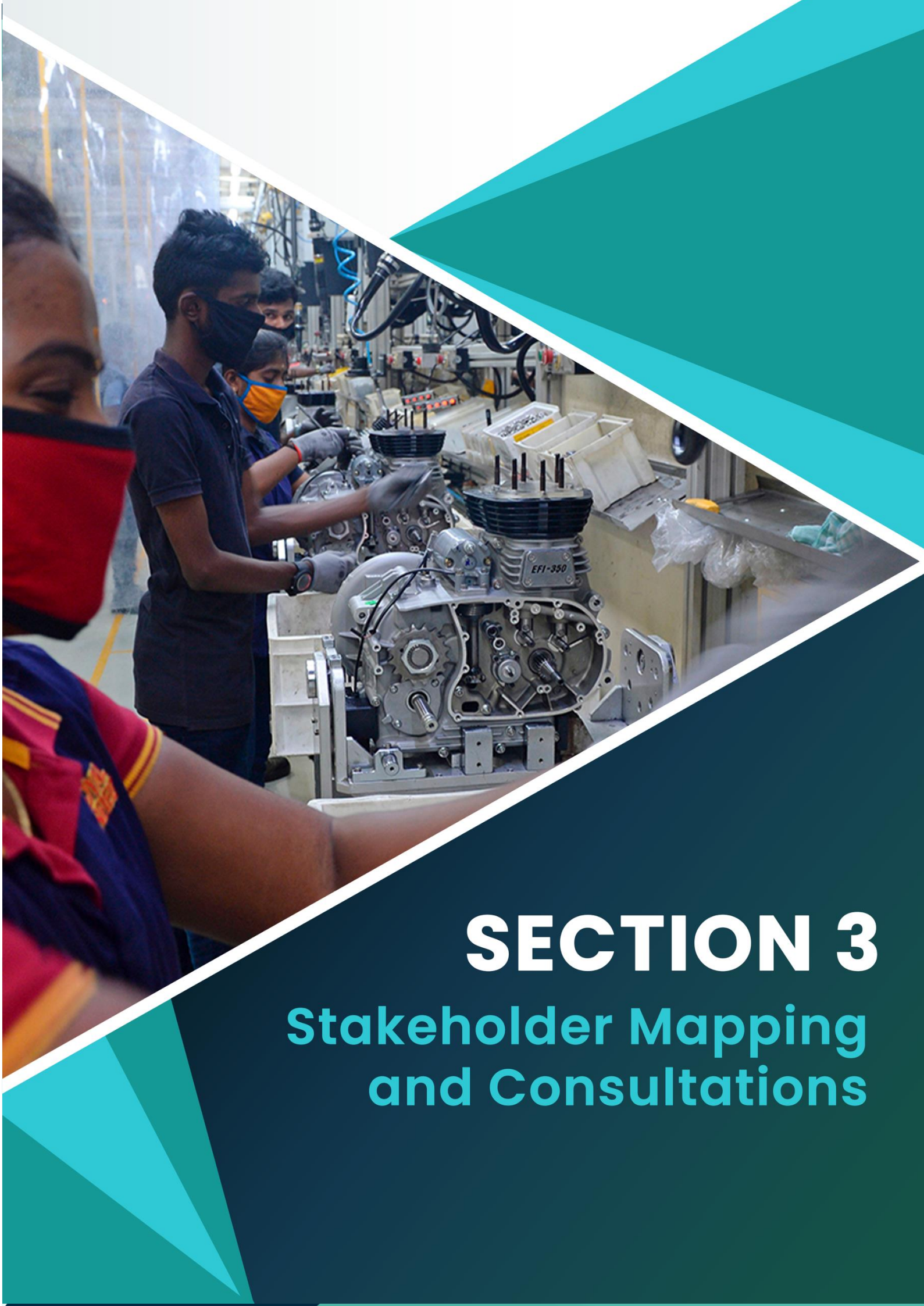
SECTION 3
Stakeholder Mapping and Consultations

Section 3: Stakeholder Mapping and Consultations

To develop the SIP under the RAMP Programme in Punjab, extensive stakeholder consultations and primary research/survey has been undertaken with multiple stakeholders to understand the scenario of MSMEs in the state and outline the underlying challenges to promote their growth and competitiveness. The interventions proposed under SIP for Punjab in Section 6, have been identified and proposed basis the analysis of all the primary consultations and survey undertaken. The stakeholder consultations can be broadly categorised into the below given categories: -

Discussion with Government Departments	Primary Survey of 5016 units	Consultation with Industrialists	Focused Group Discussions with Industry Association, GM DICs and SHGs
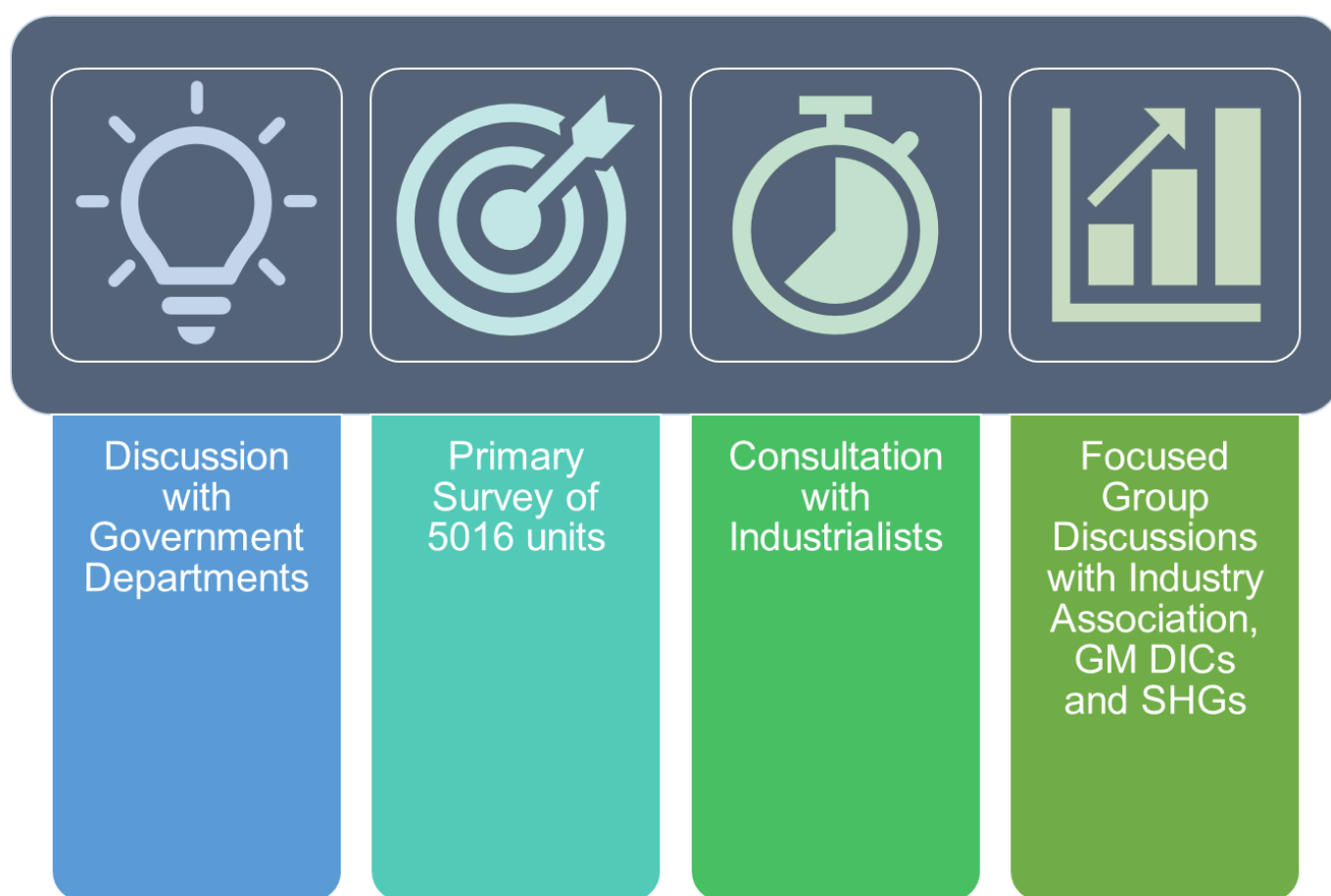
1) Discussion with Government Departments

In order to develop a wider understanding of the MSME scenario in the state of Punjab, it is imperative to comprehend the narrative of the government departments. In lieu of this, multiple meetings and consultation sessions were held with the below outlined government departments to understand the

Department	Attended By	Key Points of Discussion
1st SRPC Meeting	• Principal Secretary Industries & Commerce	• All the Dept. to assign Nodal Officers for easy coordination and facilitation.

	- Financial Commissioner, Rural Development - Principal Secretary, Power - Principal Secretary Governance Reforms - Principal Secretary Housing and Urban Development - Principal Secretary Finance - Principal Secretary Local Government - Chief Executive Officer, PBIP - Director Industries & Commerce - Managing Director, PSIEC - Director, MSME-Development Institute - Nodal Officer, RAMP	- Discussion around dovetailing with MSME schemes of other departments such as energy efficiency scheme, foundry scheme in Ludhiana, export competitiveness etc. - Rural Development Dept. to organize workshops with SHGs and provide data related to SHGs. - There exists a need to focus on Champion Industries - Schedule a meeting with Rural Dept. to discuss about market linkage project etc.
Meeting with Department of Rural Development, Punjab officials	- Mr. Mandeep Punia, Officer, PSRLM, Capacity Building - Ms. Shweta, Officer, PSRLM, MIS	- Mr. Punia gave a brief about the number of SHGs in the State and the structure of SHGs. - There are about 40,000 SHGs in the State. - The structure comprises of Village level Organization (VO) and Cluster Level Federation (CLF). There are about 2500 VOs and 90 CLFs in the State. - Each SHG has 10-15 women members and they receive funding from the respective VOs. - VOs receive funding from CLFs and CLFs receive funding from the Government. Contribution of Central to State Government is 60%:40%. - SHGs can be involved in Farm or Non-Farm activities for their livelihood. To support the community, Community Enterprise Fund (CEF) and Startup Village Entrepreneurship Programme (SVEP) are devised

		• to support SHGs for skill and entrepreneurship development. • Ms. Shweta shared the data of the number of district-wise SHGs, VOs, CLFs and type of activities, SHGs are enrolled into. • Ms. Shweta spoke about challenges faced by SHGs such as capacity building, marketing, website and e-commerce related training and basic software requirement for billing. She also spoke about the lack of manpower requirement to support the SHGs on the above stated challenges. • It was requested from the department officers to coordinate for a VC to discuss challenges faced by SHGs and CLFs.
Validation Workshop at the Department of Industries and Commerce, Punjab	• Director, Department of Industries • Joint director, Department of Industries • Assistant Director, Department of Industries • GM-DICs of all Districts • Members of the Industry Association	• The proposed interventions outlined under the RAMP initiative underwent thorough and comprehensive discussions with the participation of all relevant government officials during the meeting. • The team actively engaged in gathering insights and feedback on each of these interventions to incorporate in the final SIP document.

2) Primary Survey of 5016 units

- A total of 5016 MSME units were identified across the 23 districts in Punjab for the purpose of the primary survey.
- An extensive google form with a questionnaire attached was circulated for the primary survey.
- Training of enumerators was conducted for the primary survey.
- The analysis from survey of the units conducted so far is as below: -

Total Number of units covered per district are as below: -

Sl. No	District	MSME Units Covered
1	Amritsar	432
2	Barnala	29
3	Bathinda	253
4	Faridkot	103
5	Fatehgarh Sahib	130
6	Ferozepur	67
7	Fazilka	89
8	Gurdaspur	123
9	Hoshiarpur	207
10	Jalandhar	410
11	Kapurthala	74
12	Ludhiana	872
13	Malerkotla	56
14	Mansa	28
15	Moga	163
16	Sri Muktsar Sahib	121
17	Pathankot	905
18	Patiala	61
19	Rupnagar/Ropar	608
20	Sahibzada Ajit Singh Nagar	37
21	Sangrur	60
22	Shahid Bhagat Singh Nagar	99
23	Tarn Taran	89
Total		**5016**

Data Analysis of 5016 units surveyed is as follows: -

1) <u>**Average organizational staff strength for micro, small and medium enterprises of the units surveyed.**</u>

o Categorization of how many of micro, small and medium enterprises are surveyed across districts.

CATEGORISATION OF MSMES SURVEYED ACROSS DISTRICTS
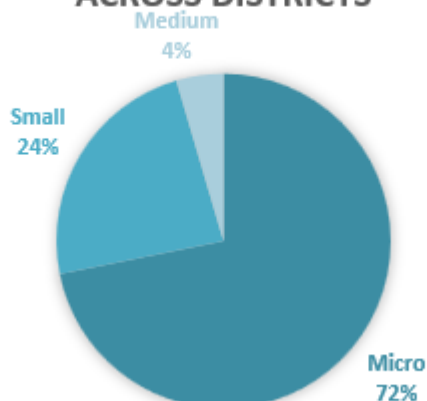
Enterprise category	Total	Percentage
Micro	3603	71.80%
Small	1184	23.60%
Medium	229	4.60%
	5016	

Out of the total 5016 MSMEs surveyed, micro enterprises account for approximately 72% followed by about 24% of small enterprises and 4% medium enterprises.

2) Division of the units across each category – manufacturing and services

Percentage of MSMEs across type of business
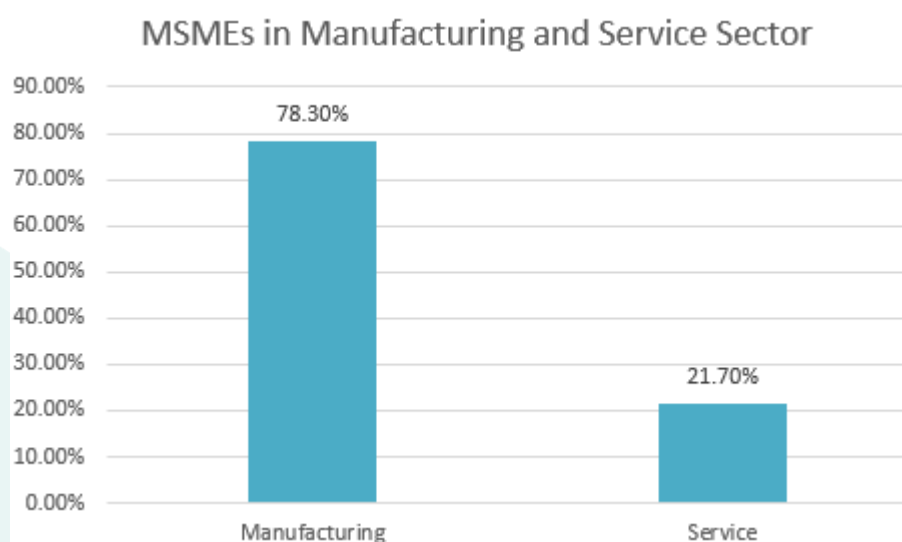
(i) Almost 78% of the MSMEs surveyed belong to the Manufacturing sector and 22% fall under the Service sector.

% OF MSMES IN THE MANUFACTURING AND SERVICE SECTOR
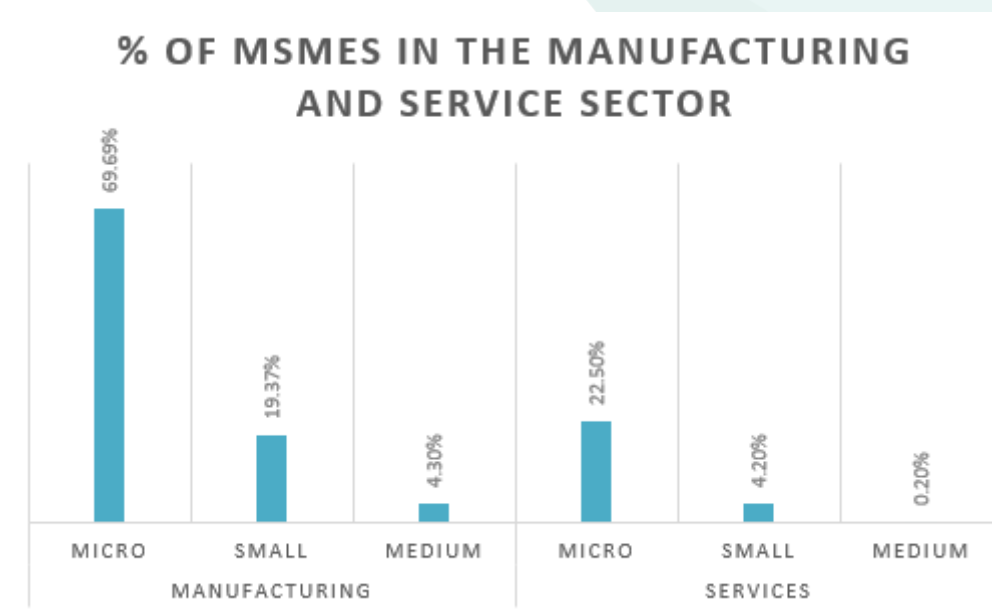
(i) 69.69% micro units belong to the manufacturing sector whereas 22.5% micro units are a part of the service sector.

(ii) The surveyed MSMEs shows that in the manufacturing sector, 19.37% small units are present and almost 4% small units are a part of the service sector.

(iii) For medium enterprises, there are almost 4% in the manufacturing sector and 0.2% in the service sector from the units that were surveyed.

o Percentage of MSMEs across type of ownership/ incorporation

MSME Entities
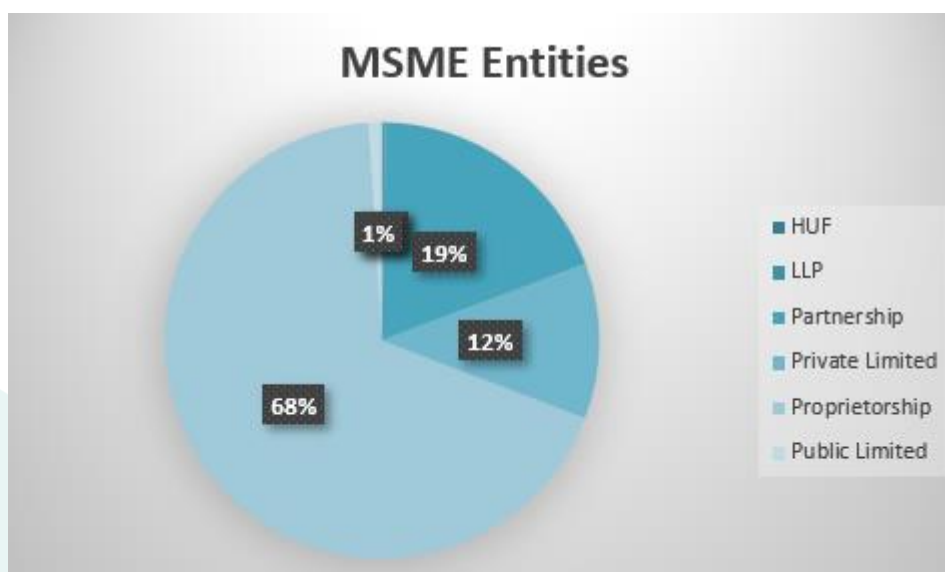
(i)   Proprietorship is the most common type ownership. Almost 68% of the MSMEs practice proprietorship.

(ii)   HUF and LLP have the lowest number of MSMEs surveyed – 0.14%

(iii) Around 19% of the surveyed MSMEs are in partnerships and 11.52% MSMEs category fall under the category of "Private Limited"

(iv)   Public limited companies are not present in a huge number. They constitute to almost 1% of the MSMEs surveyed.

% OF MSMES UNDER DIFFERENT ENTITIES
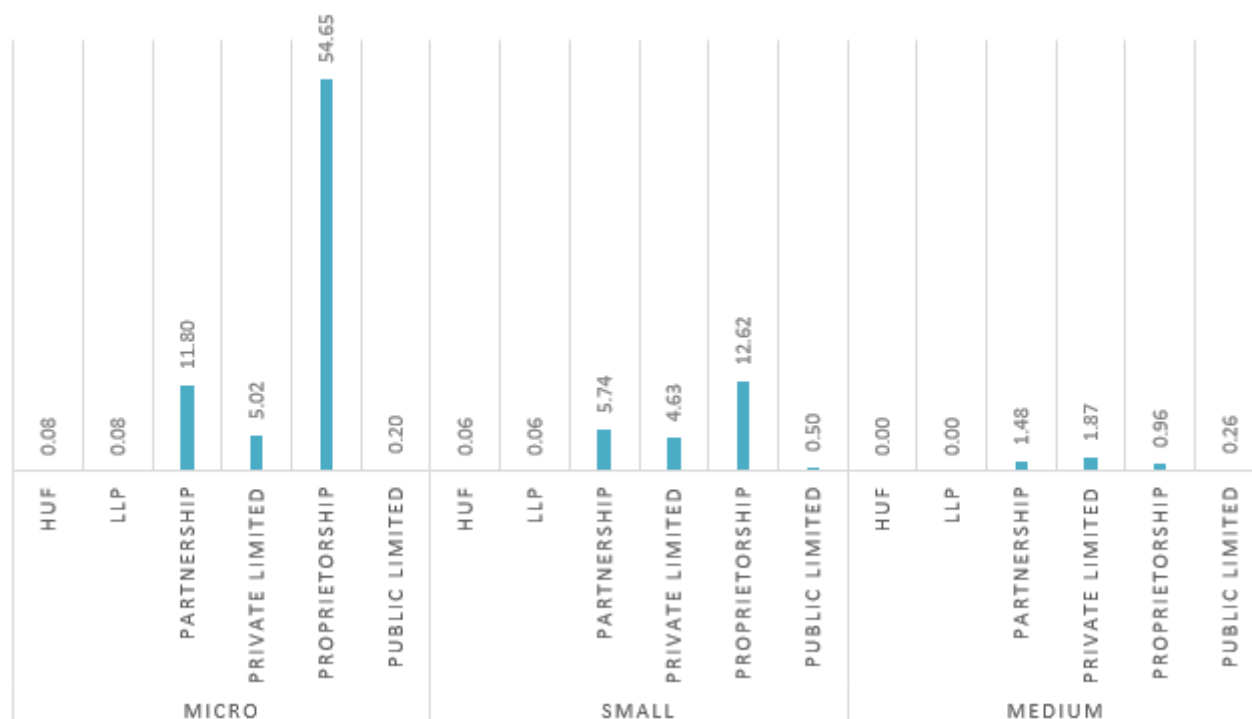
(i)   It was observed that almost 3603 micro units, i.e., almost 72% of the total surveyed MSMEs have separate entities in Micro units. It is inferred that a significant majority, constituting 54.65% of the MSMEs operate as Micro Units under the ownership structure of Proprietorship.

(ii)   Among the 5016 surveyed units, 1184 units i.e., almost 23.6% are small units that have different entities. Almost 6% of the MSMEs function as Partnerships within Small Units, 4.63% as Private Limited Entities and 12.62% as proprietorships under their respective ownership models.

(iii) Within the medium category, 229 (4.57%) are medium enterprises from 5016 MSMEs surveyed. Approximately 2% of surveyed MSMEs operate as Private Limited, while 1% adopt the Partnership structure.

Category of ownership of MSMEs gender-wise
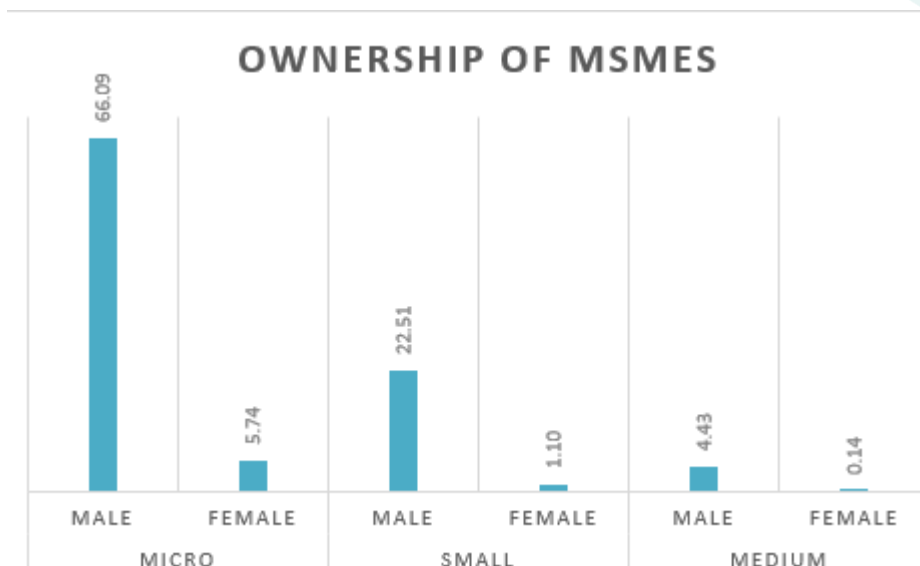
The observation from the survey shows that only 7% of the total MSMEs surveyed are owned by women entrepreneurs whereas 93% are owned by men. The analysis shows:

(i)   Almost 66% of the Micro Enterprises are owned by males.

(ii) 5.74% of the Micro Enterprises are owned by females.

(iii) Almost 23% males and almost 1% females are of the Small Enterprises

(iv) Under medium enterprises, around 4% MSMEs were owned by Males and a very negligible number, i.e., 0.14% is owned by women.

It is inferred that majority of the MSME's are owned by men whereas only a small fraction is owned by women.

OWNERSHIPS IN MANUFACTURING AND SERVICE SECTOR
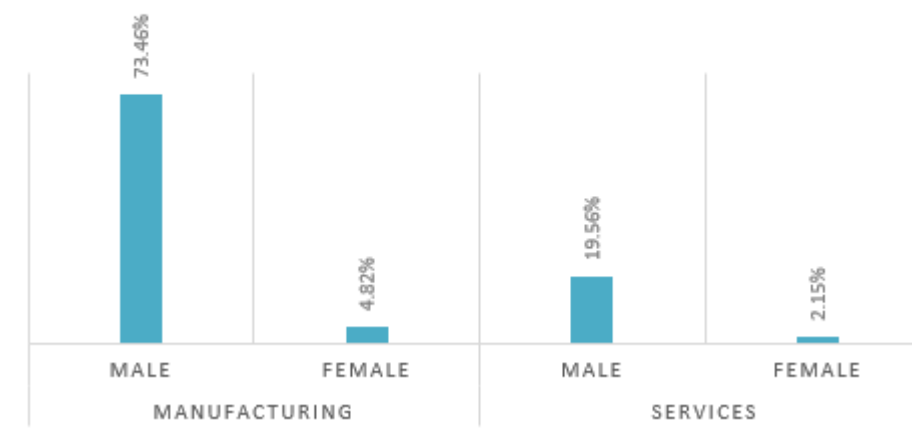
The analysis shows that only 350 enterprises belonged to women constituting about 7% and 4666 enterprises belonged to the male category which was almost 93%. It is inferred that:

(i)   Majority of the MSMEs in the manufacturing sector are owned by men constituting almost 73% of the total units surveyed. Whereas only 4.82% women own MSMEs in the manufacturing sector

(ii) For the Service sector, similar pattern is observed wherein the proportion of male headed MSMEs is more than the female headed MSMEs. Almost 20% businesses are male-headed and 2% are female-headed in the service sector.

3) **Sector-wise division of MSME units across district.**

SECTOR-WISE DIVISION OF MSMES
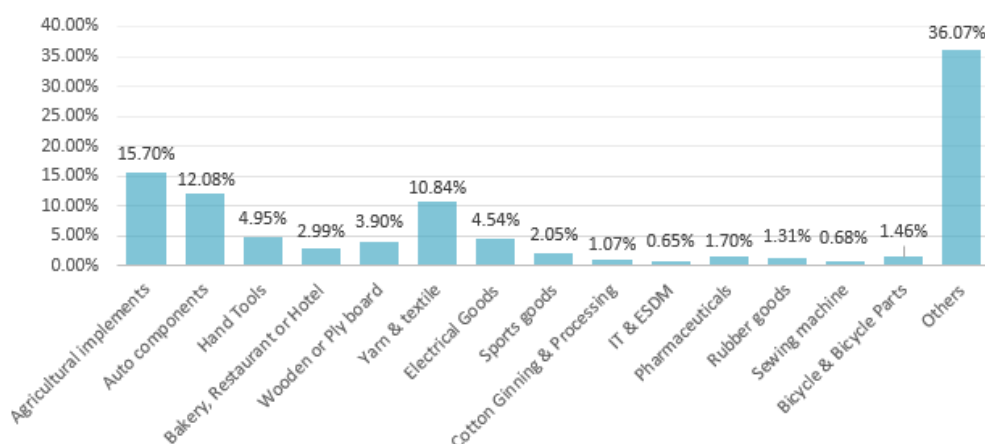
A total of 91% of the units surveyed provided insights about the sector-wise distribution of MSMEs in the state.

(i) The sector with the highest number of MSMEs engaged in is Agricultural implements with almost 16% MSMEs followed by "Auto components" with almost 12% of MSMEs surveyed.

(ii) Sectors such as "Sewing machine (0.68%)," "Bicycle & Bicycle Parts (1.46%)," and "IT and ESDM (0.65%)" have a relatively lower number of MSMEs engaged compared to other sectors.

4) MSME Operations Matrix

o Market linkages of MSMEs across sectors supplying their products regionally, domestically, and internationally.

Supply of Products by MSMEs
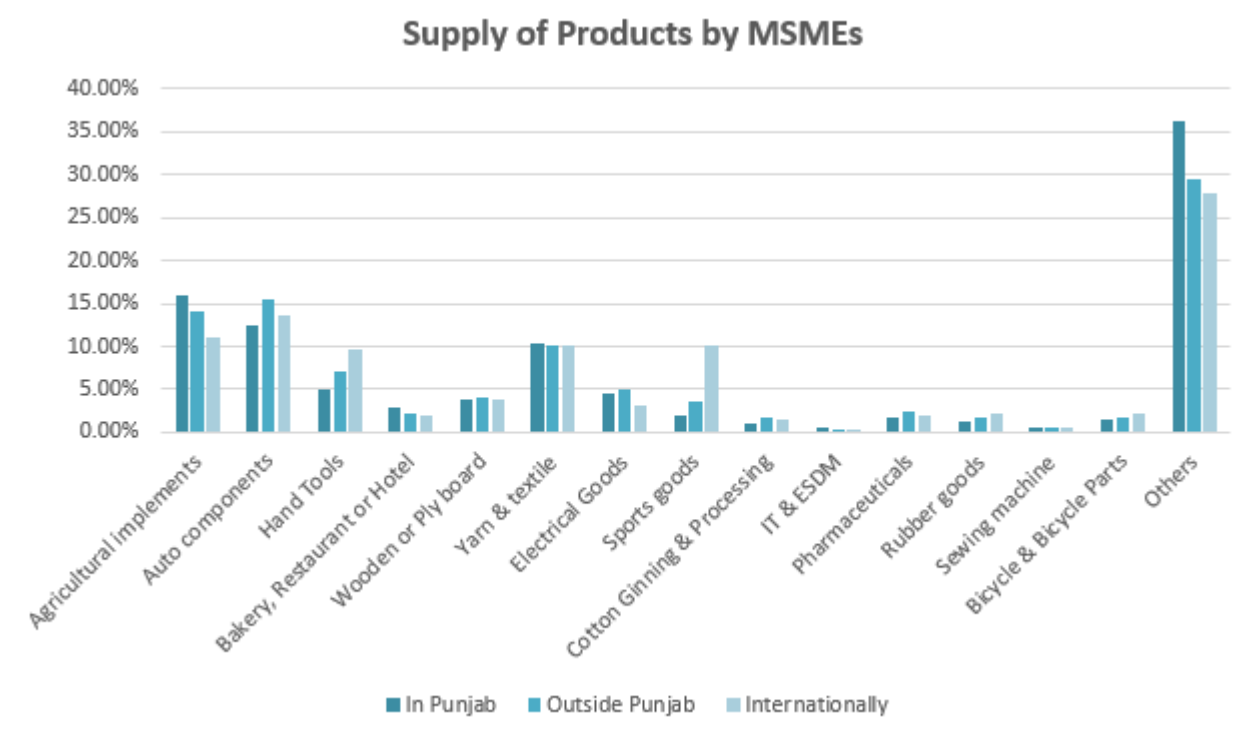
(i) In Punjab: Out of 5016 MSMEs, 4313 surveyed MSMEs supply their products in Punjab. MSMEs in Punjab supply almost 15% in the Agriculture Implements sector and 12% in the Auto components sector.

(ii) Outside Punjab: 2193 units supply their products outside Punjab. MSMEs outside Punjab also have substantial supply, with significant contributions from categories like "Auto components, (15%)" "Hand Tools (7%)," "Yarn & textile. (10%)"

(iii) International: Around 457 MSMEs out of 5016 units supply their products internationally. MSMEs exporting products internationally are prominent in categories such as "Auto components (almost 14%)," "Agricultural Implements (almost 11%)," "Yarn & textile. (Almost 10%)", and "Sports Goods. (10%)"

Major countries to which products are exported to:
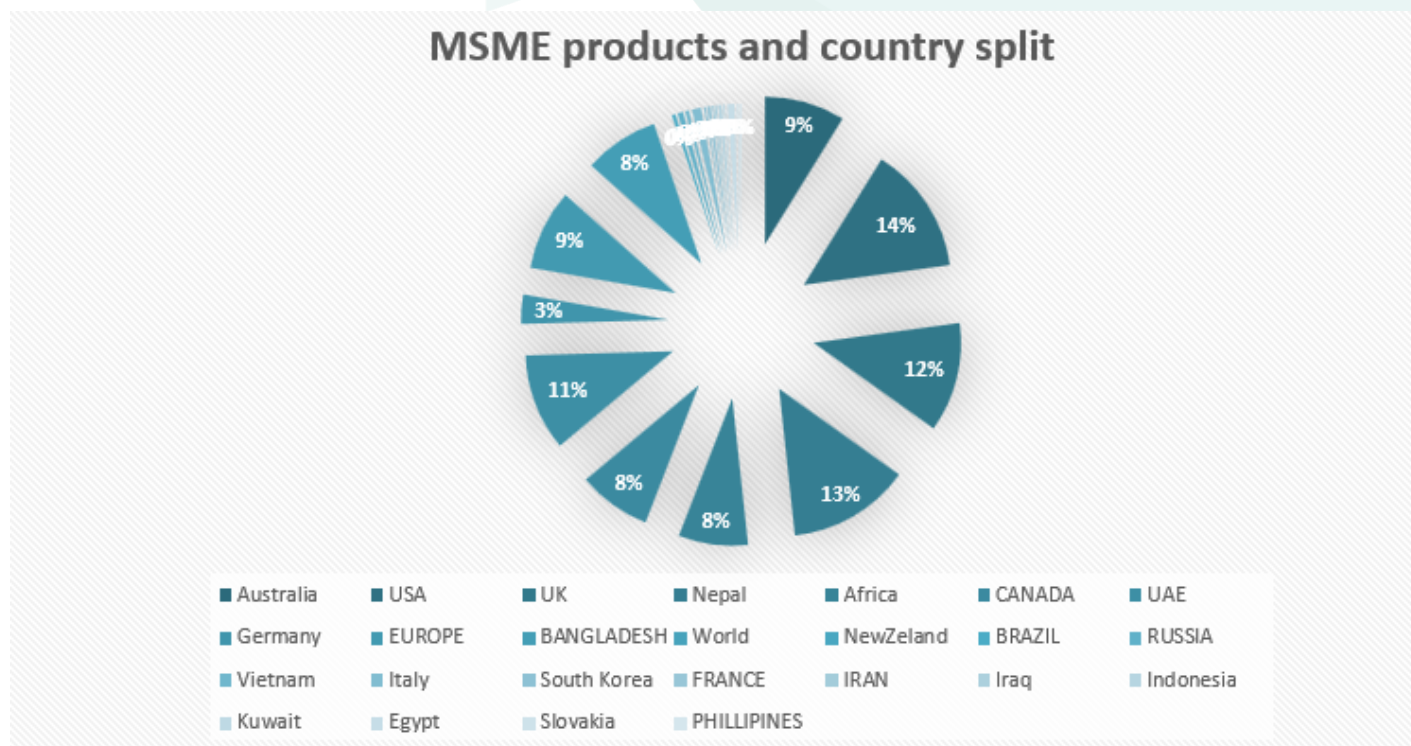
(i) The survey conducted depicts the export countries of the MSMEs supplying their goods in the international market.

(ii) Australia, USA, UK, Nepal, Africa, and Canada stand as significant export markets, while Kuwait, Egypt, Slovakia, and the Philippines contribute to export markets but to a lesser degree.
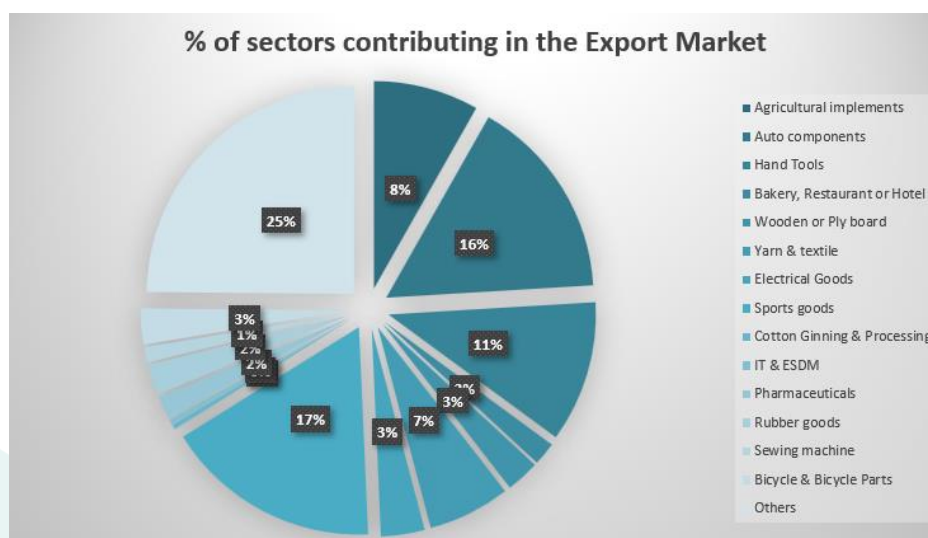
(i) Different countries have varying sectoral focus. For example, the USA has a relatively higher focus on "Auto components," "Hand Tools," and "Electrical Goods."

5) Technologies being implemented largely across sectors.
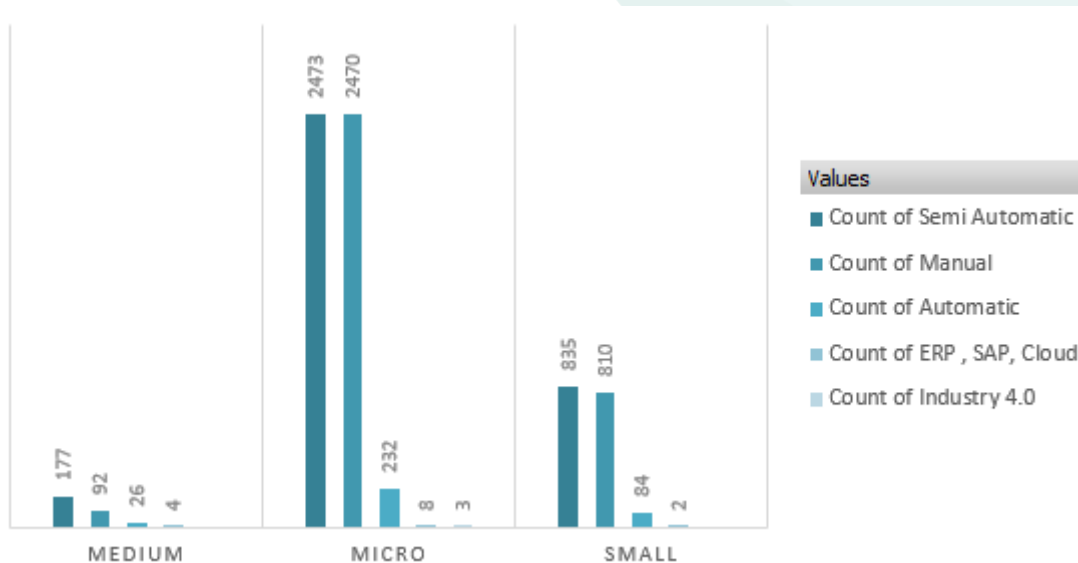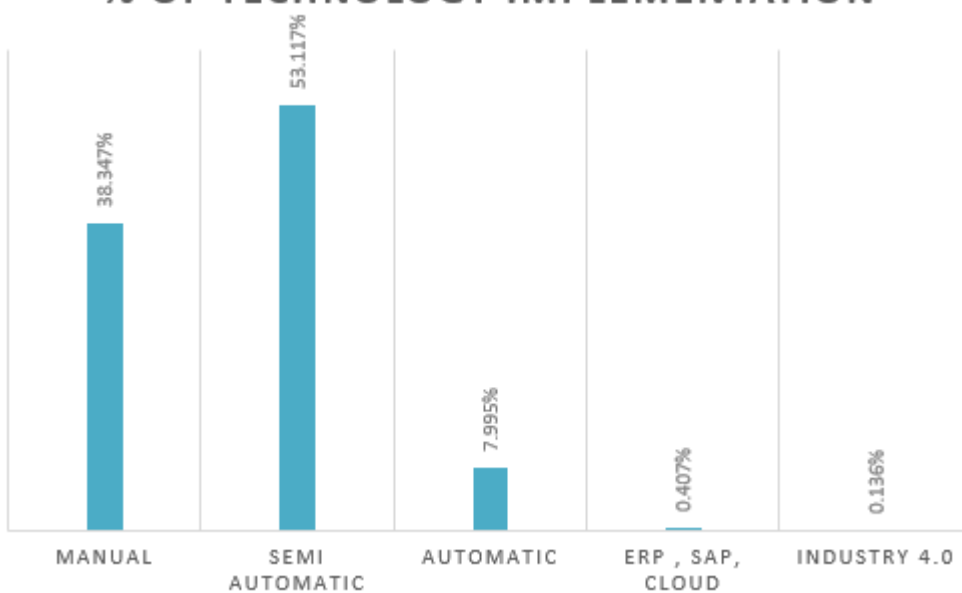
It is observed that only 738 MSME units out of the surveyed units have adopted technology in their business processes. It is observed that out of the 738 units: -

(i)   Almost 53% of the MSMEs make use of the semi-automatic technology.

(ii)   Almost 38% of the MSMEs are still using manual methods or processes.

(iii)   Adoption of solutions for business process management such as ERP, SAP and Cloud is very limited among MSMEs. Less that 1% of the MSMEs have adopted ERP, SAP or Cloud solutions.
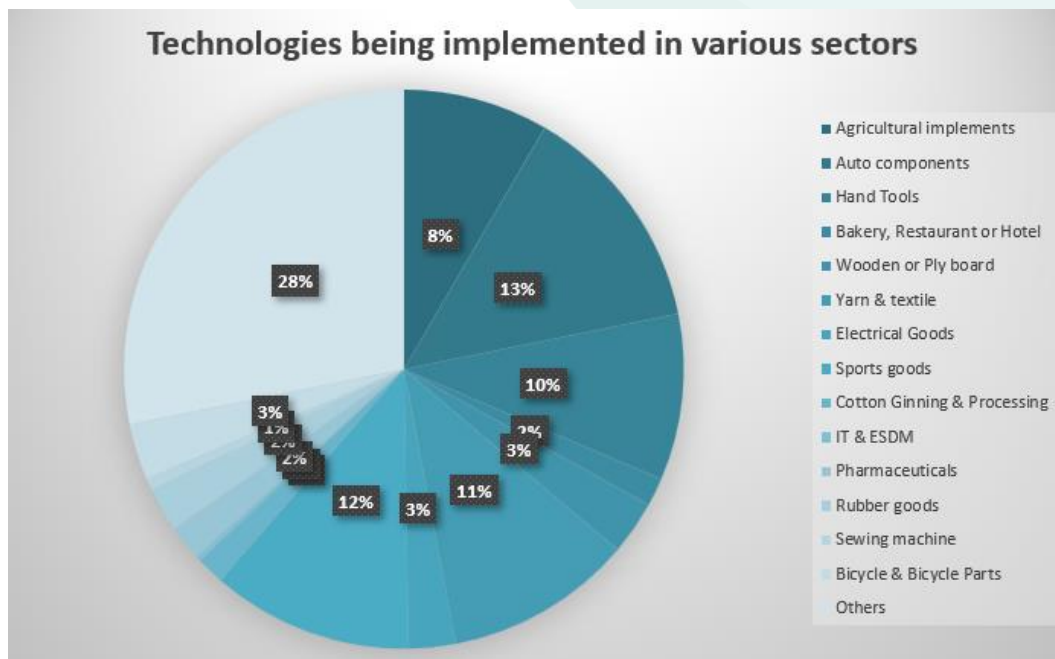
(i)   "Bicycle & Bicycle Parts" sector has the highest adoption of semi-automatic technology among the sectors listed.

(ii)   Sectors like "Agricultural implements," "Auto components," and "Yarn & textile" have notable adoption of automatic technology.

(iii)   Only the "Auto components" and "Bicycle & Bicycle Parts" sectors have reported adoption of technologies like ERP, SAP, or Cloud

(iv)   "Others" sector (28%) that comprising of food processing units and products like door knobs, bricks etc. has the highest adoption of semi-automatic technology solution adopted among the sectors listed.

6) Percentage of MSMEs sector-wise using boilers – type of boilers being used and challenges in operating gas boilers to be listed
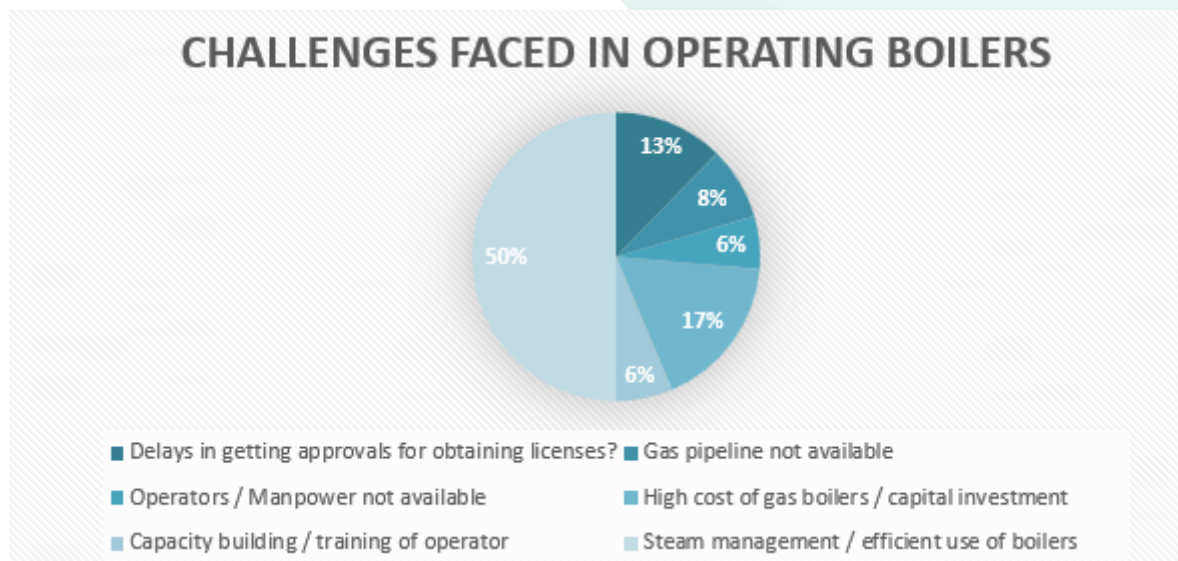
It is observed that 66% of the units surveyed make use of boilers in their manufacturing processes.

(i) The most common challenge faced by MSMEs in operating boilers is "Steam management / efficient use of boilers," with 50% of MSMEs indicating this challenge.

(ii) A significant number of MSMEs (17%) identify "High cost of gas boilers / capital investment" as a challenge, indicating financial barriers to boiler operation.

(iii) "Delays in getting approvals for obtaining licenses" are a challenge for 13% of MSME.

(iv) Operators / Manpower not available" and "Capacity building / training of operator" are challenges for 5% and 6% of MSMEs, respectively.

7) Units reusing treated wastewater (sector-wise mapping) and average quantities being used.
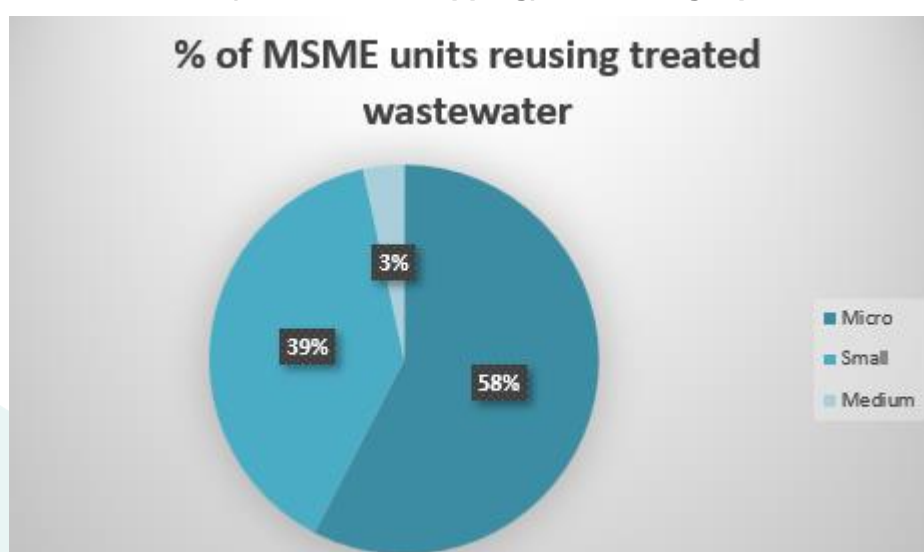
Around 59 units out of 5016 units surveyed i.e. only 1% of the MSMEs make use of treated wastewater. The pie chart above represents 1% of the MSMEs.

(i) Out of the surveyed MSMEs, Medium MSMEs show the lowest reuse percentage of 3%, suggesting that this category might have fewer businesses actively engaged in reusing treated wastewater.

(ii) 58% of surveyed micro units reuse treated wastewater.

(iii) 39% of surveyed small units use treated wastewater.

Treated wastewater is a resource that can not only reduce the operating costs of MSME's but also help in saving a lot of water which becomes potable after treatment. This water if utilized efficiently can help achieve goal of Sustainable Development and Greening as well.

8) **Percentage of MSMEs generating industrial effluents, average quantities of effluents being generated and assessment of the most common methods of effluent treatment sector-wise across industries**
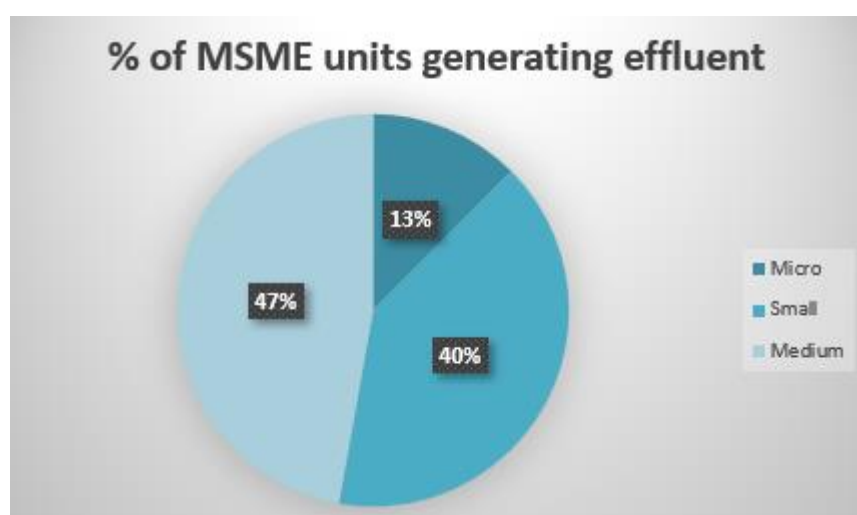
It is observed that 345 MSME i.e., almost 7% units generate industrial effluents. The analysis has been done based on the 7% MSMEs making use of it

(i) Among Micro MSMEs, 13% are generating effluent, which might indicate a relatively lower impact on the environment due to effluent generation.

(ii) Small MSMEs show a higher percentage of 40% in effluent generation, suggesting a greater number of businesses within this category that generate effluent.

(iii) Medium MSMEs have the highest percentage of 47% in effluent generation, indicating a greater likelihood of generating effluent compared to the other categories.

Effluent generation leads to increase in the carbon footprint and also increases the operating costs.

SECTOR-WISE SPLIT OF MSMES GENERATING EFFLUENT

MSMEs generating effluent in different sectors
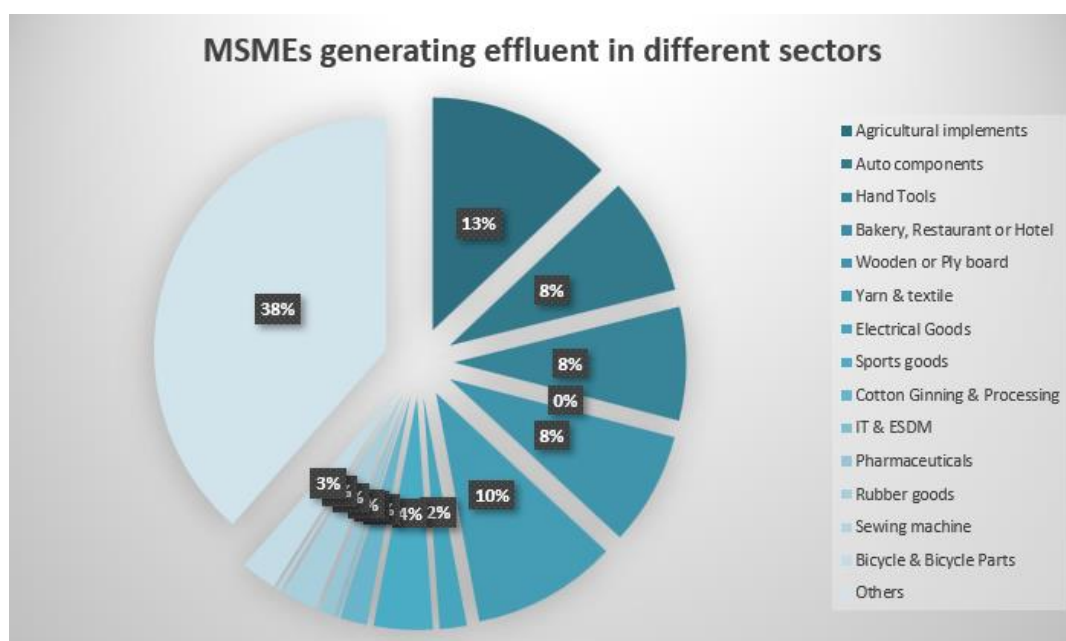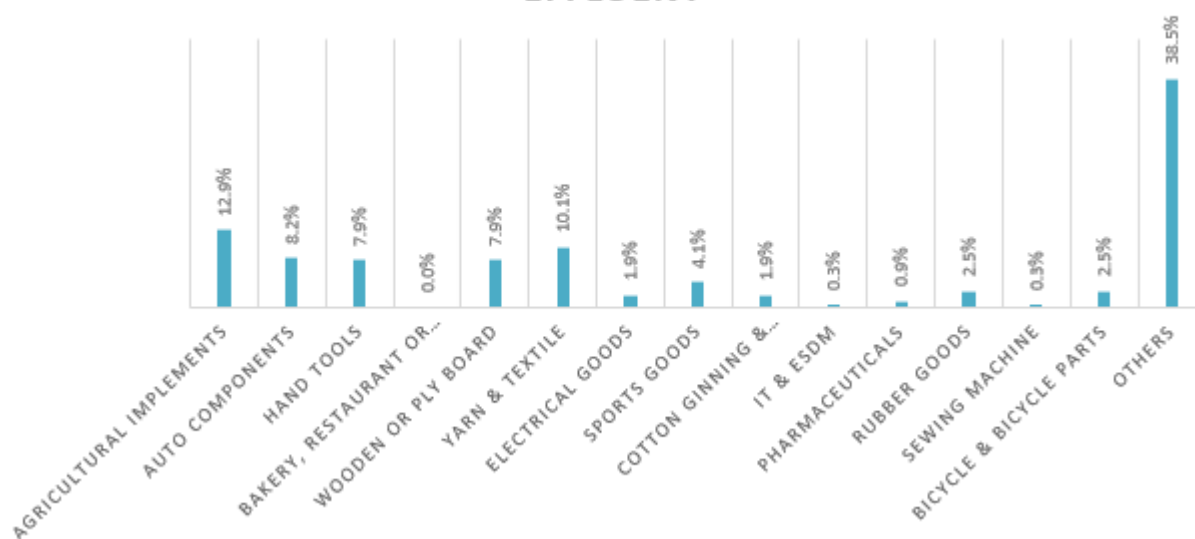
Only 317 units out of 5016 MSMEs i.e., almost 6% of the surveyed MSMEs generated effluent.

(i)   Agricultural implements sector, Auto Components sector i.e. 13% and 8 % followed by Yarn and Textile sector i.e. 10% generated highest amounts of the industrial effluents

(ii)   The sectors least responsible for generating effluents were the sewing machine sector, IT & ESDM sector, Bakery sector and electrical goods sector.

(iii)   Sports goods sector also generated considerable amount of effluents (4%)

(iv)   "Others" sector, that comprise of food processing sector. Manufacturing sector, Transportation sector, etc, contributed to 38% in generating effluent.

Split of Green Technologies - Sector-wise
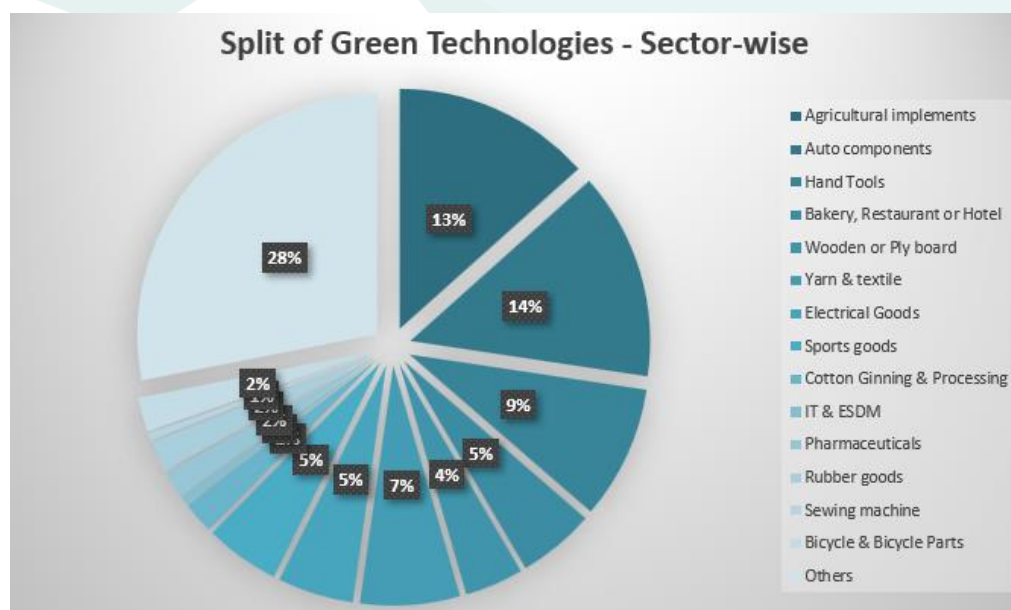
9) Percentage of MSMEs across sectors using green manufacturing techniques for production.

o   Categorization of which methods of green manufacturing are widely used (% division across sectors)

% of Green Technologies adopted by MSMEs
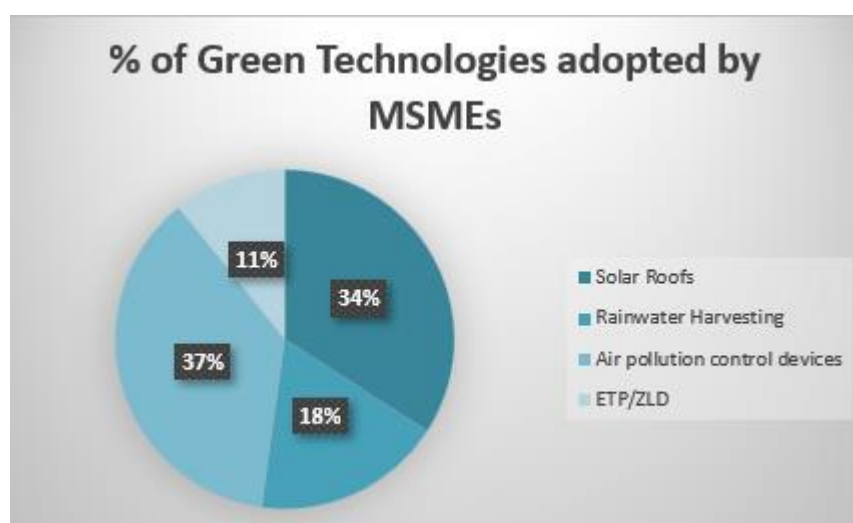
Out of the 5016 MSMEs surveyed, 1604 MSMEs (almost 32%) in total take advantage of the Green Technologies. Out of the 32% MSMEs that are making use of Green Technology:

(i)   34% of them have adopted Solar Roofs and Air Pollution Control Devices

(ii)   ETP/ZLD has been adopted by only 11% of the MSMEs.

(iii)   18% of the MSMEs have adopted Rainwater Harvesting

1367 MSMEs, i.e., almost 27% of the surveyed MSMEs in across multiple sectors have adopted green technology. The analysis has been carried out on the 27% MSMEs that make use of the green technology across sectors as shown above in the pie chart.

(i)   Auto components (14%) is the major sector that has adopted Green Technology.

(ii)   Agriculture implements (13%) followed by hand-tool sector (9%) and bakeries (5%) have adopted the green technology

(iii)   The sectors with low adoption and awareness of green technologies are Pharmaceuticals, Cotton Ginning, Rubber Goods Sector & Bicycle and Bicycle parts Sector.

10) **Awareness across Government Schemes - Percentage analysis sector and district-wise on the awareness levels across all the mentioned schemes**
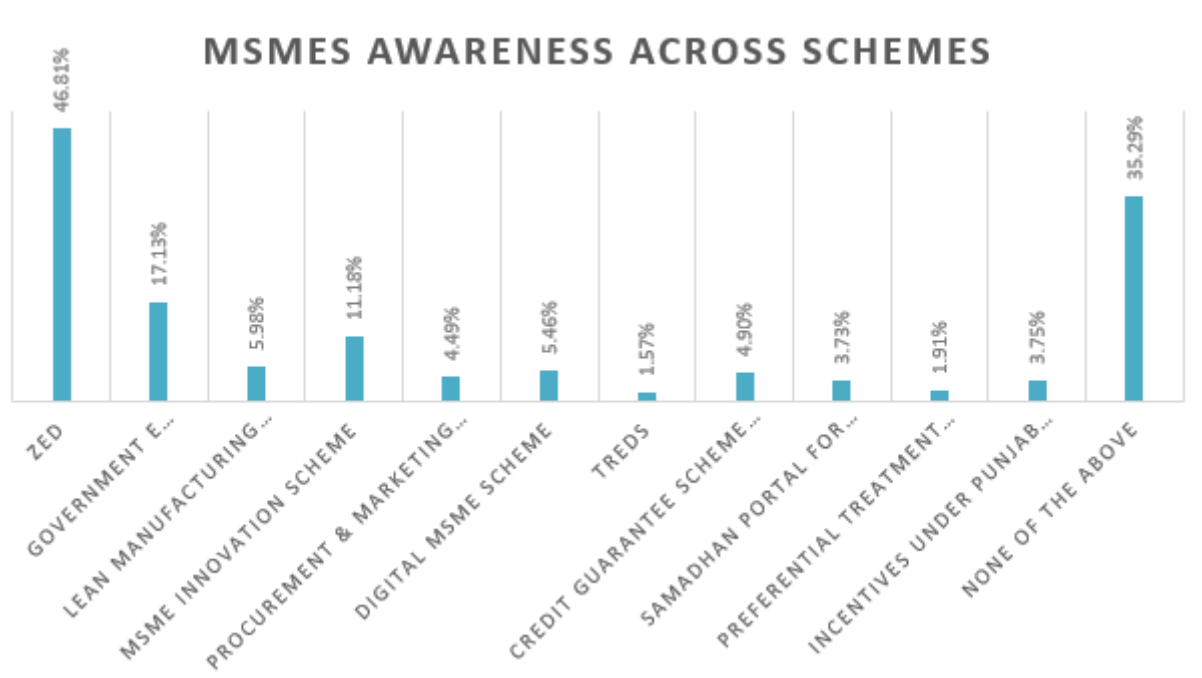
(i)   Around 47% of MSMEs are aware about the ZED Scheme

(ii)   Almost 17% MSMEs are aware of the GeM Portal, providing them with an online platform for sales and procurement.

(iii)   Very few MSMEs are aware of CGTMSE (5%), TReDS (1.57%), Procurement and Marketing Support Scheme and Samadhan Portal for online dispute resolution.

It is observed that there is an overall awareness deficit among the MSME's regarding the key government schemes which can help them avail significant benefits from the Government.

11) **Percentage of MSMEs who have received incentives under Punjab Industrial and Business Development Policy**

% OF MSMES RECEIVING INCENTIVES
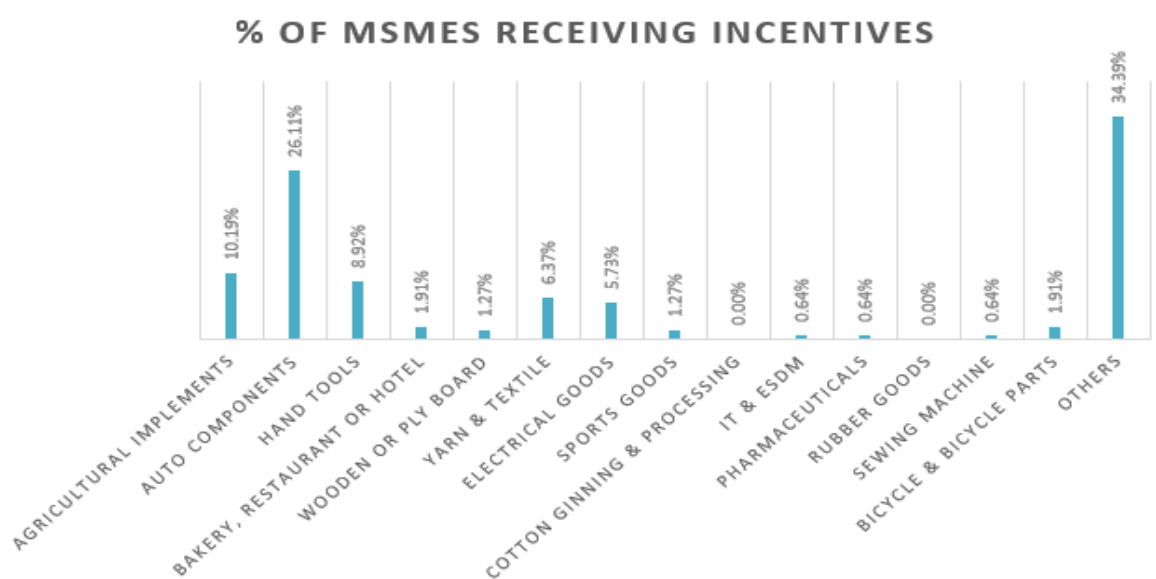
It is observed that only 157 MSMEs out of 5016 units surveyed - about 3% units have received benefits under the Punjab Industrial Policy. From the 3%, it is inferred:

(i)   10% units in the Agricultural Implements Sector received incentives, which suggests that the Punjab Industrial Policy places significant emphasis on promoting agriculture-related industries and food processing activities.

(ii)   9% units in the Hand tools sector received incentives wherein the government aims to support local manufacturing and innovation.

(iii)   The Auto Components and Automotive industry received highest amounts of incentives which is also a key focus sector of Punjab

12) <u>Percentage of MSME units interested in expanding their industrial units in the industrial parks</u>

% OF MSME UNITS INTERESTED IN EXPANDING TO INDUSTRIAL PARKS
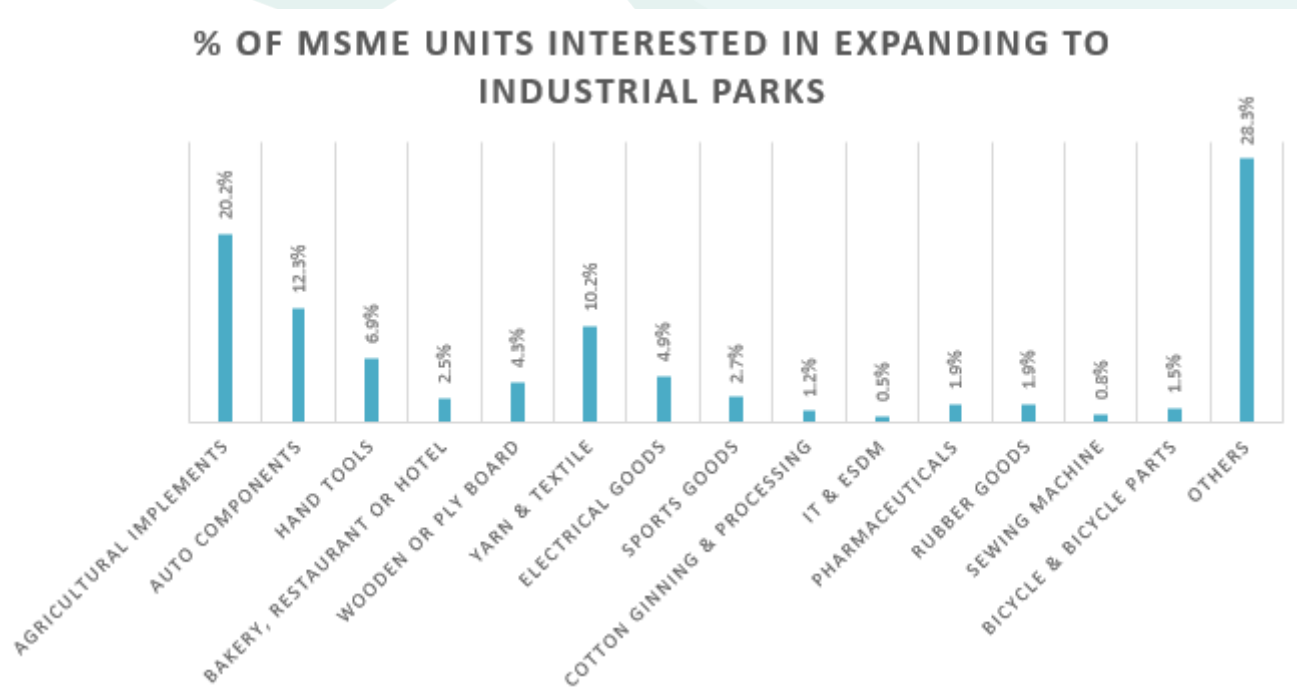
Out of the 5016 MSMEs surveyed, 1721 MSMEs (nearly 34%) were interested in expanding their industrial units to industrial parks. The 34% of the MSMEs across different sectors indicated :

(i) Agricultural implements (20%), Auto components (12%) and the hand tools (7%) sector expressed interest in expanding their operations into the industrial parks.

(ii) IT & ESDM (0.5%) and the sewing machine sector (0.8%) did not show much interest for expanding into the industrial parks.

(iii) Other sectors with almost 28% of the surveyed MSMEs are interested in expanding their units to industrial parks including food processing sector, units from the manufacturing sector, transportation sector etc.

13) Expansion Plans Assessment of the MSMEs surveyed.

SECTOR-WISE SPLIT FOR EXPANSION PLANS
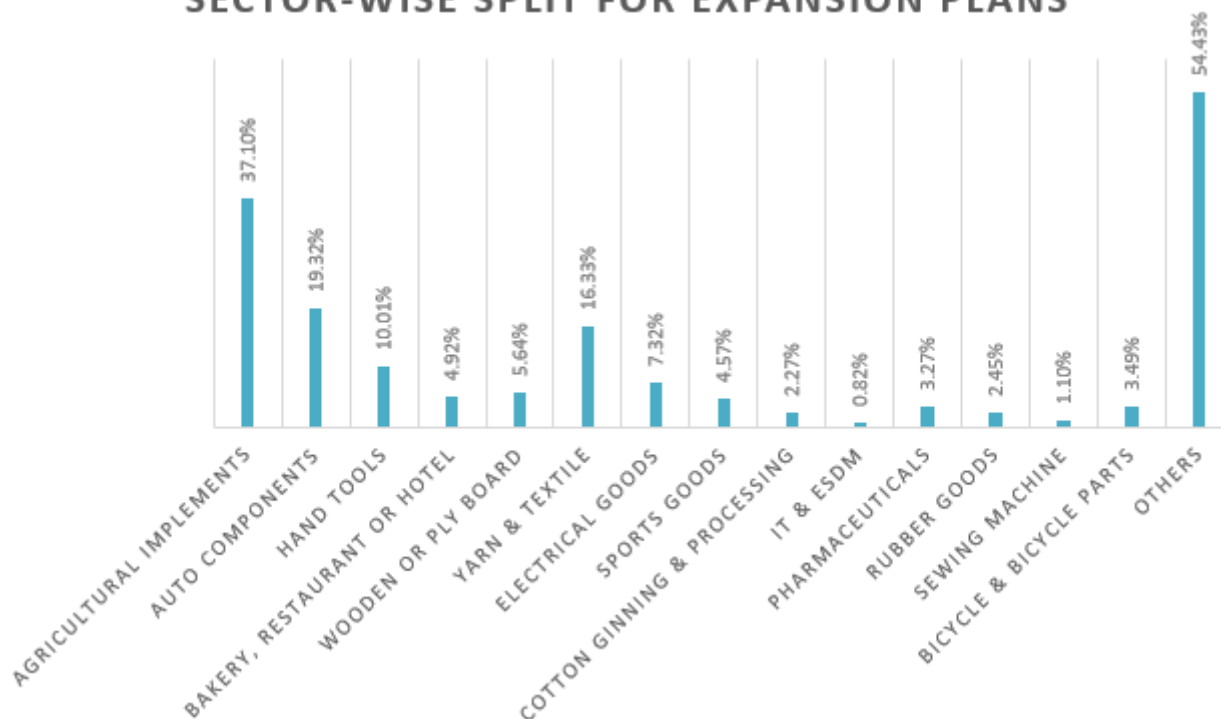
(i)   Units from the Agricultural Implements sector constitutes to 37% of surveyed MSMEs with expansion plans in the next 5 years.

(ii)   Sports Good (almost 4%), IT & ESDM (1%) and Rubber goods (2%) are looking for expansion, however not at a larger level

(iii) Other sectors (54%), that handle the manufacturing of doorknobs, grills and bricks are also interested in expanding in the next 5 years.

Sector-wise % of MSMEs having expansion plans in the next 5 years
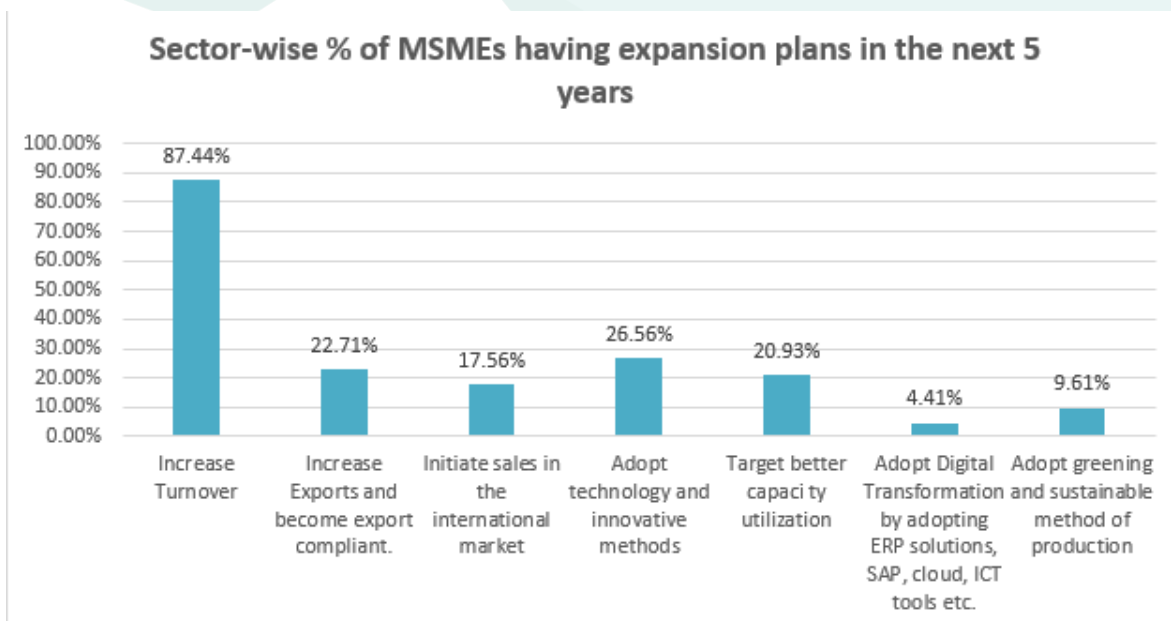
(i) 87.44% MSMEs plan to expand their businesses by way of increasing their turnovers in the next 5 years.

(ii)   22.71% MSMEs are planning to focus on exporting their products.

(iii) A significant portion of MSMEs (26.56%) are planning to adopt technology and innovative methods to drive growth. This might include embracing new manufacturing processes, automation and digital tools

(iv) A relatively small percentage of MSMEs (4.4%) are considering adopting digital transformation strategies such as ERP solutions, SAP, cloud computing, and ICT tools due to limited awareness about benefits and cost implications.

14) <u>Key challenges being faced by the units.</u>

14.1 MSMEs facing challenge in technology adoption

CHALLENGES - TECHNOLOGY

Challenge	Percentage
EXPENSIVE TO ENGAGE LEAN MANUFACTURING COUNCILLORS	5.16%
NON AVAILABILITY OF LEAN MANUFACTURING COUNSELLORS OR CONSULTANTS	8.39%
COPYRIGHTS, DESIGNS, GEOGRAPHICAL INDICATIONS (GI) ETC.	4.94%
LIMITED AWARENESS ABOUT THE PROCEDURES TO FILE FOR PATENTS, TRADEMARKS,	14.65%
LACK OF TRAINING TO ADOPT NEW TECHNOLOGIES.	23.80%
LACK OF INFRASTRUCTURE FACILITIES	30.18%
LACK OF CAPITAL TO INVEST IN TECHNOLOGY SOLUTIONS	34.33%
LACK OF AFFORDABLE TECHNOLOGY SOLUTIONS	58.51%

(i)   The most significant challenge across districts is the affordability of technology solutions i.e. 58.51%

(ii) A substantial percentage of MSMEs face challenges related to the availability of necessary infrastructure to implement new technologies i.e., 30.18%

(iii) A smaller percentage of MSMEs face challenges related to accessing expert advice on lean manufacturing practices i.e.,8.39%.

The analysis shows that technology which is one of the significant aspects of any business has many constraints to its potential utilisation. The largest challenge being "Lack of affordability", which points toa need for support in terms of awareness generation so that MSME's can avail the benefits applicable to them.

14.2 MSMEs facing challenge in marketing their products

CHALLENGES - MARKETING

Challenge	Percentage
Limited awareness about international fairs & exhibitions	12.10%
Limited information in developing de sign strategies and design interventions	10.71%
Limited knowledge about digital marketing tools such as online lead generation, carousel/ad on…	13.40%
Selling the products at a low cost	15.55%
Lack of affordable technology for branding & packaging	16.69%
Limited access to modern packaging techniques	20.06%
Branding &Packaging not meeting the international standards	26.91%
Limited access to market s (e commerce platforms , other online portals such as Paytm, Facebook…	53.61%

Marketing has been a major challenge for MSMEs in the districts of Punjab. The analysis shows that:

(i) 53.61% face issues when it comes to access to markets. MSMEs in various districts have less access to e-commerce platforms and other online portals such as Paytm, Facebook, etc.

(ii) Branding and packaging also do not match upto the international standards. This is one of the major challenges faced by MSMEs in Punjab

(iii) 20% of the MSMEs also have limited access to modern packaging techniques.

(iv) Almost 16% MSMEs have to sell their products at a lower price in order to stay in the market.

It is pertinent to note here that one of the key challenges MSMEs face is access to markets. In the era of 21st Century many of MSME's are unable to utilize the benefits of digitalisation such as E-Commerce platforms.

14.3 MSMEs facing challenge in labour and workforce requirement
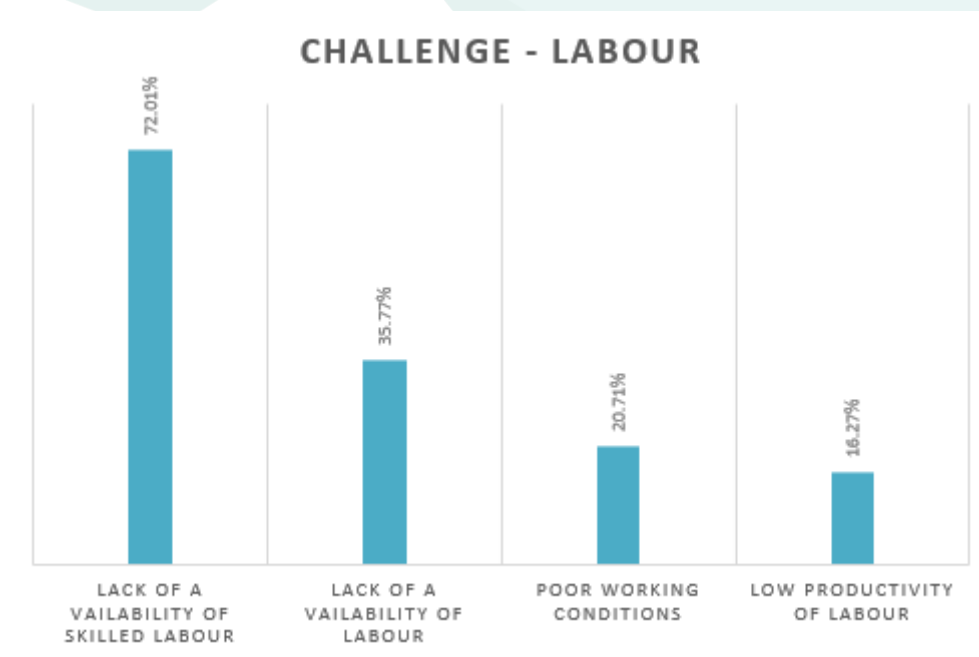
CHALLENGE - LABOUR

(i) Lack of availability of skilled labour comes up as the most crucial challenge faced by the MSMEs. Almost 72% of the MSMEs lack availability of skilled labour.

(ii) Lack of availability of labour, in general also is a challenge for almost 36% of surveyed MSMEs.

(iii) Poor working conditions is a challenge faced by almost 21% of the MSMEs.

(iv) 16% of the MSMEs face the problem of low productivity of labour.

14.4 MSMEs facing challenge in access to finance and credit
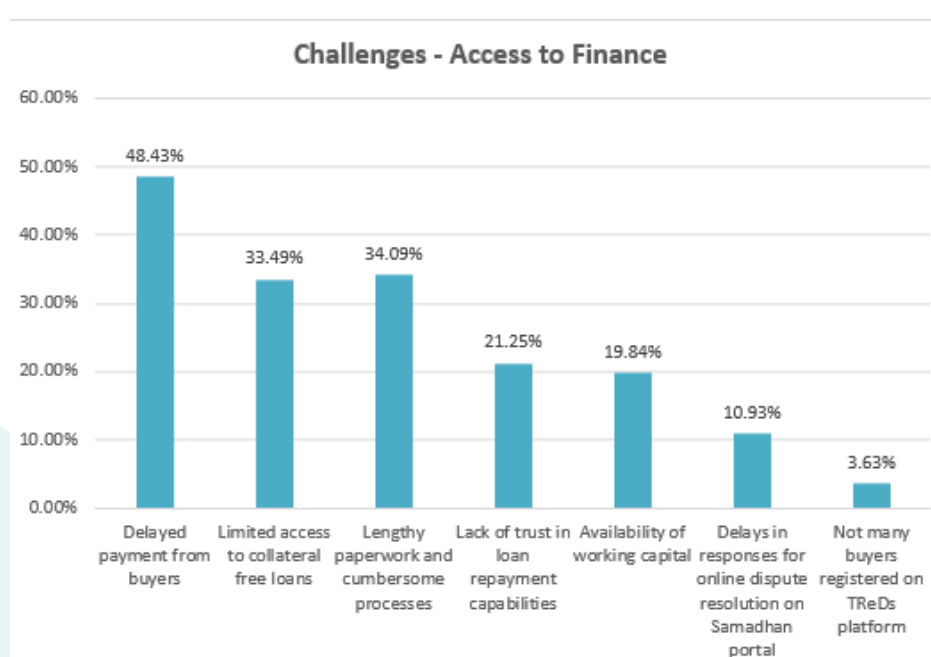
(i) The major challenge faced by MSMEs is Delayed Payment from buyers. It accounts almost 48%

(ii) Lengthy paperwork and limited access to collateral loans also come as challenge faced by the MSMEs

(iii) Not many buyers are registered on the TReDS portal (3.63%), which is a challenge for MSMEs

14.5 MSMEs facing challenge in exports

Challenges - Exports

Challenge	Percentage
LIMITED RESOURCES (FINANCIAL, HUMAN RESOURCE, TECHNOLOGY TO MANUFACTURE EXPORT COMPLAINT PRODUCTS	11.68%
LACK OF INFORMATION ABOUT COMPETITION IN THE FOREIGN MARKETS	15.29%
LIMITED INFORMATION ABOUT THE DEMAND SUPPLY GAP FOR THE CHOSEN PRODUCTS	17.54%
LIMITED KNOWLEDGE ABOUT THE PRODUCTS AND THE INTERNATIONAL MARKET	23.76%
LACK OF KNOWLEDGE ABOUT THE POLITICAL, ECONOMIC, SOCIAL, AND TECHNOLOGICAL ENVIRONMENT	37.68%
LIMITED KNOWLEDGE ABOUT EXPORT PROCEDURES AND COMPLIANCES	54.98%

(i) The most prevalent challenge across districts is the limited understanding of export procedures and compliances (60%).

(ii) A significant percentage of MSMEs face challenges related to understanding the global business landscape including factors such as political dynamics, economic conditions, societal factors, and technological trends in foreign markets (37.68%).

(iii) A relatively smaller percentage, almost 11.68% of MSMEs face resource-related challenges. This could involve constraints in terms of finances, human resources, or technology to produce products that meet international quality and compliance standard.

14.6 MSMEs facing challenge in regulatory compliances

Challenges - Regulatory Burden
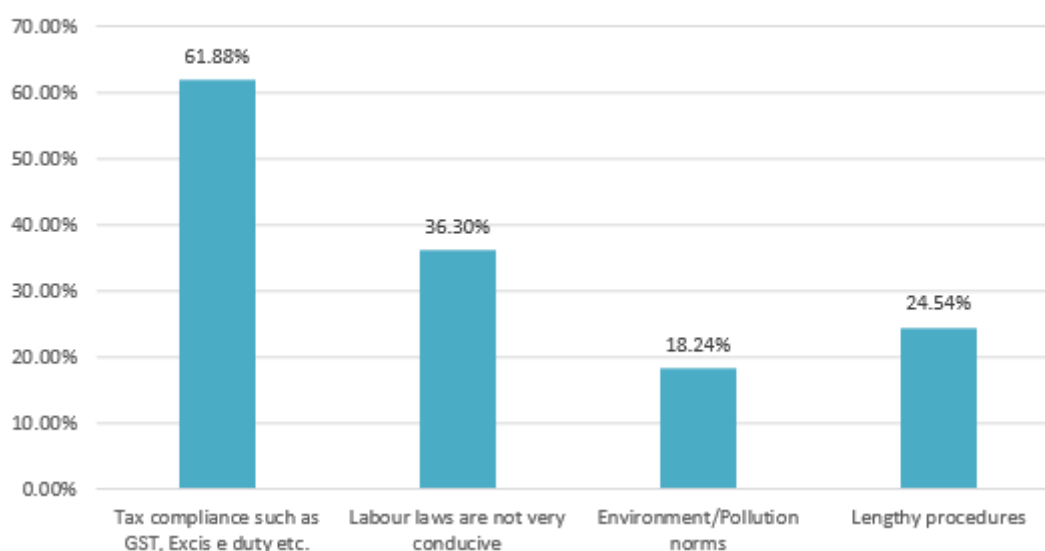
(i)   Tax compliance such as GST and Excise Duty is one of the major regulatory burdens faced by MSMEs in Punjab. Almost 62% MSMEs face this challenge.

(ii) The MSME respondents expressed that the labour laws are not very conducive, it is a challenge for almost 36% of the MSMEs surveyed

(iii) Almost 25% MSMEs consider lengthy procedures as a challenge for their expansion plans.

(iv) Environment and pollution norms are a hindrance to almost 18% of the MSMEs.

14.7 MSMEs facing challenge in adoption of Green technology and Sustainable Manufacturing practices

Challenges - Greening & Sustainable Production
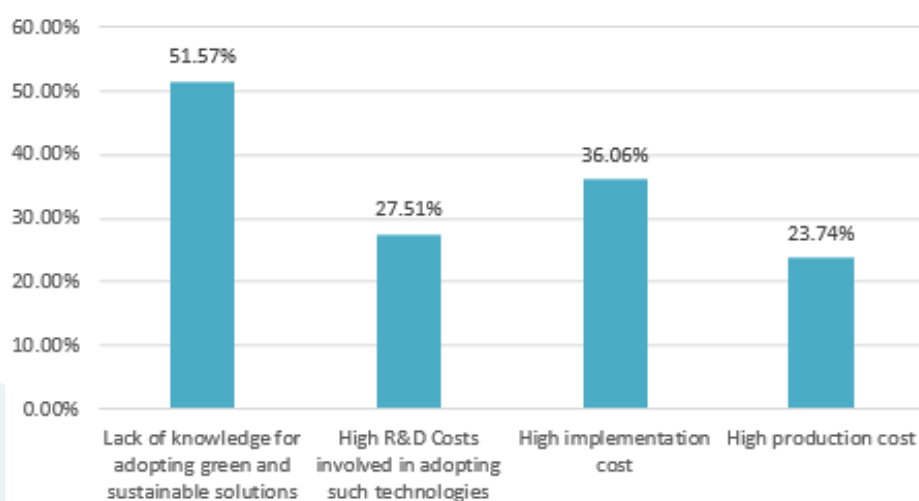
(i)   The most significant challenge across districts is the lack of knowledge about adopting green and sustainable solutions. It accounts to almost 52%.

(ii) A substantial percentage. Almost 28% of MSMEs face challenges related to the high costs associated with research and development (R&D) when adopting green and sustainable technologies.

(iii) 6% of MSMEs find the implementation costs of green and sustainable solutions to be high.

(iv) Challenges related to high production costs are also prominent.

Adopting Green and Sustainable solutions is one of the top priorities of the Government today. The analysis indicates that there is an urgent need to create awareness among the MSME's to adopt green technologies which can help curb the carbon emissions.

14.8 MSMEs facing challenge in digitalisation

Challenges - Digital Transformation
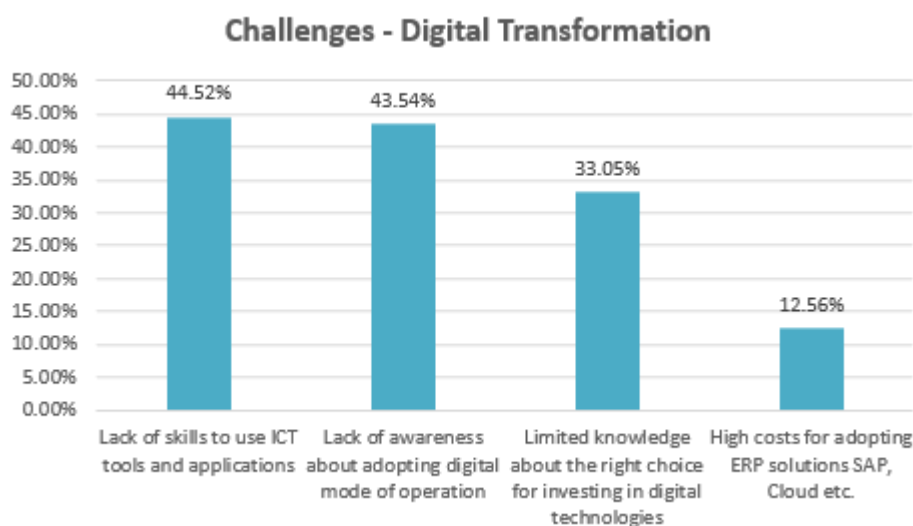
(i) The most prominent challenge across districts is the lack of skills required to effectively use information and communication technology (ICT) tools and applications (44.52%)

(ii) A significant percentage (43.54%) of MSMEs struggle with a lack of awareness about adopting digital modes of operation.

(iii) Many MSMEs face challenges related to selecting the right digital technologies to invest in.

14.9 MSMEs facing challenges related to land
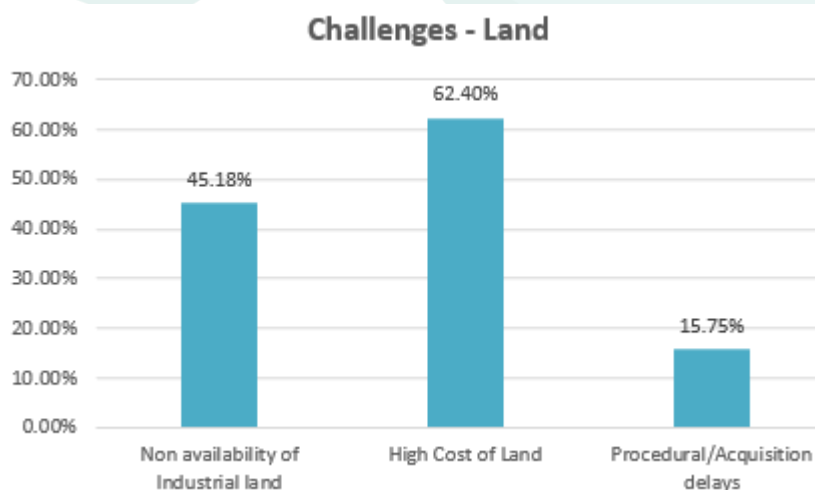
Challenges - Land

(i) Non availability of Industrial land (45.18%): This challenge is significant across districts, suggesting that many MSMEs face difficulties in finding suitable industrial land for their operations.

(ii) High Cost of Land (62.4%): The most prominent challenge across districts is the high cost of land

(iii) Procedural/Acquisition delays (15.75%): While a smaller percentage of MSMEs consider this challenge, it's still noteworthy that procedural or acquisition delays are a concern for some.

District-wise representation of issues related to land:

S.No	Districts	Non availability of Industrial land	High Cost of Land	Procedural/ Acquisition delays
1	Amritsar	184	169	168
2	Bathinda	229	27	-
3	Fatehgarh Sahib	17	119	13
4	Fazilka	23	48	1
5	Hoshiarpur	123	91	42
6	Kapurthala	18	63	4
7	Malerkotla	23	35	1
8	Moga	65	33	70
9	Pathankot	77	52	3
10	Rupnagar	3	57	8

11	Sangrur	6	33	2
12	Tarn Taran	38	10	45
13	Shahid Bhagat Singh Nagar	20	58	4
14	Patiala	223	810	82
15	Sahibzada Ajit Singh Nagar	308	450	25
16	Sri Muktsar Sahib	97	9	-
17	Mansa	14	18	-
18	Ludhiana	490	488	174
19	Jalandhar	195	324	53
20	Gurdaspur	90	101	17
21	Ferozepur	8	19	74
22	Faridkot	13	90	2
23	Barnala	2	26	2
	Total	**2,266**	**3,130**	**790**
	% on total MSME Units	**45.18%**	**62.40%**	**15.75%**

15) <u>Assistance required by the units.</u>

15.1 Support required by MSMEs in Technology Adoption
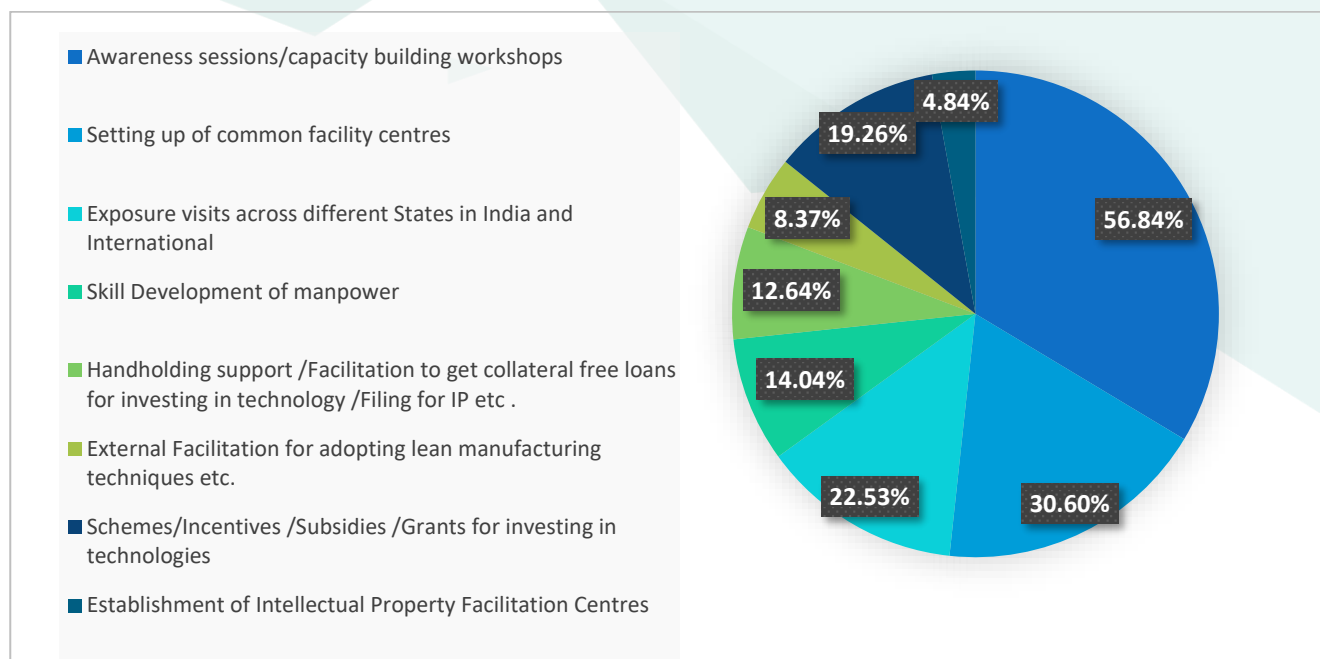
(i)   More than 56% of the MSMEs surveyed require awareness and capacity building sessions to make informed decisions for adopting technology. About 22% of the MSMEs also need support in the exposure visits across states and international destinations to become competitive in the global value chain

(ii) 30% MSMEs have expressed requirement of common facility centres which can reduce their costs and 19% in government support for financial incentives through schemes, incentives, subsidies etc.

15.2 Support required by MSMEs in Marketing

Legend:
- Assist in establishing market linkages
- Training & Skill Development for adopting modern branding & packaging techniques
- Expert consultants for assisting/guiding on designing, branding, developing product portfolio, packaging , setting the right price mechanism , digital marketing tools etc.
- Access to affordable technology for packaging/branding
- Setting up of packaging clusters
- Collaborate with designing/packaging institutes to get expert advice and utilize their common facilities at a nominal cost
- Financial Assistance for buying required machines/technology
- Development of Marketing Haats
- Information and assistance in participating in domestic and international fairs
- Exposure Visits

Pie chart values: 45.47%, 32.12%, 24.80%, 14.00%, 7.91%, 12.08%, 11.70%, 10.07%, 10.87%, 11.56%
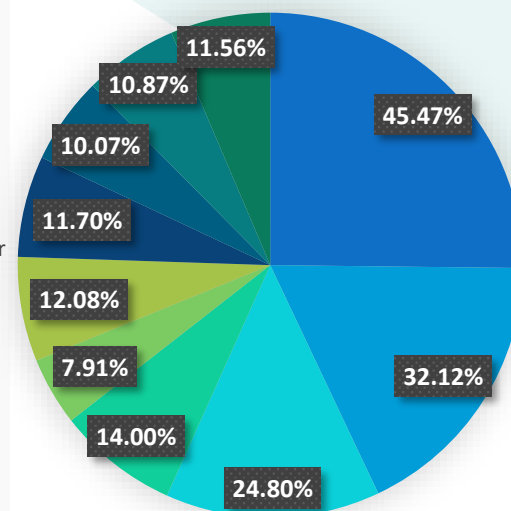
(i) 45% MSMEs have mentioned about support required in establishing market linkages.

(ii) About 32% MSMEs require training and skill for adopting modern branding and packaging techniques

(iii) About 25% MSMEs need facilitation and handholding support for designing, branding, developing product portfolio, packaging, setting the right price, digital marketing tools etc.

15.3 Support required by MSMEs for Workforce

Legend:
- Skill Development training of labour
- Upskilling and re-skilling of existing labour
- Better working conditions
- Offer adequate social protection
- Ensure the workforce is aware about all the schemes and benefits available to them

Pie chart values: 11.52%, 14.37%, 46.03%, 29.35%, 36.64%
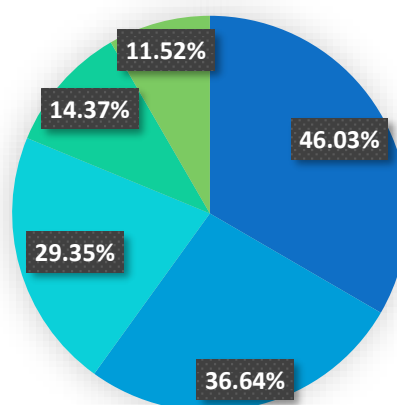
(i) 46% of the surveyed RMSMEs have mentioned requirement about skill development and training of labour to build a talent pool for MSMEs in the state.

(ii) Up-skilling and re-skilling of the workforce is another major need of 37% MSMEs.

15.4 Support required by MSMEs in Access to Finance

■ Awareness and workshops about various schemes

■ End to end Handholding support/assistance in getting access to loans

■ Timely disbursement of loans

■ Ensure timely payment from the buyers

■ Increase the amount of loans and extended guarantee

■ Special assistance for women entrepreneurs, SC, ST, OBC etc.

■ Timely online dispute resolution through Samadhan Portal

■ Buyers should be mandated to register themselves on TReDS

■ Timely disbursement of funds from PSUs and mandating them to register on TReDS

3.27%
8.0
7.22%
6.80%
18.70%
19.76%
22.59%
30.48%
55.00%

(i)   Major requirement of 55% of the MSMEs surveyed is awareness and information dissemination workshops about various government schemes providing assistance in accessing to loans and credit.

(ii)   Handholding support throughout loan process and assistance in getting loans is another requirement of about 30% of the MSMEs.

(iii)   Special assistance for MSMEs owned by women entrepreneurs and SC, ST, OBC etc. in providing access to credit to 7% of the MSME respondents.

15.5 Support required by MSMEs in Exports

■ Export councillors /facilitators to guide on the export compliances, market demand, products to be exported etc.

■ Handholding support in all the export related formalities

■ Common facility centres for R&D/testing of products

■ Access to resources, finance and technology to manufacture export ready products without any defect

■ Set up an export cell

9.01%
19.18%
20.30%
30.06%
55.58%

(i)   About 56% of the MSME respondents require awareness, information and guidance about the export process, compliances involved, market demand, products, export destinations etc. to be able to start exports.

(ii)   30% MSMEs require handholding support in the compliances and formalities related to exports.

15.6 Support required by MSMEs in Regulatory Compliances

Legend:
- Integrated online portal which will act as a one stop solution to all regulatory compliances that needs to be followed
- Handholding/Consulting Support /External Facilitation in applyingfor various schemes/benefits and obtaining the same
- Simplification of the process, less documentation/paperwork
- Simplify procedures for compliance of labour laws, environmental laws etc.
- An effective and efficient grievance redressal mechanism
- Timely resolution of grievances

Pie chart values: 46.47%, 33.91%, 32.10%, 17.32%, 8.19%, 8.63%

(i)   46% of the MSMEs surveyed have expressed requirement about a single window portal for all the regulatory compliances

(ii)   Facilitation support for MSMEs in applying for benefits under various central and state government schemes is a major requirement stated by about 34% MSMEs

(iii)   Simplification of the processes, documentation and reduction of the compliance burden is another major requirement of 32% of the MSME respondents of the state

15.7 Support required by MSMEs in Greening and Sustainable Manufacturing

Legend:
- Set up Research & Development facilities or leverage the existing R&D facilities in the State
- Adoption of energy saving and waste management techniques /technologies to manufacture environment friendly products
- Skill Development of human personnel to use the modern technology
- Policy Amendments to made in terms of additional Incentives/Schemes for adopting sustainable production techniques
- Handholding Support for end to end execution from applying for loan, information about which techniques and technologies to use, GoI schemes for the same etc.
- Organize Exposure Visits
- Initiate Mentorship programmes for holistic development

Values: 5.42%, 16.73%, 14.47%, 15.85%, 31.62%, 30.24%, 44.10%
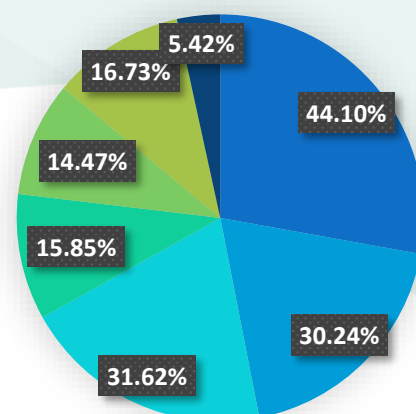
(i) 44% of the MSMEs surveyed have stated the need for research and development facilities which would be leveraged to become more competent, would help in innovation and adoption of new technology.

(ii) 30% MSMEs have expressed interest in adopting sustainable manufacturing techniques in energy saving, waste management, resource and material management etc. to manufacture environment friendly products and become more efficient.

(iii) Assistance in skill development and training of the workforce to use modern technology is another significant requirement of about 32% MSMEs.

15.8 Support required by MSMEs in Digital Transformation

Legend:
- Digital literacy and capacity building for software interventions, automatic procedures
- Awareness about various ICT tools, their benefits etc.
- Assistance in integrating digital tools and technologies in production and business processes

Values: 21.51%, 31.78%, 58.71%
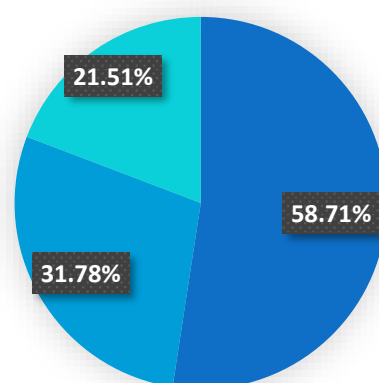
(i) About 59% MSME respondents require awareness and digital literacy about software and IT interventions to make their business processes more efficient by reduced manual intervention and processes.

(ii) 32% MSMEs seek support in acquiring knowledge about the benefits of adopting the right solution such as ERP and ICT tools as per requirement. 22% MSMEs need implementation support and handholding in adopting the technology solution.

3) **Consultation with the Industrialists**

Detailed discussions were held with the industrialists in Jalandhar, Phagwara, Ludhiana and Amritsar in order to obtain valuable insights on MSME scenario sectors, with a focus on proposed interventions under RAMP for Punjab. Broad details of the consultations are as follows: -

S. No.	Organization Name	City	Key takeaways / suggestions
1.	Basant Autotech LLP	Jalandhar	• Technology upgradations for sectors such as Auto Component, Hand tools, Cox and Volves, Agriculture Aerospace should be focussed upon. • In order to obtain upgradation in certification of ZED Scheme require recurring improvements in ERP Solutions, regulations and online platform. • With a total of 15,000 MSME's in Jalandhar in auto sector and approximately 3,25,000 in Pan Punjab, only 5% units have adopted ERP solutions • Digital GIS (Geographic Information System) for mapping the industries and MSME's at the State Level is required.
2.	Oaykay tools	Jalandhar	• Hand tools sector must be focused on, under Green initiatives. • Nickel being a 100% imported material, requires solutions to stop the hazardous waste generation from the industry. The

			recovery of one unit of Nickel costs around 25 lakhs. • Financial assistance for adopting good ERP solutions for ZED Bronze certifications. • The CNG's burner boilers require the nationality for certification, machines & motors save the carbon footprints and energy efficient replacements of burner on and off surface. • Power tools are currently not implemented in India. Focus on developing center institute and government tool for this technology is needed.
3.	Savi International	Jalandhar	• Labour skilling under the sports industry is required. • To improve the potential and to scale up the sports industry, major focus on skilling for stitching would require international experts from countries like Germany, UK etc. • Exposure visits and International Sports workshop must be conducted. • Under FIFA Approval status, India has only 6 Certifications, while China has 100 and Pakistan has 28 of them. FIFA Certifications and Protective equipment are required for the enhancement of this industry.

4.	Sukhjit Starch	Phagwara	• The major focus of the industry is on export opportunities of food items. • The industry is linked to international markets in UAE, Middle East and so on. • Freight incentives needs to be improved.
5.	Chamber Of Industrial & Commercial Undertaking, Ludhiana	Ludhiana	• Centre of Excellence for Manufacturing through Supporting MSMEs in New Product Development or improvising the Products needs to be attained. •
6.	R&D Bicycle Testing Lab	Ludhiana	• Upgradation and expansion of existing facility to enlarge the service basket is required. • Setting up a new R&D and testing facility to cater to e-bike/cycle segment is required.
7.	Ganga Acrowool	Ludhiana	• Export Promotion Chamber is needed for the industries to handhold MSMEs for facilitating exports. • A Digital interface can be developed to gather the interest and provide assistance digitally.
8.	• Kwality Pharmaceutical, Amritsar • Focal Point Industries Development Association • Pradesh Vyapar Mandal • Maxis Technology	Amritsar	• A professional agency should be hired and placed in each focal point of Punjab to handhold MSME's with regard to any regulatory, incentive support.
9.	• IIM -Amritsar	Amritsar	• Proposals were requested to for the development of MSME ecosystem in

			Punjab and in line with the objectives of RAMP.
10.	• FICCI FLO-Amritsar • Dr. Ruchika Grover- FICCI FLO, Amritsar	Amritsar	• Preparation of a plan to work collaboratively with Department of Industries & Commerce, Punjab to create awareness among women MSMEs is required

4) Focused Group Discussion with the GM DICs, Industry Associations and SHG's

A focused group discussion in the 23 districts in the State of Punjab was held which had representatives from Self-Help groups, members from industry associations and GM DICs of all concerned districts. The broad discussion points of these stakeholder discussions are tabled as below:

The broad level issues discussed during the group discussions are provided below:

1. **Skilled labour and training:**

* A scarcity of skilled labor, particularly among women workers, poses complexities for the production process.
* Once trained, employees often seek opportunities elsewhere for improved employment prospects and compensation.
* Providing local labor with 6 to 8 months of training might be perceived as an added expense for MSMEs, resulting in limited skill development opportunities for workers.
* Need for comprehensive skill training and capacity development initiatives.
* Attention should be directed towards updating machinery in ITIs and addressing the shortage of manpower to ensure adequate skill training at the district level.

* The shortage of labor is a substantial hurdle, as local workers often exhibit disinterest in employment opportunities. The presence of outdated machinery and a shortage of manpower in ITIs obstructs skills training at the district level.

* A training institute to skill local labor is required, given the scarcity of skilled workers and the reliance on costly labor from other regions like Delhi and Ludhiana

2. **Women entrepreneurs and SHGs**

- Self-help groups (SHGs) encounter challenges that could be addressed by introducing women's training programs near their homes and communities.
- It would be beneficial if the government could support with branding and marketing for goods produced by SHGs. There's a gap in knowledge and awareness about online sales among them.
- Members of self-help groups brought up their lack of awareness about various government schemes related to SHGs.
- The SHGs struggle due to the rate of the products as they are unable to compete with the market rates.
- There is a need for more targeted capacity-building programs and increased awareness about policies and advantages offered by the MSME scheme.

3. **Export**

- Industries within this district indeed aspire to broaden their exports, and supplying guidance and assistance for export endeavours is pivotal for extending the influence of MSMEs in global markets.
- To enhance export promotion efforts, it was proposed that the government focus on developing a comprehensive database of buyers and sellers. Additionally, supporting new exporters by providing them with relevant knowledge about the requirements of being an exporter was recommended.
- Capacity building across various schemes, especially awareness amongst exporters

4. **Greening**

- The government's involvement is essential to enhance solid waste management practices, ensuring a cleaner and healthier environment.
- To encourage sustainable practices in the industry, offering a subsidy of more than 50% for green energy initiatives could be considered.
- Regarding electricity-related concerns, it was recommended that the government invest in infrastructure to minimize transmission losses. Furthermore, offering incentives to encourage the adoption of green energy was suggested.
- Currently, the higher cost of solar systems relative to commercial power discourages industrialists from adopting solar energy for their operations.
- Integration of sustainable practices and eco-friendly technologies into the program was recommended to encourage MSMEs to reduce their environmental impact.

5. **Capacity building of MSMEs and Govt. Officials**

- Efforts should be focused on implementing comprehensive capacity-building training programs accompanied by dedicated guidance to address capacity gaps and enhance skills across all levels.
- Industries face considerable time consumption due to the extensive paperwork and documentation needed to initiate an enterprise.
- MSMEs could greatly benefit from the provision of subsidies, clearly outlined schemes, streamlined sales processes, and simplified procedures.
- MSMEs encounter difficulties when dealing with official paperwork and extensive documentation required by government officials. These delays and the demanding documentation procedures hinder their access to financial assistance and subsidies.
- Enhanced coordination and support are necessary for more effective capacity-building trainings at all levels, aimed at refining skills.
- Capacity building programs and skill development initiatives were identified as essential to enhance the capabilities of MSMEs and their workforce.
- Clear guidelines and proper implementation of the new policy in Punjab were highlighted to address issues and problems faced by MSMEs.
- Simplification of licensing, permission, subsidies, and Change of Land Use processes were highlighted as necessary improvements.
- Institutional Strengthening of DIC's, Capacity Building of the DIC Staff, technical skills to prepare the DPR etc.

6. **Infrastructure Augmentation**

- Challenges persist in the form of increased electricity expenses, limited understanding of diverse strategies, and the absence of enforceable legal agreements among involved parties, underscoring the need for solutions.
- Acquiring a Change of Land Use (CLU) can be quite challenging for industrialists, as it involves obtaining multiple approvals from various authorities. This contributes to a process that is both lengthy and intricate, ultimately making business operations more demanding.
- Concerns have been raised by Agro MSMEs about the expensive food sample testing process. While MSME Facilitation Centers are present in the district, most of them are experiencing understaffing issues.
- Efforts to tackle transportation-related concerns will enhance connectivity and alleviate logistical difficulties within the district.
- There is a lack of exhibition centers to display the products manufactured by the industries and there is a lack of marketing support from the government as well.

- There must be a Standardized accreditation from the Punjab government to recognize the product manufactured and made in Punjab.

- Electricity Problems like power cuts without prior information are prevalent, especially in the commercial areas.

- New industry zones are developed in rural areas, facing the power cut issues and due to connectivity of links roads, facing the problem of roads and safety for carrying goods.

7. **Delayed payments and access to credit**

- Limited awareness exists concerning loan schemes and the procedure for accessing loans within self-help groups and MSMEs.

- Simplifying the process and providing accessible guidance would be beneficial. Securing loans without collateral can prove to be a challenge.

- Loans are readily accessible through private banks, whereas securing them from government banks can be more challenging.

- Payment delays also remain a prominent concern.

- Increased interest rates and limited knowledge about diverse schemes. The MSMEs' advancement is being impeded by banks' unfamiliarity with or reluctance to participate in various schemes.

- Awareness and utilization of recourse mechanisms, such as MSME Samadhan, for resolving payment disputes need to be enhanced, along with faster resolution of cases.

- Streamlining documentation processes and educating MSMEs on required paperwork is crucial to facilitate the filing and resolution of cases through MSME Samadhan and MSEFC

- Simplifying the online dispute resolution mechanism and increasing awareness about it were highlighted as areas for improvement.

8. **Government Schemes**

- Limited awareness exists concerning loan schemes and the procedure for accessing loans within self-help groups and MSMEs.
- The district's lack of awareness about CGTMSE schemes prevents them from utilizing its benefits.
- The district's export potential is curtailed by a scarcity of knowledge in this area, coupled with a lack of awareness about the various schemes offered by the Government of India
- Lessening the fees associated with the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) assists in alleviating the financial strain on MSMEs.

- Simplifying documentation requirements and increasing awareness of government schemes like CGTMSE and PMEGP are vital for SMEs' access to benefits.

9. Technology upgradation

- Arranging seminars with a technology focus could significantly contribute to the comprehensive progress and enhancement of MSMEs.

- Challenges persist for MSMEs when it comes to adopting modern technology and installing new machinery, primarily due to funding constraints and bureaucratic obstacles.

- Lack of funds is causing hesitation among MSME units to embrace new and environmentally friendly technologies.

- Technology hubs and centers were recommended to promote collaboration and knowledge sharing among MSMEs, fostering entrepreneurship and technology adoption.

- Lack of market knowledge and digital literacy, coupled with limited infrastructure, hinder MSMEs' participation and technology adoption in the marketplace.

- Encourage MSMEs in adoption of Industry 4.0

- Professionalism & Certification: Elevating standards through certifications like ZED, bolstered by ERP systems, online regulatory platforms, and sustained improvements.

10. Awareness Generation and Facilitation

- During discussions, the hurdles related to processing files and obtaining approvals from various departments were acknowledged. To improve efficiency and simplify administrative processes, the idea of implementing a cohesive single-window system was suggested.

- Establishing a dedicated mentorship network and advisory system was suggested to provide comprehensive support to MSMEs.

- Knowledge sharing sessions/exposure visits about the technology, quality, process of manufacturing etc.

- Implementing a State-level digital GIS for comprehensive mapping of industries and MSMEs.

11. Exposure Visits

- There is a lack of exhibition centers to display the products manufactured by the industries and there is a lack of marketing support from the government as well.

- Exposure visits must be held for association members for capacity building with the motive of sharing technological advancement between and within states.

- An outreach plan involving strategic partnerships and communication efforts was discussed to identify and mobilize MSMEs effectively.

SECTION 4

Main Challenges/Key Constraints to MSME Growth

Section 4: Main challenges/Key constraints to MSME growth

MSME is a budding sector in the country and is still at a nascent stage. There are multiple challenges MSME industry faces at large in the country which can be categorized as below: -

(i)   There is a need for the formulation of targeted policies and their subsequent implementation in the areas of infrastructure development, formalisation, technology adoption, backward and forward linkage, credit gap reduction and timely payments to MSMEs. Effective implementation has been a challenge for all the stakeholders involved in the sector which has led to stifling of the growth of MSMEs in the country.

(ii)   There is a need to facilitate, nurture and support innovative business ideas and shape them into enterprises. Further, with limited number of entrepreneurial development and incubation centres, entrepreneurial ethos of the MSME eco- system may face certain challenges in evolving. Utilisation and reach of various schemes and credit support is constrained due to lack of formalisation and low level of registration of MSMEs in Udyam. Promoting formalisation and digitisation amongst MSMEs and encouraging them to register in Udyam has remained a challenge.

(iii)   Infrastructural bottlenecks affect the competitiveness of MSMEs and reduces their ability to venture into domestic as well as global markets. Inadequate availability of basic amenities such as work sheds, tool rooms, product testing laboratories, electricity, rural broadband, and innovation hubs is acting as a deterrent to the growth of the sector. Development of MSME clusters has been largely confined to Government organisations with low level of private investment.

(iv)   MSMEs often face issues related to lack of information about various schemes for instance, deprive MSMEs from availing benefits offered by Government, banks, and other agencies. Limited access to information may lead to limited penetration of the schemes.

(v)   Due to their informal nature, MSMEs lack access to formal credit as banks face challenges in credit risk assessment owing to lack of financial information, historical cash flow data, etc. Further, very few MSMEs can attract equity support and venture capital financing. The cost of capital for the MSME sector is usually higher than large and mega players.

(vi)   MSMEs face the twin challenge of limited access to quality raw material and market for finished product. National Small Industries Corporation (NSIC) through market assistance scheme facilitates MSMEs to discover markets for their products and the Government e-Marketplace (GeM) portal has enabled MSMEs to connect with buyers from Public Sector Undertakings (PSUs) and Government Departments. However, the number of MSMEs availing benefits under the schemes are few.

(vii) India has done remarkably well under the ease of doing business reforms, wherein the country now ranks 63rd in 2020 which is a jump in 14 places from the 2019 rankings. However, if we need to break into the top 50, further simplification of processes is required esp. for the MSME segment. These processes are spread across the union, states, and sometimes even local level governments. Key areas of interventions will include – dealing with construction permits, registering property, getting credit, protecting investors, paying taxes, enforcing contracts, resolving insolvency amongst others.

(viii) Climate change has been on the G20 since its first summit in 2008 and lending to green and sustainable projects is a key challenge in the coming decade. There is an urgent need to improve the rating parameters for the MSME sector to take up projects which are neutralize the harmful effects of carbon emissions and promote manufacturing in the sector.

(ix) Other issues such as delayed payments for the MSMEs, lack of expertise in the product development, technology adoption and marketing strategy, capacity building of the entrepreneurs amongst others are often faced by the MSME sector. The government from time to time have framed policy frameworks around these issues, however, the challenges on the implementation front remain.

While above are the outlined challenges of the MSME industry in the country, to assess the MSME scenario in Punjab, it is essential to deep dive into the challenges the MSME industry witnesses in the state. These challenges have been collated through extensive primary research undertaken for SIP preparation in the form of primary survey, consultations with industries and associations, women MSMEs, SHGs, government departments.

Challenges to MSME in Punjab

4.1 Business environment

This sector in Punjab contributes significantly to the state's economy and generates considerable employment opportunities for the people of the state. The MSME sector in Punjab is majorly dominated by the manufacturing sector, followed by the service sector, agriculture sector and the allied sectors. While the sector is growing in numbers and generating livelihood for the citizens of the state, there are multiple set of challenges this sector faces more so after the COVID-19 pandemic. Here are some of the challenges faced by MSMEs in Punjab: -

Business Environment challenges as assessed through primary survey: During the focussed group discussions and inferences drawn from the primary survey conducted across the districts in Punjab, it was drawn that the MSMEs in Punjab do face regulatory challenges, which creates hindrances for them to adhere to multiple regulations related to land, environment, and taxation. The MSMEs often need to comply with

various labor laws related to minimum wages, working hours, leaves, safety & precautions, and social security. Compliance with all aspects of labour laws can get complex laws and time-consuming, especially for small businesses with limited resources and financial backing. Labor laws pose as a challenge for almost 36% of the MSMEs. Alongside labor laws, there exists environmental regulations related to pollution control, waste management and treatment etc. environment and pollution norms also cause hindrance to almost 18% of the MSMEs in Punjab. To comply with these aspects there is a need for investment in technology, which for MSMEs can get challenging. The taxation related laws (income tax, GST, and other state-level) taxes too often complicate processes for the MSMEs. Tax compliance such as GST, Excise Duty has had an impact on almost 56% of the surveyed MSMEs.

(i)   It was also highlighted during the discussions the process of obtaining the licenses and their renewals often gets cumbersome or has a high turnaround time. This high turnaround time leads to delays and functioning of the MSMEs which must be addressed. 24% of the MSMEs face problem due to lengthy procedures required during the process.

(ii)   The new, budding MSMEs require considerable hand holding support to sustain and there exists a need for a system to be employed in place to provide teething support, especially with regards to regulatory compliances in the state. 56% of the surveyed MSMEs consider Tax compliance such as GST, Excise Duty, etc as a challenge.

(iii)   The incentives of the Punjab Industrial and Business Development Policy 2022 have not completely reached the MSMEs in the state, there exists a need for awareness and outreach about the policy and handholding support for obtaining the laid-out incentives. Only 3% of the MSMEs surveyed are receiving incentives for various sectors. While the DIC offices in the state are functional and aware, there still exists a gap for appropriate outreach.

(iv)   The above challenges also hold true for the central government schemes for MSMEs. It is witnessed in the state that the awareness and utilization of MSME central government schemes is low, especially CGTMSE, TReDS, LEAN, ZED etc. almost 47% of the MSMEs are aware of the ZED Scheme while almost 6% of the MSMEs surveyed are aware of LEAN. Only 1.57% of the surveyed MSMEs are aware of TReDS. There are very few buyers registered on CGTMSE, almost 5% of the surveyed MSMEs are aware of the scheme. The ask of the units in this regard is to identify an agency/set up a mechanism that can serve as a one stop solution for adhering to regulatory compliances in the state.

(v)   The processes for Change in Land Use (CLUs) and for pollution certificates must be simplified for MSMEs in the state for the ease of functioning of MSMEs. The environment and pollution norms have been challenging for almost 17% of the MSMEs surveyed.

4.2 Factor Conditions: Land, Energy, Finance, Labour, Ecological Sensitivity, Market Size & Access, Technology, Common Infrastructure, and others.

(i)   Factor Conditions: Multiple factor conditions like land, labour, productivity, technology, finance impact the development and growth of MSMEs. We shall have an overview of these factor conditions in the following sections.

a. Land availability near the focal point and cost are critical factors that impact the performance of MSMEs. MSMEs require adequate land and infrastructure to set up their manufacturing units and other facilities. High land prices and the scarcity of land can make it challenging for MSMEs to set up their operations in Punjab. Basis our discussions and the survey, it was seen that almost 68% of MSMEs faced problems due to high costing of land, especially in Amritsar. The high costing of land hinders the districts from developing infrastructure. Non-availability of land is also one of the crucial challenges faced by MSMEs. Around 45% of the MSMEs are affected by the same, Sahibzada Ajit Singh Nagar and Patiala being the districts facing this challenge majorly. Around 16% of the MSMEs face challenges when it comes to acquisition. There are delays to this which is hindrance for the growth of MSMEs.

b. Labor is a crucial input for MSMEs, and the availability and cost of labor impact their performance. Punjab has a large workforce, and labor is relatively abundant and affordable compared to other states. During the primary survey and focussed group discussions it was inferred the availability of skilled labour is limited. Districts like Amritsar, Muktsar discussed that given most of the labour is from other states, the retention of labour in their units is low and mostly unwilling to undergo skill trainings. Therefore, lack of skilled labour is the most crucial challenge for MSMEs, nearly 72% of the surveyed units face this problem. Poor working conditions has also hindered the growth of 21% of the MSMEs surveyed, mainly in Fatehgarh Sahib and Patiala. 816 MSMEs, that account to 16% of the MSMEs are affected due to the low productivity of labour. This can be reduced by organising workshops, skill training sessions, etc.

c. Productivity is a critical factor that impacts the competitiveness and profitability of MSMEs. MSMEs are expected to explore and adopt new technological interventions, improve their production processes, and install quality control measures to enhance their productivity. 58% of the surveyed MSMEs have expressed the need for capacity building workshops for skill development. Largely through the discussions it was inferred that while most MSME units are trying to maximize their productivity, there still exists a need to install specific measures for skill development, capacity building and appropriate technological interventions which in turn shall improve their productivity over time. Lack of affordable new technology has impacted almost 24% of the surveyed MSMEs, especially in Patiala and Sahibzada Ajit Singh Nagar. Lack of infrastructure facilities has hindered the growth of almost 30% MSMEs, Patiala being the most affected. Around 15% of the surveyed MSMEs have missed out on opportunities due to limited awareness

about procedure files for patents and trademarks. Moreover, it was inferred that productivity is largely affected by lack of demand and market access which hinders the MSMEs in extracting their full potential.

d. Access to finance is crucial for the growth and performance of MSMEs. MSMEs require finance to invest in new machinery, technology, and infrastructure, and to manage their working capital requirements. Punjab has various financial institutions and central/state government schemes that have provisions for MSMEs to access finance. Basis the analysis from the survey it was inferred that the delayed payment from buyers has affected almost 48% of the surveyed MSMEs. It has had a major impact on Ludhiana and Patiala. Limited access to collateral free loans has also had an impact on 33% of the MSMEs that were surveyed.

e. The size of the market determines the demand for the products or services offered by MSMEs. The larger the market, the higher the demand and sales potential for MSMEs. A larger market size also provides MSMEs with the opportunity to diversify their customer base, reduce dependence on a particular segment, and explore new markets. Punjab has a significant population and a growing working-class population, making it an attractive market for MSMEs. Limited access to markets, especially online portals have had an impact on more than 53% of the surveyed MSMEs. Branding and Packaging has also been a major challenge for the MSMEs accounting to almost 27%. The MSMEs present in Jalandhar and Patiala have been majorly affected by branding and packaging to meeting the needs of the standards. Selling products at low cost and limited information about design have almost impacted 16% of the MSMEs that were surveyed.

f. Infrastructure refers to the basic physical and organizational structures and facilities needed for the operation of a society or enterprise. Adequate infrastructure is crucial for MSMEs to operate efficiently and effectively. Punjab has good road and rail connectivity, a well-developed power and water supply, and a strong digital infrastructure. However, there is scope for improvement in the areas of logistics and transportation, especially for MSMEs located in remote, rural or cut-off areas. Lack of infrastructure facilities has left an impact on almost 30% of the MSMEs surveyed.

The following sections shall deep-dive into granular challenges the MSMEs in the state face and their requirements, which, if bridged can be fruitful for their growth.

4.2 Infrastructure

The availability of core public infrastructure, such as energy, water, roads, and industrial land, is critical for the growth and development of MSMEs in Punjab. However, there are significant infrastructure gaps in these areas that have a significant impact on MSMEs. These gaps include:

a) Energy: The availability of reliable, uninterrupted, and affordable energy is essential for the growth and development of MSMEs. In Punjab, there are frequent power outages and high energy costs, which increase production costs and reduce profitability for MSMEs. Hence, it becomes imperative to introduce self-sustainable energy solutions. Our primary survey suggested that only 11% of the MSMEs are making use of Solar Roofs.

b) Water is another critical yet scarce resource that MSMEs require for their operations. In Punjab, water scarcity is a significant challenge, particularly in rural areas, where MSMEs often face difficulties accessing clean and uninterrupted water facilities for their operations. Many MSMEs are adopting Green Technologies related to rainwater harvesting. Almost 6% MSMEs have adopted for Rainwater Harvesting. From our meeting with various industrialists, it was seen that many districts face issues when it comes to water, there are many districts that are following the policy of reducing wastewater. Mukstar is one of them. The district is adopting practices to reduce wastages. In Barnala, the price of water is high compared to others.

c) Roads: Access to good quality roads is crucial for MSMEs to transport their goods and access markets. However, the road infrastructure in Punjab is inadequate in certain patches, which is being addressed through provisions in the state policies.

d) Industrial land: Availability of suitable land for industrial use is essential for the growth and development of MSMEs. However, in Punjab, the focal point developed in the past are mostly occupied by existing units. Hence, there exists a need to develop new focal points at affordable rates to accommodate new and enable other MSMEs in expanding their operations. Air pollution control devices are being installed as well by 12% of the surveyed MSMEs.

In addition to the core public infrastructure, MSMEs in Punjab also require access to third-party infrastructure such as warehousing, cold chains, and transportation which is essential for their growth. Despite the presence of warehousing, cold chain, and transportation facilities, the overall infrastructure may not be adequately developed or distributed evenly across the state. Some districts or remote areas have limited access to these facilities, making it difficult for MSMEs located in those areas to find suitable options for their storage and transportation needs. Moreover, accessing warehousing, cold chain, and transportation facilities often entails costs, such as rent, handling charges, and transportation expenses. Small or budding MSME units with limited financial resources usually find it challenging to bear these costs, especially if they require specialized storage or refrigeration facilities. The high operational expenses can impact their competitiveness and profitability.

4.3 Challenges in Access to Credit

Access to credit is crucial for the growth and development of MSMEs, but MSMEs in Punjab often face challenges in accessing credit facilities. Some of the key challenges faced by MSMEs in accessing credit facilities in Punjab include:

(i)   Lack of Collateral: MSMEs often lack sufficient collateral to secure credit facilities from formal financial institutions. This is particularly true for smaller MSMEs that may not have significant assets to offer as collateral. 33% of the surveyed MSMEs have limited access to collateral Free Loans, Patiala and Bathinda being impacted the most.

(ii)   Limited Financial Records: Many MSMEs in Punjab operate informally, and as a result, they may not have adequate financial records that demonstrate their capacity to avail credit. This can make it difficult for MSMEs to access credit facilities from formal financial institutions. Limited resources when it comes to finances has left an impact on almost 10% of the MSMEs surveyed.

(iii)   High-Interest Rates: MSMEs in Punjab often face high-interest rates on loans, making it difficult to repay loans and obtain new credit facilities. The high-interest rates are often due to the perceived risk associated with lending to MSMEs.

(iv)   Lack of Awareness: Many MSMEs in Punjab may not be aware of the various credit facilities available to them, including government-backed schemes and initiatives. This lack of awareness can limit their ability to access credit facilities. Lack of awareness of not only schemes, but also lack of information for adopting new technology has left 58% of the surveyed MSMEs behind. Only 5% of the surveyed MSMEs are aware of CGTMSE.

(v)   Cumbersome Documentation: The documentation requirements for accessing credit facilities can at times be complex and time-consuming. MSMEs in Punjab may struggle to meet these requirements, limiting their ability to access credit. During the focussed group discussions, it was highlighted by units in Amritsar and Tarn Taran about the usually lengthy documentation processes which they have faced while accessing financial support from the banks/financial institutions and in a similar way it has had an impact on almost 34% MSMEs.

(vi)   Limited Availability of Credit: Despite the government's efforts to increase credit availability to MSMEs, many MSMEs in Punjab still struggle to access credit due to the limited availability of credit facilities in terms of financial institutions, lending agencies or other formal credit institutions. Only 5% of the surveyed MSMEs are aware of CGTMSE.

(vii)   Case Rejections: It was highlighted during the survey that the turnaround time for disbursement of loans in some cases may take more time, while it may also lead up to high case rejections.

(viii)   Procedural Challenges: Many MSME units, industry association members communicated about their limited knowledge on schemes like CGTMSE. While they are aware of its existence, the granularities of the scheme w.r.t how to avail the benefits, procedure and paperwork required is unclear. Many buyers are not registered on TReDS platform as well, which is a challenge for 4% of the MSMEs that were surveyed.

While these gaps and challenges in availing credit facilities reflect the MSME scenario at large in Punjab, the women headed MSMEs particularly experience slightly more challenges in the obtaining credit/financial help for their units.

From our survey, it was seen that there are almost 350 women-based IT Startups. Their still exist gender gaps in our society and many women entrepreneurs face gender-based discrimination when applying for loans from financial institutions. These may sometimes include higher interest rates or additional requirements that male entrepreneurs do not face. Moreover, a proportion of women entrepreneurs may not have adequate financial literacy or access to financial education, which makes it difficult for them to understand the financial requirements and responsibilities associated with accessing credit facilities. The women SHG members, during the interactions even suggested that the distance of the banks from their homes, together with their limited mobility affects their access to credit facilities.

Given access to information is a major challenge with the vulnerable population, the women entrepreneurs in certain setups have limited networking opportunities and limited access to technology, which can make it difficult for them to access information about available credit facilities or connect with potential lenders through use of technology (smartphones, computers, or acquaint themselves with online loan availing process).

Delayed Payments to MSMEs

As per the recent data, nearly Rs 10.7 lakh crore is stuck as delayed payments to MSMEs in India, amounting to 6% of India's GVA (Gross Value Added) for FY 2020-21.[40]

The issue of delayed payments is not only detrimental for MSMEs growth in the country, but it also has a direct impact on the supply chain, which eventually affects the economy at large.

Delayed payments from buyers have had an impact on 48% on surveyed MSMEs.

Mitigation measures by India to address delayed payments

India, over the period of time, has introduced multiple legal and regulatory measures to safeguard the MSMEs from delayed payments. The very first law that was introduced, that required buyers to pay interest to MSMEs if the payment was overdue for more than 30 days was the Interest of Delayed Payments (IDP) to Small Scale and Ancillary Industrial Undertakings Act, 1993. This act was eventually replaced by the MSME Development Act of 2006, which was in many ways similar to IDP with additions and modifications to interest rates and

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[40] https://economictimes.indiatimes.com/small-biz/sme-sector/about-rs-10-7-lakh-crore-stuck-in-delayed-payments-to-msmes-amounting-to-6-of-indias-gva/articleshow/91430401.cms?from=mdr

defining the number of days in which payment shall be made. The number of days outlined was changed to 45 days.

These interventions, however, could not strongly deal with the issue of delayed payments due to their enforceability.

Samadhan is a platform introduced by the government for MSMEs to raise disputes over the non-payment of dues. Almost 4% of the surveyed MSMEs are aware of the Samadhan Portal for online dispute resolution. The platform currently has complaints raised by 1.08 lakh applications filed MSEs with delayed amounts totalling to Rs 28,085 crore since its launch in October 2017.[41] Almost 11% MSMEs face issues when it comes to delays in responses for online dispute resolution on the Samadhan portal.

India has a history of market solutions to ease the burden of delayed payments such as Trade Receivables Discount System (TReDS) and SIDBI-NSE Trade Receivable E-discounting Engine (NTREES), which MSMEs could use to securitize their receivables, thus easing the working capital crunch due to delayed payments. Almost 2% of the surveyed MSMEs are aware of the TReDS scheme. This led to commercial platforms such as M1xchange, Invoice Mart and RXIL where MSMEs can get financing based on their unpaid invoices. The adoption of TReDS has been limited due to the reluctance of buyers to get onboarded on the platform. The three TreDS platforms together have around 3000 buyers and 30,000 sellers, which is insignificant when compared to the 60,000 companies with revenues greater than Rs. 50 Crore and 78.16 lakh MSMEs registered on Udyam. Solutions such as working capital loans and trade credit insurance have seen limited uptake due to the low penetration of formal finance in the MSME sector.

Almost only 4% of the buyers among the MSMEs surveyed have registered themselves on the TReDS platform.

While delayed payments seems like an unfathomable challenge, it must be noted that through a combination of solutions from various countries and regions of the country, this issue can be solved to a great extent. The below section shall look at the initiatives taken by Punjab to solve the issue of delayed payments for MSMEs in the state.

4.4 Scenario of delayed payments in Punjab

Delayed payments is a major issue faced by MSMEs in Punjab, as in many other states in India. It is a significant challenge that affects the cash flow and working capital of MSMEs, leading to financial stress, and impacting their ability to meet their obligations and professional goals. As mentioned above, almost 48% of the MSMEs surveyed face this issue.

The Punjab government has taken several measures to address the issue of delayed payments to MSMEs. One such measure is the implementation of the Micro, Small and Medium Enterprises Development (MSMED)

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[41] https://economictimes.indiatimes.com/small-biz/sme-sector/about-rs-10-7-lakh-crore-stuck-in-delayed-payments-to-msmes-amounting-to-6-of-indias-gva/articleshow/91430401.cms?from=mdr

Act, which requires all buyers to make payments to MSMEs within 45 days of the acceptance of goods or services.

Additionally, the Punjab government has launched an online portal, called the Punjab State E-Procurement Portal, which facilitates the procurement of goods and services by various government departments and agencies. This portal enables MSMEs to participate in government procurement processes and receive timely payments. 4.5% MSMEs are aware of the procurement portal.

Despite these measures, delayed payments continue to be a significant challenge for MSMEs in Punjab. MSMEs in the state need to ensure that they have proper systems in place to monitor payments and follow up with buyers to ensure that they receive timely payments. Additionally, they can explore alternative sources of financing, such as invoice financing and factoring, to manage their cash flow and working capital requirements.

Overview of Samadhan Portal in Punjab[42]

The Ministry of MSME has launched an initiative that allows a supplier, also known as the MSE unit, to file an online complaint against a buyer of products or services with the relevant MSEFC in their state/UT. The MSEFC Council will investigate the matter and the rules and regulations will be available for proactive action by concerned Departments, CPSEs, Central Ministries, State Governments, and others to proceed with the sanction of interest if the complaint is legitimate.

(i)   Entrepreneurs/MSEs can use the platform to file online applications for delayed payments: To file an application, the user must have a Udyog Aadhaar Number that has been authenticated with the actual Aadhaar card.

(ii)   Examine the case status: MSMEs and entrepreneurs can use the portal to look up the status of their online applications for delayed payments.

(iii)   Pending Payments Dashboard: The Portal will provide information on pending payments between MSEs and specific CPSEs, Central Ministries, State Governments, and so on. PSE, CEOs, and Secretaries of the Ministry in question would be responsible for keeping track of delayed payments instances under their authority and making the necessary directions to resolve the issues related to it.

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[42] https://samadhaan.msme.gov.in/MyMsme/MSEFC/MSEFC_Welcome.aspx

State Pending Report

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Search:

S.No.	State Name	Applications filed by MSEs	Application Pending	Cases Pending	Total Pending (Application + Cases)
1	MAHARASHTRA	34552	3603	6489	10092
2	DELHI	16338	961	5958	6919
3	GUJARAT	12280	3106	3113	6219
4	HARYANA	11769	3401	1851	5252
5	UTTAR PRADESH	11285	6860	1116	7976
6	TAMIL NADU	9556	1942	1043	2985
7	RAJASTHAN	8716	1117	3164	4281
8	KARNATAKA	7816	3300	634	3934
9	PUNJAB	7071	1163	2030	3193
10	WEST BENGAL	5928	2067	2361	4428

MSME SAMADHAN- Delayed Payment Monitoring System as on date, MoMSME 2023

Basis the data extracted from the MSME Samadhan Portal, Punjab till date has a total of 7071 applications filed at the portal. Out of the filed applications and cases, there is a total pendency of 3193 (applications + cases). In the state of Punjab, during the primary survey and discussions, it was inferred from the units that the turnaround time for receiving payments is long and this delay in payments can, at times create financial stress for MSMEs.

It must be noted here that while MSMEs in Punjab might be aware of the existing Samadhan Portal, there might be units that might not be aware of this central portal's existence. Our survey indicated that only 4% of the MSMEs surveyed are aware of the Samadhan Portal for online dispute resolution. Hence, the complaints registered on the portal are very few.

District-Wise Pending Report for Punjab

S.No.	State Name	District Name	Applications filed by MSEs	Application Pending	Cases Pending	Total Pending (Application + Cases)
8	PUNJAB	LUDHIANA	4640	162	1466	1628
46	PUNJAB	S.A.S NAGAR	765	558	110	668
63	PUNJAB	JALANDHAR	499	68	175	243
81	PUNJAB	SANGRUR	296	236	32	268
91	PUNJAB	PATIALA	218	39	113	152
107	PUNJAB	FATEHGARH SAHIB	183	17	62	79
120	PUNJAB	AMRITSAR	153	13	22	35
195	PUNJAB	BATHINDA	56	9	17	26
201	PUNJAB	KAPURTHALA	50	21	0	21
237	PUNJAB	MOGA	34	0	3	3
241	PUNJAB	HOSHIARPUR	32	0	3	3
252	PUNJAB	RUPNAGAR	28	12	6	18
268	PUNJAB	PATHANKOT	23	5	5	10
276	PUNJAB	SRI MUKTSAR SAHIB	21	0	0	0
284	PUNJAB	GURDASPUR	19	4	0	4
309	PUNJAB	BARNALA	14	13	1	14
312	PUNJAB	FARIDKOT	14	1	6	7
381	PUNJAB	NAWANSHAHR	7	1	0	1
384	PUNJAB	FIROZEPUR	7	1	4	5
426	PUNJAB	FAZILKA	5	0	4	4
444	PUNJAB	MANSA	4	0	1	1
462	PUNJAB	MALERKOTLA	3	3	0	3
614	PUNJAB	TARN TARAN	0	0	0	0
	Grand Total		143657	33946	31071	65017

MSME SAMADHAN- Delayed Payment Monitoring System as on date, MoMSME 2023

4.5 Challenges in Market Access (Target Markets and product standards)

MSMEs in Punjab face several challenges when it comes to market access, both in domestic and international markets. These challenges can limit their ability to expand their customer base, increase sales, and compete effectively. Below are the factors that serve as a hindrance to market access in the state for MSME units: -

Limited Market Information: Access to accurate and up-to-date market information is crucial for MSMEs to identify potential customers, understand market trends, and make informed business decisions. However, 53% of the MSMEs surveyed in Punjab face challenges in accessing reliable market data, consumer preferences, and market research reports. Lack of market information can hinder their ability to develop effective marketing strategies and target the right customer segments.

Intense Competition: MSMEs in Punjab often operate in highly competitive markets. They may face challenges in differentiating their products or services from those of larger competitors or established brands. Competing on price alone may not be sustainable, so MSMEs need to find innovative ways to highlight their

unique value proposition and attract customers. Lack of digital marketing tools such as online lead generation has impacted 13.4% of the total surveyed MSMEs.

Limited Resources: MSMEs typically have limited financial resources, manpower, and marketing budgets compared to larger enterprises. This can pose challenges in terms of market access. MSMEs may struggle to invest in marketing and promotion activities, develop effective distribution networks, or engage in aggressive advertising campaigns. Limited resources can restrict their ability to reach and attract customers, especially in highly competitive markets. This has had an impact on almost 20% of the MSMEs surveyed so far.

Distribution and Logistics: Establishing effective distribution channels is essential for MSMEs to reach their target customers. However, MSMEs in Punjab may face challenges in accessing reliable and cost-effective distribution networks. Limited transportation infrastructure, inadequate warehousing facilities, and inefficient logistics services can hinder their ability to deliver products to customers in a timely and cost-efficient manner. Limited information regarding developing design interventions, matching international brad standard, lack of modern techniques has had an impact on a substantial number of MSMEs. Lack of skills to use ICT Tools and applications have affected 44% of the MSMEs surveyed.

Regulatory and Compliance Requirements: Compliance with regulatory standards and obtaining necessary licenses and certifications can pose challenges for MSMEs. Meeting quality standards, product safety regulations, and other legal requirements can be time-consuming and costly. MSMEs may need to invest in upgrading their processes, obtaining certifications, and ensuring compliance, which can be particularly burdensome for smaller enterprises with limited resources and expertise. Tax compliance in case of GST and excise duty is considered as a regulatory burden by almost 61% of the surveyed MSMEs. Labour laws, not being very conducive, has impacted almost 36% of the MSMEs surveyed.

Limited Awareness: During the interactions with units and industry associations, it was assessed that the MSMEs have limited awareness and knowledge on how they can expand their customer base and the markets they can target. Majority of the anchor buyers in Punjab belong to the private sector and there is limited business coordination with government departments. The units are unaware of the e-tendering systems and are unable to compete for government tenders. Lack of information about adopting digital mode of operation affects 43% of the surveyed MSMEs. Limited knowledge about the right choice for investing in digital technologies is one of the main challenges and has affected almost 33% of the MSMEs surveyed.

Primarily, in Punjab most markets being accessed by MSMEs are regional and domestic. While the smaller/budding units are eventually growing into exploring markets beyond regional areas, there exists a need for a network to help MSMEs in realize the opportunities in the space. Lack of awareness about international fairs and exhibitions has impacted almost 12% of the MSMEs surveyed. Knowing about international exhibitions and fairs is important since it helps MSMEs to form their own market base and name in the whole market.

Addressing these challenges requires a comprehensive approach involving government support, industry associations, and business development initiatives. The Punjab government has been implementing various programs and schemes to support MSMEs, including providing financial assistance, facilitating market linkages, offering business development services, and organizing trade fairs and exhibitions. Additionally, leveraging digital marketing, e-commerce platforms, and social media can provide cost-effective ways for MSMEs to enhance their market access and reach a wider audience across regions.

Challenges in Technology Adoption

Access and adoption of new technology in their processes continuous to be a slow process for MSMEs. Below listed are some of the reasons that were assessed during our stakeholder consultations and primary survey:

High Initial Cost of Investment: Implementing new technologies in production and manufacturing often requires a significant upfront investment. MSMEs may face challenges in securing the necessary capital to purchase and install advanced machinery, equipment, and software systems. Limited access to affordable financing options can hinder their ability to invest in technology upgrades. This has had a major impact on almost 58% of the MSMEs surveyed. Industrialists and many MSME owners from Patiala face this issue. 34% of the surveyed MSMEs have been affected due to lack of capital to invest in technology solutions. Lack of infrastructure facilities, when it comes to technology, is a challenge for almost 30% of the MSMEs surveyed.

Lack of Awareness and Expertise: Almost 15% of the surveyed MSMEs have limited knowledge and awareness of the latest technologies suitable for their specific industry. They may be unaware of the potential benefits that technology can bring to the efficiency of their production processes. Additionally, they may lack the expertise and skill set required to effectively implement and operate technology solutions. Example – The units were unaware about adopting ERP solutions in their units which, if adopted, would improve the efficiency of manufacturing processes, increase market access, and reduce operational time. Almost 5% of the surveyed MSMEs are not aware of the Digital MSME Schemes that are being offered to them.

Compatibility and Integration Issues: Given that a lot of technological interventions are either domestic, integrating new technologies with existing systems and processes can be challenging for MSMEs. The existing infrastructure and machinery may not be compatible with newer technologies, requiring additional investments for upgrades or replacements. Integration issues can result in operational disruptions, data inconsistencies, and inefficiencies in production workflows. Lack of infrastructure facilities have been a challenge for almost 30% of the MSMEs from our primary survey.

Openness to Change: During the stakeholder consultations, it was inferred that there exists a slight reluctance to adopt new technologies. There could be multitude reasons for this primarily – lack of education & awareness, unfamiliarity with technology, unavailability of the skilled workforce that can comprehend the technologies and implement them. This resistance can hinder the adoption and successful implementation of technology-driven improvements in production and manufacturing processes. Lack of training sessions due to reluctance of labor has proved to hinder the growth of 23% of surveyed MSMEs.

Limited Technical Support and Training: It was discussed during the interactions that MSMEs may face challenges in accessing technical support and training to effectively use and maintain technology systems. The hesitance to adopt a technological intervention and the apprehension for not getting enough hand holding support to implement it exists with the units. These challenges may hinder MSMEs' ability to leverage technology for optimal performance. The non-availability of LEAN manufacturing counsellors or consultants has left a considerable impact on 8% of the MSMEs, especially the MSMEs present in Fatehgarh Sahib and Patiala. Lack of training has affected almost 23% of the surveyed MSMEs.

Challenges in Adopting Green and Efficient Technologies

During the primary survey and industry consultations, the aspect of green technologies was widely discussed. The major question pertaining to this aspect was whether the units have adopted any form of green technology to address the issues of carbon emissions, wastewater treatment, effluent generation, and all in all, reducing the carbon footprint. These solutions could be in the form of: -

a. Shift towards environmentally sustainable techniques – Installation of CNG boilers in place of coke boilers, installation of solar panels in the units.
b. Setting up of emission devices to monitor and control the emissions from industries.
c. If the industries undertake/have undertaken energy audits for their units

The discussions highlighted that there were a multitude of reasons for units not pacing up adoption of green and efficient technologies which can be bucketed as below: -

Cost of Implementation: The foremost challenge highlighted in the analysis of the data was that the green technologies often require upfront investments, which can be a significant challenge for MSMEs with limited financial resources. The initial costs associated with adopting green technologies such as solar panels, energy-efficient equipment, or waste management systems can be a barrier for adoption. Almost 32% of the MSMEs surveyed fear struggling to allocate funds for these investments, especially if they have competing financial priorities. Thus, high implementation costs proved to be a challenge for 36% of the MSMEs surveyed.

Lack of Awareness and Information: It was found during the survey that some MSMEs may have limited knowledge and awareness of available green technologies and their potential benefits. The units often do not realize the significance and importance of shifting to green technologies or move towards efficient technologies. 51.57% of the MSMEs surveyed are not aware of the range of options or the specific technologies suitable for their industry or operations.

Technical Expertise and Skill Gaps: Implementing and managing green technologies often requires specialized knowledge and technical expertise. Also, moving to modern technological solutions to make the processes efficient, MSMEs may face challenges in finding employees or contractors with the necessary skills and expertise to install, operate, and maintain them. The dilemma of limited access to trained and skilled professionals can hinder the adoption and effective utilization of green and efficient technologies.

Challenges in accessing R&D labs centres and academia.

Access to R&D labs is important for MSMEs to foster innovation, develop new products or processes, and stay competitive in their space.

During the survey and interactions with the units in Punjab, it was inferred that accessing R&D labs often involves costs, including fees for using lab facilities, equipment, and technical expertise. MSMEs with limited financial resources at times find it challenging to bear these costs. Moreover, MSMEs face administrative and procedural barriers when attempting to access R&D labs. These barriers usually include complex application processes, lengthy approval timelines, and bureaucratic procedures. Such barriers can create delays and increase the administrative burden for MSMEs, discouraging them from accessing R&D labs.

Punjab currently has limited R&D facilities across sectors and the MSMEs have to visit other states to gain approvals.

High R&D costs have been a challenge for almost 28% of the MSMEs from our primary survey. Punjab is a hub for bicycle manufacturing and the vehicle market is slowly progressing towards e-bikes. There exists a need to establish an NABL accredited lab in the state where each component of the e-bike can be tested for quality assurance. Currently, due to paucity of testing labs within the state, the units have to send their part to Manesar which in turn becomes time consuming and at times may pose a logistical challenge for MSMEs.

Strengthening of Firm capabilities and adoption of Resource Efficient and Cleaner Production (RECP) practices by MSMEs

A gradual transition to energy efficient practices is an effective step for MSMEs as it shall benefit them and the environment in the long run. Adopting and implementing these energy efficient strategies can prove to be a long-drawn process which may require capital investment, regulatory compliances, and skilled workforce to operate resource efficient practices.

Challenges to adopting energy efficient practices.

There exists a need to educate the MSMEs on energy-efficient practices and technologies. It is essential for them to be aware of the potential cost savings and environmental benefits associated with energy efficiency. Lack of knowledge for adopting green, and sustainable solutions can hinder the motivation of almost 47% MSMEs to adopt energy-efficient practices and invest in relevant technologies.

Clean practices often come with upfront costs and investments in technologies, equipment upgrades, and operational changes. MSMEs, especially those with limited financial resources, usually find it challenging to allocate funds for these investments. Concerns about the return on investment and uncertainty regarding the payback period may further deter MSMEs from embracing energy-efficient practices.

Moreover, adopting efficient technological practices like ERP solutions can at times become tech heavy and would require setup in terms of hardware, software, and human resource. High costs for adopting ERP solutions, SAP, Cloud etc has left an impact on almost 13% of MSMEs that were surveyed.

The solutions often comprise of software that organizations use to manage day-to-day business activities such as accounting, procurement, project management, risk management and compliance, and supply chain operations. A complete ERP suite also includes enterprise performance management, software that helps plan, budget, predict, and report on an organization's financial results.[43]

Given appropriate support, incentives, and encouragement, the MSMEs in Punjab shall get appropriate push towards adopting clean and efficient technologies in their operations.

Market for Service provision to MSMEs

Marketplace access for MSMEs holds prime importance as it establishes proper linkage with the buyers, provides exposure to MSMEs and helps them in increasing their productivity. To help MSMEs grow and develop their base in a region, they require initial handholding support for business development, availing existing schemes and technical support.

It was inferred during our primary survey that MSMEs, especially women MSMEs require handholding support in setting up their units. While the DIC offices in Punjab provide them with appropriate support, there still exists a need for earmarked business and technical service providers who shall provide all the necessary guidance regarding business setups and technical know-how. At times, availing benefits of certain schemes may be difficult for MSMEs due to lengthy paperwork and other regulatory and compliance requirements. Developing a pool of certified business and technical service providers to MSMEs in the state shall work as a one stop solution that can address the concerns of MSMEs.

E-marketplace is a lucrative option for MSMEs to expand their business and reach a wider audience. It has been observed that the participation of women MSMEs on e-marketplaces is meagre and they require adequate handholding support to navigate the area of e-marketplaces. The MSMEs face certain specific challenges in accessing the e-marketplace namely,

- **Unavailability of Digital Infrastructure**: MSMEs in certain regions may face challenges in accessing reliable internet connectivity and digital infrastructure, which can hinder their ability to effectively participate in e-marketplaces. Inadequate internet access or slow connection speeds can impact their online presence and responsiveness. This has had an impact on 44% of the MSMEs surveyed.
- **Technical Know-How:** Some MSMEs may lack the technical knowledge and skills required to navigate and effectively utilize e-marketplace platforms. Understanding how to create product listings, manage

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[43] https://www.oracle.com/in/erp/what-is-erp/

inventory, handle online transactions, and optimize digital marketing efforts can be a hurdle for MSMEs with limited digital literacy. This has affected almost 42% of the MSMEs that were surveyed.

Visibility and Competition: E-marketplaces typically have a large number of sellers competing for customer attention. MSMEs may find it challenging to stand out among the competition and gain visibility for their products or services. Building a strong brand presence, optimizing product listings, and implementing effective marketing strategies are crucial for overcoming this challenge.

Compliance and Verification Requirements: E-marketplaces may have stringent compliance and verification processes to ensure the credibility and authenticity of sellers. MSMEs may face challenges in meeting these requirements, such as providing necessary documentation, certifications, and quality assurance standards.

Identifying and establishing experiences business and technical service providers can help the MSMEs in Punjab counter the above challenges and increase their market visibility.

- **Gender gaps:** Additional barriers faced by women headed MSMEs in accessing technical services and credit.

  Access to finance for MSMEs is one of the most persistent issues and it becomes graver when it comes to the women owned MSMEs. Usually, women entrepreneurs use their personal savings, acquire loans from family or friends, and find informal loans to fund their businesses (Parker, 1996). According to research by Haq (2000), women in South Asia are nearly imperceptible to get finance from formal capital financing institutions and receive merely 10% of the credits banks offer.[44]

  As for Punjab, during our primary research the women SHGs and women MSMEs highlighted certain specific challenges they experience. These challenges can be bucketed into the following categories: -

Limited Access to Information and Resources: Women MSME owners at times witness limited access to information about available technical services, such as training programs, workshops, and consultancy services. This lack of information can hinder their ability to identify and access the technical assistance they need to enhance their 5% of the surveyed MSMEs business operations. Special assistance for women entrepreneurs will be given and it would impact

The issue of accessing finance emerges as a significant challenge for MSMEs throughout Punjab's districts. Consequently, tailored support has been extended to Women Entrepreneurs, SC, ST, OBC communities, among others, within various MSME sectors. Notably, this specialized assistance benefits approximately 341 MSMEs.

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[44] https://www.researchgate.net/profile/Sadia-Shaikh-4/publication/365182146_Challenges_Faced_by_Women_owned_Micro_Small_and_Medium_Enterprises_in_an_Emerging_Economy/links/6368aafc431b1f530078c8a2/Challenges-Faced-by-Women-owned-Micro-Small-and-Medium-Enterprises-in-an-Emerging-Economy.pdf

Gender Bias and Stereotypes: Gender bias and stereotypes can create barriers for women MSME owners when seeking technical services. They may face scepticism or prejudice, leading to limited support and opportunities. Stereotypes about women's technical capabilities can restrict their access to services and hinder their business growth.

Insufficient Networking Opportunities and Support Systems: Women MSME owners may have limited access to professional networks and support systems that can connect them to technical service providers. Lack of networking opportunities can make it challenging for them to find reliable and trusted sources of technical expertise and support. The districts of Punjab also house a substantial number of IT startups led by women entrepreneurs. Our primary survey identified a total of 350 women-led MSMEs within the region. Patiala takes the lead with nearly 21% of these enterprises, closely trailed by Amritsar with 18%, and Ludhiana with almost 17%

Access to Financial Resources: Women MSME owners often face difficulties in accessing financial resources to invest in technical services. They may have limited access to capital, loans, or grants, making it harder to afford specialized technical assistance and expertise.

Need for business and technical service providers: During our primary research women MSMEs expressed an interest to expand their businesses for which they would need support in terms of business and technical service providers.

Skilled Labor

Discussion around available skilled labor in MSME units was a key discussion point during the survey and all other stakeholder consultations undertaken for the project. The stakeholders mentioned that while labor is not a major issue in the state, the availability of skilled local labor poses a challenge time and again. It is a challenge for almost 72% of the MSME units present in Punjab.

The labor force in the state is usually from the states of Bihar, Jharkhand and West Bengal and their retention during festival seasons becomes a challenge. The stakeholders expressed the need to identify and train local labor which in turn will generate employment opportunities in the state and result in higher retention.

ITIs are present across the state in the districts for multiple sectors, the labor is often unable to undertake formal refresher trainings due to lack of awareness and willingness. Some of the districts reported that even though they have ITIs in their region, they do not offer courses specific to their domain and hence, cannot access formal training. There exists a need to introduce access to courses which give exposure to advanced technologies which are cost effective and highly scalable, such as training programmes through Virtual reality, Augmented reality, Xtended reality etc.

For Punjab, it is essential to build capacities of the MSMEs and provide them with appropriate financial knowledge, business acumen and develop entrepreneurial skills to streamline their manufacturing processes and become more relevant to demand from the private sector.

Environmental, labor management and occupational health and safety standards compliance:

Occupational health and safety regulations are crucial for ensuring the well-being and safety of workers in MSMEs (Micro, Small, and Medium Enterprises). While specific regulations may vary by jurisdiction, here are some common occupational health and safety regulations that apply to MSMEs:

Below are some of the occupational health and safety regulations mentioned during the surveys: -

Workplace Safety: MSMEs are required to provide a safe and healthy working environment for their employees. This includes maintaining a clean and hazard-free workplace, ensuring proper ventilation, and lighting, and addressing potential risks such as fire hazards, electrical safety, and ergonomic issues.

Hazardous Substance Management: MSMEs handling hazardous substances or chemicals must comply with regulations related to their storage, labeling, handling, and disposal. This includes providing appropriate protective equipment, training employees on handling hazardous substances safely, and maintaining safety data sheets for all hazardous materials.

Machinery and Equipment Safety: MSMEs must adhere to regulations regarding the safe operation and maintenance of machinery and equipment. This includes conducting regular inspections, providing safety guards and devices, ensuring proper training for equipment operators, and addressing potential mechanical and electrical hazards.

Personal Protective Equipment (PPE): MSMEs are required to provide suitable personal protective equipment to employees based on the nature of their work. This may include items such as helmets, safety goggles, gloves, safety shoes, and protective clothing. Employers must ensure the proper use, maintenance, and replacement of PPE.

Emergency Preparedness and Response: MSMEs are expected to have emergency response plans in place to address potential accidents, natural disasters, or other emergencies. This includes establishing evacuation procedures, providing training to employees on emergency response protocols, and maintaining essential safety equipment, such as fire extinguishers and first aid kits.

Employee Training and Awareness: MSMEs are responsible for providing adequate training and awareness programs to employees on occupational health and safety. This includes educating workers about potential workplace hazards, safe work practices, emergency procedures, and the proper use of safety equipment.

Record Keeping and Reporting: MSMEs may be required to maintain records related to occupational health and safety, such as incident reports, safety inspection records, training records, and employee medical

records. They may also need to report certain incidents, injuries, or occupational illnesses to the appropriate regulatory authorities.

Moreover, there are certain environmental compliance standards MSMEs are expected to adhere to which are as below: -

Pollution Prevention and Control: MSMEs are required to comply with regulations related to pollution prevention and control. This includes proper management and disposal of waste materials, effective control of air emissions, and implementing measures to minimize water pollution. MSMEs should assess their operations to identify potential sources of pollution and take appropriate measures to prevent or control them.

Resource Conservation: MSMEs are encouraged to implement resource conservation practices to minimize their use of energy, water, and raw materials. This may include adopting energy-efficient technologies, optimizing water usage, and reducing waste generation through recycling and reuse. Compliance with regulations related to resource conservation helps MSMEs reduce costs and improve their environmental performance.

Hazardous Substance Management: MSMEs that handle hazardous substances are required to comply with regulations regarding their storage, handling, transportation, and disposal. This includes proper labeling, documentation, and safety precautions to minimize the risks associated with hazardous substances. MSMEs should establish procedures to handle and store hazardous substances safely, provide training to employees, and ensure compliance with relevant regulations.

Environmental Impact Assessment: In some cases, MSMEs may be required to conduct an environmental impact assessment before initiating certain activities or projects. This assessment evaluates the potential environmental impacts of the proposed activity and recommends mitigation measures to minimize adverse effects. MSMEs should adhere to the requirements for environmental impact assessments if applicable to their operations.

While MSMEs in Punjab are aware of these above compliances and are adhering to occupational, health and safety regulations and environmental compliances, they at times face challenges in obtaining required permissions for environmental clearances due to multiple regulatory compliances and paperwork.

4.6 Snapshot of Sector specific constraints

Sector Name	Constraints
Agro-based industries	Understanding CLU processes can sometimes be challenging due to their complexity, and the associated procedures can be quite time-consuming.
	A shortage of skilled workforce is prevalent in the region.

	Absence of testing labs and R&D centres for the sector hinders them from accessing the pan India and international market.
Machinery	The sector encounters challenges regarding water prices and kindly requests intervention to facilitate the training and mobilization of the existing workforce.
Steel and Metal industries	There is a recognition that individuals within the industry might not be fully informed about government schemes and their associated benefits. Additionally, it was suggested that the Government of Punjab could consider developing a Carbon Credit policy as a means to decrease its carbon impact. A noticeable absence of efforts towards recycling the scrap produced by these industries was observed. In addressing issues related to infrastructure, the possibility of establishing a sustainable infrastructure fund was brought up for consideration.
Hand Tools	The industry faces challenges in harnessing the advantages of cost-effective technological solutions. Market access remains restricted, resulting in less visible connections between markets. Assistance is sought in enhancing the branding and packaging of goods. A shortage of skilled labor is evident. Occasional delays in payments from buyers are encountered. The industry seeks guidance and support in navigating export procedures and compliance requirements. There's a limited understanding of environmentally friendly and sustainable production techniques. Workers' proficiency in utilizing ICT tools and applications is currently lacking.
Auto Components	There is a need for increased understanding and awareness about transitioning to digital modes of operation. The high cost of land presents a significant hurdle, contributing to the costly process of establishing and setting up these industries.

	These industries face substantial expenses in research and development, as well as in implementing digital technology, which makes its adoption financially demanding.
	The document acquisition process is lengthy, leading individuals to avoid these time-consuming procedures. The associated paperwork is both extensive and cumbersome.
	Limited knowledge among individuals about export procedures exists. People lack awareness about the international market and relevant products, making trade a challenging process.
	Skilled labor remains in short supply.
	These industries encounter restricted market access and possess limited exposure to modern packaging technology.
Agricultural implements	A deficiency of available infrastructural facilities poses a challenge to these markets.
	The industry lacks access to affordable technology solutions and adequate infrastructural resources.
	Products often sell at lower prices, and producers typically lack familiarity with digital tools such as online lead generation, complicating the marketing process.
	A shortage of skilled labor is observed, and the working conditions for these laborers are subpar.
	These industries encounter limited opportunities for collateral-free loans, which deters them from pursuing the application process.
	Awareness regarding export procedures, compliance, and international markets is restricted.
	Tax compliance and protracted paperwork procedures serve as obstacles.
	The costs associated with implementation and production are notably high.
	The cost of land is elevated.
Wooden and Plywood	There is a restricted understanding about making informed investments in digital technologies.
	The cost of land remains elevated.

	The high research and development expenses associated with adopting digital technologies deter these industries from pursuing digitalization.
	Tax compliance proves to be a significant challenge for these industries.
	Limited access to collateral-free loans and constrained market reach are challenges for these industries.
	The availability of skilled labor remains an obstacle faced by these industries
Yarn and Textile	Limited available capital poses a challenge in investing in technological solutions for these industries.
	Market access is constrained, and the branding and packaging procedures do not align with international standards. Assistance is sought in improving branding and packaging.
	Delayed buyer payments extend the transaction process, consuming valuable time.
	These industries have limited awareness about export regulations and procedures.
	Challenges arise from labor laws that are not optimally conducive, affecting smooth operations.
	High production costs without corresponding subsidies are a prevailing concern.
	Difficulties in adopting digital operations stem from limited knowledge and a lack of investment opportunities.
	The cost of acquiring land remains high
IT	Acquiring land at an affordable rate proves challenging for these industries.
	They face difficulties in acquiring the necessary skills to transition to digital operations.
	There's a lack of awareness about environmentally friendly and sustainable solutions.
	Limited resources hinder their grasp of the political, economic, and technological landscape.
	They possess limited understanding of design development and intervention strategies.

	Adequate infrastructural facilities are lacking for these industries.
Electrical	Limited capital hinders investment in technology solutions, and the infrastructural facilities are inadequate.
	The current branding and packaging of goods fall short of international standards, impacting competitiveness.
	Productivity of labor is compromised by subpar working conditions, leading to lower efficiency.
	These industries tend to forgo exports due to their limited understanding of the involved steps and procedures.
	Regulations suffer from inadequacy due to time-consuming documentation, paperwork, and procedural complexities.
	High research and development costs deter adoption of environmentally conscious manufacturing techniques.
	The scarcity of industrial land and the high associated cost present persistent obstacles.
Cotton ginning	The cost of land is notably elevated, creating challenges for these industries to establish their factories.
	High implementation costs, along with considerable research and development expenses, pose drawbacks for these industries.
	The productivity of laborers is hindered by the absence of sufficient skilling opportunities.
	These industries lack the necessary technology to align with the packaging and branding standards prevalent in international markets.

4.7 Snapshot of constraints by geography

District/Geographical Cluster	Constraints
Bathinda	The high electricity rates, lack of awareness regarding the different schemes, absence of a legal binding between the parties can be seen as a hinderance.
	There is a shortage of skilled labourers, especially women workers, thus the production process becomes difficult. After receiving the training, workers tend to migrate to other places for finding better job opportunities and better pay. Some workers tend to migrate due to the prevalent scenarios of theft, robbery etc.
	The process of obtaining a CLU (Change of Land Use) is a big problem for industrialists since it calls for several approvals from various authorities, which adds up to a lengthy and complicated process that makes conducting business more difficult.
	There are major issues in payments from buyers. There should be a mechanism to prosecute the buyers for late payments.
	There is a lack of awareness regarding the loan schemes and the process of obtaining or availing the loans among the self-help groups and the MSMEs. The process should be made easier, and guidance must be made available for the same. Loans without collateral are hard to obtain.
Fazilka	The procedure of initiating the use of Solar plants at times may get delayed despite the completion of all the necessary paperwork.
	The period for the completion of the power load incrementing process is 7 days, however, the process has taken longer time than anticipated. The energy and power cutbacks are unpredictable because there is no previous intimation regarding the power cuts.
	Cotton has limited export potential due to its high cost. Comparing the market fees to other states like Rajasthan, where they are negligible, the market costs are greater, by roughly 2%.
	Loans can be easily availed through private banks. However, obtaining the same from the government banks is challenging.
	The SHG's face troubles which can be resolved by initiating women's training programmes, closer to their homes and neighbourhoods.

Moga	Limited support available with respect to branding and marketing of the goods produced by SHG. There is a lack of knowledge and awareness regarding the sales of products through an online mode among them. The process of completing the extensive paperwork and documentation for starting an enterprise, becomes very time-consuming among industries. The issues concerning delayed payment are tardy. There is an absence of ESI hospitals and fire stations available in the vicinity which causes a lot of discomfort.
Barnala	The issues pertaining to banks, including high interest rates and lack of awareness about different schemes does exist. Lack of awareness of the banks or their unwillingness to comply with different schemes is hindering the progress of MSMEs. MSMEs are unaware of schemes which requires the organisation of seminars focused on technology, which would contribute to the overall growth and development of the MSMEs. The industries in this district do aim to expand their exports but providing guidance and support for such export activities is crucial to expand the reach of MSMEs in international markets. In order to enable MSME's to benefit in their operations; subsidies, well-defined schemes, efficient sales processes, and simplified procedures must be offered. The government should take necessary steps to improve the solid waste management practices, thereby ensuring a cleaner and healthier environment. People tend to avoid utilising green gases since there is no system in place to regulate their use.
Muktsar	The process of obtaining official documentation and the extensive paperwork required by government officials is tiresome. Delays and onerous documentation make it difficult to obtain financial assistance and subsidies. The interest rates imposed on the loans provided by the government banks is high. There is no awareness regarding the CGTMSE schemes, which hinders the ability of the industries to avail its services. There are limited export opportunities for the MSME units and industries in the district. The ability to adapt to modern technology and install new machineries acts

	as an obstacle for the MSMEs due to lack of funding and bureaucratic delays. There is a shortage of skilled labour in the district. An extra expense that needs to be undertaken by the MSME's is the training cost for the local labour for a period of 6 to 8 months. Hence, there is limited skill development for the labourers.
Amritsar & Tarn-Taran	There is a lack of skilled labour in the district. Measures to enable proper skill training and capacity building must be adopted. The MSME units are hesitant in adopting new and green Technology due to paucity of funds. The export potential of the district is limited due to limited knowledge regarding the same. There is a lack of awareness regarding the schemes of the Government of India. The Agro MSME express concern regarding the testing of food samples at high cost. MSME Facilitation Centers are functional in the district but most of them are understaffed.
Faridkot	The challenges associated with file processing and approval across different departments was addressed and the implementation of a streamlined single window system was proposed to enhance efficiency and simplify administrative procedures. Measures for resolving concerns pertaining to Change of Land Use (CLU) and land-related problems must be undertaken for facilitating smooth industrial operations and ensuring a conducive environment for business growth and expansion. There exist issues related to packaging, branding, and marketing, which could enhance the product visibility, market competitiveness, and consumer engagement. The fees associated with the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) is high for industries to consider/pay. The sugarcane industries face import related issues, which hampers smooth trade and growth of the sugar industry. There lacks a proper mechanism for addressing transport related issues for the purpose of improving connectivity and reducing logistical challenges within the district.
Hoshiarpur	There are vacancies of officers at the block level which hinders with the

	process of spreading awareness on MSME schemes and supporting the SHGs. There is a shortage of coordinated capacity building trainings with dedicated handholding, to address capacity outrange and improve skills at all levels. At times it proves to be difficult in sourcing skilled labour for MSMEs. The lack of staff and inadequate skill training caused by outmoded equipment in ITIs need to be addressed at the district level. Provisions for more than 50% subsidy for green energy initiatives as means of promoting sustainable practices in the industry are required by the associations.
Kapurthala	The government rules and regulations are not revised regularly which dampens the process of obtaining subsidies for MSMEs. The HUD (Housing and Urban Development) building laws needs to be amended to accommodate small industries. The issues pertaining to water usage, labour shortage, lack of diversification and lack of support from the municipal corporation remains a prominent drawback. A major challenge faced by the industries is the shortage of labour as labourers are not interested in performing the tasks assigned to them. The outdated machinery and lack of manpower in ITIs, hinder skills training at the district level.
Mandi Gobindgarh	There is an absence of scheme in relation to scrap recycling for the promotion of scrap re-usage. It has come under knowledge that Mandi Gobindgarh is the hub of the steel industry, and there is a need to promote the scrap usage. It was also highlighted that other states are providing incentives for the same, which necessitates the need for the Government of Punjab to promote the scrap industry and provide the relevant incentives to support the MSMEs. A pertinent issue raised by a few industrialists was that, they are unable to utilize their full capacity of the factories due to an increase in the costs of raw material, labour and so on. Issues related to electricity widely exists in the district. In order to resolve the same, it was suggested that the government should invest in infrastructure to minimize the transmission losses. Some incentives must

	also be implemented to promote the usage of green energy.
	It was highlighted by the members of the Self-help groups that they are unaware about the various government schemes that have been implemented for the benefit of such groups. Measures to inform and educate these groups for the same must be undertaken.
	There are issues concerning the export system as well. With respect to export promotion, it was suggested that the government should focus on creating a database for the buyers and sellers. The government need to provide new exporters with the necessary information on what it takes to be an exporter.
Pathankot	There is an absence of capacity building trainings at all levels to facilitate stronger coordination and support to the industries. Women-led MSMEs require more focused capacity-building training programs and increased awareness regarding the policies as well as the benefits under the MSME scheme.
	There is a need for an institute to train local labor in Pathankot due to shortage of skilled workers within the district. Industries rely on expensive labour from other regions like Delhi and Ludhiana. Pathankot lacks incentives compared to its neighbouring districts like Kathua in J&K and Himachal, leading to the migration of industrialists.
	Pathankot products needs to be included more in the One District One Product (ODOP).
	The industrialists are unable to install solar panels for green energy due to their high cost compared to commercial power.
Batala	There is a lack of exhibition centres in Batala and Gurdaspur to display the products manufactured by the industries and there is a lack of marketing support from the government as well.
	There is a lack of skilled labor, for which Beant college representatives have announced that a new curriculum is being upgraded and relevant skill development is being undertaken for the students.
	There must be a Standardized accreditation from the Punjab government to recognize the product manufactured and made in Punjab.
Mansa	Electricity Problems like power cuts without prior information are prevalent, especially in the commercial areas.

	Focus on expansion of industries and revision of the benefits on the same was proposed. Relaxation and incentives benefits have been demanded. Compliance issues for women MSME for packaging do exist
Ferozepur	Capacity building programs and skill development initiatives were identified as essential to enhance the capabilities of MSMEs and their workforce.

An outreach plan involving strategic partnerships and communication efforts was discussed to identify and mobilize MSMEs effectively.

Simplifying documentation requirements and increasing awareness of government schemes like CGTMSE and PMEGP are vital for SMEs' access to benefits |
| Ropar | Capacity building programs were highlighted as crucial for enhancing the capabilities of MSMEs and their workforce, ensuring their competitiveness in the market.

Lack of market knowledge and digital literacy, coupled with limited infrastructure, hinder MSMEs' participation and technology adoption in the marketplace.

Awareness and utilization of recourse mechanisms, such as MSME Samadhan, for resolving payment disputes need to be enhanced, along with faster resolution of cases.

Integration of sustainable practices and eco-friendly technologies into the program was recommended to encourage MSMEs to reduce their environmental impact. |
| Nawanshahr | Finance-related challenges, including rejections due to documentation and collateral requirements, limited awareness of government schemes, and time constraints faced by SMEs, were discussed.

Lack of market knowledge and awareness among SMEs and SHG groups hinder their participation and sales, requiring support for market expansion

Simplifying the online dispute resolution mechanism and increasing awareness about it were highlighted as areas for improvement.

Regulatory constraints, access to inputs and credit, technology, market access, and management capacity were identified as major constraints for MSME growth |

Sangrur	Women-led MSMEs require specific interventions to overcome challenges in accessing technical services, markets, and credit
	Micro enterprises expressed the need for knowledge, technology support, and access to financing opportunities to participate effectively in the marketplace.
	Limited market access, technology obsolescence, and waste management were identified as challenges for MSMEs...
	Quicker and smoother verification procedures for Udyam registration were emphasized to support MSMEs
Mohali	Continuous Capacity Building/Awareness of MSMEs about various schemes/policies of the State and GoI
	Institutional Strengthening of DIC's, Capacity Building of the DIC Staff, technical skills to prepare the DPR etc
	Knowledge sharing sessions/exposure visits about the technology, quality, process of manufacturing etc.
Ludhiana	Developing a Vyapar Sahayak (business facilitator) project wherein SIPO and BLEO will be identified and shall support the programme
	Capacity building across various schemes, especially awareness amongst exporters
	Discounting of Bills is not happening on the TReDS Portal
	ODR should be setup in Punjab
	State CGTMSE scheme would be adopted which would cover its guarantee
	Need to strengthen the DIC office.
	Will also encourage MSMEs in adoption of industry 4.0
Patiala	Electricity Problems like power cuts without prior information especially in the Commercial/ Industrial area.
	Issue of Submersible Pump, lack of support by Corporation.
	Government not supporting to improve the schemes for old MSME's.
	New Industry zones are developed in rural areas, facing the power cut issues and due to connectivity of links roads, facing the problem of roads and safety for carrying goods.
	Facing the issue of Industrial waste, no support from the department, after following multiple times follow up.
	Compliance issues regarding the extra fees to paid to consultant, Pollution control board and the company.

| | Almost 5 years ago there was no cutting tool cluster established till now, and industrialists already invested lots of expenditure on the same.

Existing upgradation for incentive and increase 2% subsidy.

There is no solution for Domestic and hazardous waste management.

The government is unable to provide proper electricity and water for MSME's.

Incentives Issues for MSME's.

Establish better communication channels between power distribution companies and commercial / industries areas to provide prior information about power cuts.

Advocate for training programs that educate industrialists on maintenance and troubleshooting techniques for submersible Pumps.

Encourage the government to provide financial incentives, tax breaks, or grants to promote the modernization and expansion of Old MSME's.

Engage with the government and local communities to address power cut issues by investing in alternative energy solutions or improving the reliability of the existing grid infrastructure.

Encourage the government to provide incentives for implementing proper waste management practices and technologies |
|---|---|

SECTION 5

Key gaps in MSME Support, policy development

Section 5: Key gaps in MSME support, policy development and delivery

Mapping of the Institutions and Agencies in the State for MSME development

Multiple departments have introduced initiatives for the MSMEs in the state to provide them subsidies and overall contribute to MSME sectoral growth in Punjab. Tabled below is the contribution/support provided to MSMEs department-wise.

S. No	Department	Contribution/ Support provided to MSMEs.
1	Department of Retail Service Industry[45]	• Allowed FAR of 1:3 in the state. • Allowed higher ground coverage up to 70% • The retail project will be allowed to set up the Recreation Ground (RG) area for the customers. • Allowed larger number of car parks in retail development without FAR implications. • The restriction on building heights will be relaxed subject to air safety norms.

2.	Department of Labour[46]	• The State will allow women employees to work in night shifts subject to the employer providing the necessary security and other requisite arrangements for its women employees.
		• In order to promote the retail industry in Punjab, and generate employment opportunities for local youth, the State will provide following relaxation:
		  i. Retail enterprises shall be allowed to stay open 365 days a year provided employees are given compulsory weekly offs without any deduction of benefits.
		  ii. Retail enterprises and warehouses shall be allowed to stay open 24*7 in 3 shifts, women employees shall be allowed to work in night shifts till 11 pm, provided

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[45] https://msme.icai.org/wp-content/uploads/2022/12/MSME-Schemes-Punjab.pdf

[46] https://msme.icai.org/wp-content/uploads/2022/12/MSME-Schemes-Punjab.pdf

		the employer provides necessary security and arranges to ensure women employees reach home safe.
3.	Department of Science and Technology/Punjab Pollution Control Board[47]	• Punjab Pollution Control Board will give exemption from Grant of Consent to Establish/Consent to Operate for Green category Industries. • Punjab Pollution Control Board will allow Auto-Renewal of Consent to Establish and enhancement of validity period. Punjab Pollution Control Board will treat cutting and sorting as Green Industry. • IT Industry will be given exemption from clearance from PPCB.
4.	Department of Transport[48]	• The State would grant exemption from motor vehicle tax on buses plied by the industry for its employees.
5.	Department of Food and Civil Supplies[49]	• Food and Grocery business retail (only perishable goods) shall be included under "Essential Services" and Stocking limits for essential commodities under Essential Commodities Act will be reviewed for retail enterprises.
6.	Department of Industries & Commerce/Punjab Small Industries & Export Corporation[50]	• Duly identified MSME service activities shall be permitted in the zoning regulations of industrial parks and estates and zoning regulations will be liberalized to provide for flatted factories. • To promote the growth of MSMEs, the Punjab government plans to build 20 rural industrial clusters and 15 industrial parks. It will also prioritise start-ups and innovation by creating the finest business environment possible in the state.

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[47] https://msme.icai.org/wp-content/uploads/2022/12/MSME-Schemes-Punjab.pdf

[48] https://msme.icai.org/wp-content/uploads/2022/12/MSME-Schemes-Punjab.pdf

[49] https://msme.icai.org/wp-content/uploads/2022/12/MSME-Schemes-Punjab.pdf

[50] https://msme.icai.org/wp-content/uploads/2022/12/MSME-Schemes-Punjab.pdf

		• The government has also set up 'MSME Punjab', as part of the Punjab Industrial and Business Development Authority to focus on the development of MSMEs by addressing the following key functions: (i) Enhancing the competitiveness of MSMEs in the changed economic scenario (ii) Ensuring adequate flow of credit from financial institutions/banks (iii) Providing support for technology upgradation and modernization (iv) Providing modern testing facilities and quality certification (v) Providing access to modern management practices and (vi) Providing support for product development, design intervention and packaging.
7.	Punjab Industrial and Business Development Policy 2022 for MSMEs[51]	• Khadi and Village Industries Development which is being looked after by Khadi and Village Industries Board would also be supported as part of the MSME sector. • The State would set up 'MSME Punjab', as a dedicated wing of Department of Industries & Commerce, Punjab for the focused development of MSMEs • MSME Punjab will have dedicated divisions and requisite competencies to provide necessary assistance to MSME units in Access to Finance/Credit, Access to Technology, Access to Market, Access to Skills and other needs of the Sector. • Effective Single Window System at the District level will be strengthened. • The State will set up one Technology Centre for each major industrial cluster. Technology Centre shall act as a hub of research and demonstration of latest tools and technological know-how, innovation & design services, prototyping, testing & calibration, incubation and training.

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[51] https://pbindustries.gov.in/static/assets/docs/Industrial_Policy_2022.pdf

		• The State will aim to set up one Common Facility Centre (CFC) in each major industrial cluster.
		• The land of the existing Quality Marking Centres (QMC's) and IDCs as technology centres and common facility shall be utilized effectively for supporting the MSME sector.
		• The State would ensure adoption of technology upgradation and modernization schemes for MSMEs such as Credit Linked Capital Subsidy Scheme (CLCSS), Technology and Quality Upgradation Scheme (TEQUP), Lean Manufacturing, Quality Management Standards and Quality Technology Tools (QMS & QTT) and ZED (Zero Effect Zero Defect). The State would also make its own scheme to promote these concepts.
		• The State will incentivize audit of water, energy and safety to promote technology adoption by MSME units.
		• The State would take a number of measures to extend export and marketing support to MSMEs: (i) The State would encourage various E-commerce portals for online trading and marketing of MSME products. (ii) The State would make MSME units aware and encourage them to register on Government E-Market Place to avail of opportunities in the Government procurement. (iii) The State will collect marketing intelligence for tracking and forecasting trends in demand and linkages with raw materials and technology. The information should be disseminated to MSME units. (iv) The State will facilitate ancillary units and supply clusters around the Ultra Mega/Mega/Anchor units and around the CPSUs like as Rail Coach Factory, Kapurthala, DMW, Patiala. (v) Annual buyer & Seller Meets and Vendor Development Programmes in respect of large industry, CPSU and major State PSUs will be

		organized by the State in collaboration with MSME-DI (vi) The state shall provide financial assistance to MSME for showcasing their products at local, national and international event. (vii) Greater thrust will be given on income generating economic activities by women and a system will be developed for marketing of their home made traditional articles such as "durries, khes, embroidery work, Phulkaries, hosiery etc." on a regular basis. • The State will provide developed sheds, flatted factories and plug and play infrastructure for MSMEs across the districts. • The State will facilitate MSME units in seeking credit from financial institutions by providing them required information and handholding in documentation. • The State shall facilitate raising funds through National Stock Exchange (NSE) dedicated platform for SME's, called 'Emerge' where small companies can list and raise productive capital. • The State will partner with suitable agencies to facilitate benefits to greater number of MSMEs in the state. It shall support MSMEs in preparing applications and obtaining approvals under respective schemes. • The State will provide Growth Accelerator services for MSMEs. It shall involve designing a bespoke intervention for each MSME sector targeting their challenges and encompass a blend of coaching, training, and handholding. • The State will facilitate setting up of common environment infrastructure such as CETPs in various MSME clusters. • A panel of arbitrators shall be appointed to expedite the disposal of cases for MSMEs. • The State will closely monitor implementation of RBI's framework for identification, nursing and providing rehabilitation package to potentially viable sick units of

8.	Department of Animal Husbandry infrastructure Development fund[52]	• Credit Guarantee fund of Rs. 750 crores to be managed by NABARD, upto 25% of credit facility for MSMEs. • For MSMEs and Individual entrepreneurs, the schemes of PMFME and AHIDF may be leveraged for setting up a chilling unit.

Sector Specific Incentives for MSMEs

The State has strong presence in many sectors and the policy aims to consolidate and provide further impetus to these sectors for growth. Apart from focusing on the State's traditional strength, the State would focus on some of the emerging manufacturing and service industry sectors, which have potential for the State. Following are the sector specific incentives.

a. HIGH TECH Manufacturing[53]

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD &

50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to

125% FCI

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[52] https://dahd.nic.in/sites/default/filess/2910-Booklet%20on%20AH%20Schemes-E-Web.pdf

[5353] Compendium of MSME Policy and Incentive Schemes of Punjab

• Capital Subsidy to IT/ITES units- 50 % of FCI subject to ceiling of INR 2.5 Cr. per unit & 100% reimbursement of all taxes and fees paid for purchase of raw material for food processing units up to 10 years for all category of units

b. Apparels

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD & 50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to

125% FCI

• Capital Subsidy to IT/ITES units- 50 % of FCI subject to ceiling of

INR 2.5 Cr. per unit and 5% interest subsidy for MSMEs for new/expansion/ diversification in addition to benefits under ATUF for apparel and made ups and technical textiles for 3 years subject to a maximum of 10 lakh per year.

c. Footwear & Accessories

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD & 50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to 125% FCI Capital Subsidy to IT/ITES units- 50 % of FCI subject to ceiling of INR 2.5 Cr. per unit

d. Food Processing Units

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD & 50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to 125% FCI

• Capital Subsidy to IT/ITES units- 50 % of FCI subject to ceiling of Compendium of MSME Policy and Incentive Schemes of Punjab INR 2.5 Cr. per unit and 100% reimbursement of all taxes and fees paid for purchase of raw material for food processing units up to 10 years for all category of units.

e. Electronics

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD & 50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to 125% FCI

• Additional support to units under M-SIPS scheme, DEITY, GOI50% top up of Capex support provided by DEITY, GOI to units setting up in notified EMCs under M-SIPS of GOI. The support shall be provided to first 10 Anchor units limited to maximum INR 10 Cr. per unit.

f. Aerospace and Defence

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD & 50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to 125% FCI

• Capital Subsidy to IT/ITES units- 50 % of FCI subject to ceiling of INR 2.5 Cr. per unit

g. Biotechnology & Pharmaceuticals

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD & 50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to 125% FCI

h. Logistics

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD & 50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to 125% FCI

i. Tourism and Hospitality

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD &

50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to 125% FCI 100% exemption from entertainment tax to all new investments in special theme parks/ amusement parks/ water parks/ adventure parks/ cinematic tourism like film institute/ film city/ film studio/ theatres/ mini theatres etc.

j. Incubators

• MSME – 100% Reimbursement of net SGST, Exemption in ED, SD

• MSME – 5% Interest Subsidy for Border and Kandi Area

• MSME – Assistance for Finance, Technology, Marketing & Exports

• Large – 75% of net SGST, 100% Exemption in ED, SD & 50% Property Tax

• Thrust Sector – 100% of net SGST, 100% Exemption in ED, SD & 50% P Tax

• Early Bird Units in New Industrial Parks – 100% of net SGST up to 125% FCI

• Capital Subsidy to IT/ITES units- 50 % of FCI subject to ceiling of INR 2.5 Cr. per unit

Existing Capacity: Summary of existing capacity of Industries Department and DICs by functional areas and other key support agencies.

Below mentioned is a breakup of the departmental strength in Department of Industries and Commerce, Punjab.

EXISTING STRENGTH OF DEPARTMENT – HEAD OFFICE		
Total Sanctioned Post	Vacant Post	Staff at Present
288	60	228

Sr. No.	Designation	Number of staff	Sr. No.	Designation	Number of Staff
1.	Additional Director	3 (1)	7.	Senior Assistant	100 (28)
2.	Joint Director	5 (3)	8.	Clerk	111(18)
3.	Deputy Director	5 (2)	9.	Business Facilitation Officer	5 (1-PIU)
4.	Assistant Director/ Project Manager	14 (7)	10.	Peon	22
5.	Superintendent - 1	6	11.	Driver	4
6.	Superintendent - 2	12	12.	Other Staff (Including PS Staff and DI Staff)	1

(Texts in the brackets indicate vacant post)

Existing Strength of Department – DIC Level		
Total Sanctioned Post	Vacant Post	Number of Present Staff
510	131	379

Sr. No.	District	GM	FM	Supp. Total	Sr. Asst Filled.	Clerk Vacant	BFO	SIPO	BLEO	Additional Charge (AC)
1	Amritsar	0	4(1)	13	10	3	1	6(3)	5	Officiating Charge to PM
2	Barnala	0	2(1)	8	6	2	1	3	2	AC-GM, Bathinda
3	Bathinda	1	3(1)	12	10	2	1	4	4	NA
4	Faridkot	0	3(2)	8	6	2	1	3	3	AC-GM, Moga
5	Fatehgarh Sahib	1	4(1)	13	9	4	1	5	4(1)	NA
6	Fazilka	0	3(1)	8	5	3	1	3(2)	3(1)	Officiating Charges to FM
7	Ferozepur	0	4(1)	12	5	7	1	4	3(1)	AC-GM Shri Mukstar Sahib
8	Gurdaspur	1	4	12	9	3	1	4	5(2)	NA
9	Hoshiarpur	1	4(2)	13	10	3	1	4(1)	4(1)	NA
10	Jalandhar	1	5(1)	13	9	4	1	6(3)	5(4)	NA

11	Kapurthala	1	2	8	5	3	1	3(1)	4(3)	NA
12	Ludhiana	1	5(1)	13	11	2	2	6(1)	7(3)	NA
13	Malerkotla	0	3	12	10	2	1	4	9(4)	Officiating Charges to FM
14	Mansa	0	3	8	5	3	1	3(1)	3	Officiating Charges to FM
15	Moga	1	3(2)	8	6	2	1	3(2)	4(1)	NA
16	Pathankot	1	3	8	5	3	1	3(1)	2	NA
17	Patiala	1	5	13	12	1	1	6(1)	6(1)	NA
18	Rupnagar	0	3	8	4	4	1	3	5	AC- GM-SBS Nagar
19	S.A.S Nagar	1	5 (2)	13	7	6	1	6	3 (1)	NA
20	Sangrur	0	0	0	0	0	0	0	0	NA
21	SBS Nagar	1	2 (1)	8	6	2	1	3 (1)	3 (1)	NA
22	Sri Muktsar Sahib	1	3 (1)	8	4	4	1	3 (1)	3 (1)	NA
23	Tarn Taran	0	2	8	5	3	1	3 (2)	4	Officiating Charge to FM
	Total	12	72	227	150	68	23	85	91	

The Department of Industries, Punjab is responsible for formulating policies and guidelines to promote industrial growth, including MSME development. It has a dedicated team that focuses on policy development and implementation.

It implements various programs and schemes to support MSMEs. These programs cover areas such as financial assistance, technology upgradation, skill development, and infrastructure development. The department has the necessary capacity to deliver these programs effectively. The department carries out monitoring and evaluation activities to assess the impact and effectiveness of its initiatives. It has mechanisms in place to monitor the progress of projects, evaluate outcomes, and make necessary improvements based on feedback.

The department maintains data systems to collect and analyse information related to MSMEs. This includes data on industrial units, investments, employment, and other relevant parameters. The data systems enable evidence-based decision-making and policy formulation.

The Department ensures that industrial units comply with environmental and social regulations. It collaborates with relevant authorities to monitor compliance, conduct inspections, and take necessary actions to address any violations.

The department follows a transparent and efficient procurement process for goods, services, and works required for its initiatives. It adheres to government procurement guidelines and ensures fairness and competitiveness

in the procurement process.

District Industry Centers (DICs):

DICs serve as key support agencies at the district level and provide various services to MSMEs. Their capacities may vary across districts, but they generally offer the following functional areas:

• DICs help MSMEs in identifying viable projects and provide guidance and support throughout the project initiation phase. They assist entrepreneurs in understanding various aspects, including market potential, funding options, and regulatory requirements.

• DICs conduct entrepreneurship development programs and training sessions to enhance the skills and capacities of MSMEs. These programs focus on areas such as business planning, financial management, marketing, and technology adoption.

• DICs facilitate access to financial assistance schemes and link MSMEs with financial institutions for loans and credit facilities. They provide guidance on the application process and support in obtaining financial support for business expansion or technology upgradation.

• DICs collaborate with training institutes and organizations to provide skill development programs tailored to the needs of MSMEs. These programs aim to enhance the employability of the workforce and bridge the skill gaps in the industry.

• DICs assist MSMEs in accessing markets and promoting their products. They organize trade fairs, exhibitions, buyer-seller meets, and provide guidance on marketing strategies, branding, and export opportunities.

• DICs help MSMEs in adopting advanced technologies and upgrading their production processes. They provide information on available technologies, facilitate technology tie-ups, and support in implementing technology upgradation projects.

Portals: Mapping existing State Government portals that deliver services to MSMEs and their current usage; assessment of these portals in delivering services and gaps if any

In Punjab, the state government has launched various portals to deliver services to MSMEs and facilitate their growth. Here are some of the existing portals along with their current usage and an assessment of their services:

• **Single Window Portal[54]:** The state government has setup a single window in every district to ensure speedy clearances and to industrialists. single windows will enable them to get clearances for their projects in a prompt, smooth and hassle-free manner. In every district it will enable the industrialists to get clearances without running pillar to post in several offices, thereby saving their lot of time, money, and

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[54] https://www.pppinindia.gov.in/bestpractices/best-practice-detail/unified-regulator-and-single-window-%E2%80%93-invest-punjab

energy. Single Window Portal under Invest Punjab so far has had the following impact -

a) 120+ clearances and services, 36 fiscal incentives approvals brought the under ambit of Invest Punjab Business First Single Window Portal.

b) 1,08,900* clearances/services have been granted through the portal. 1532* applications for fiscal incentives have been processed through online mechanism.

c) 90% clearances provided within stipulated timelines.

d) 6000+ investment projects with proposed investment of more than Rs. 1.4 lakh crores and potential employment of 6 lakh+ received through Invest Punjab Business First Portal**

- **Invest Punjab Portal**: The Invest Punjab portal serves as a single-window clearance system for investors, including MSMEs. It provides information, facilitates approvals, and assists in setting up businesses in the state. The portal has been widely used and appreciated for its user-friendly interface and streamlined services.

- **Punjab State Industries and Export Corporation (PSIEC) Portal:** The PSIEC portal offers services related to industrial plots, sheds, and infrastructure for MSMEs. It allows entrepreneurs to apply for allotment of industrial plots and track the progress of their applications. The portal has been utilized effectively and has streamlined the plot allotment process.

- **Punjab State Industrial Development Corporation (PSIDC) Portal:** The PSIDC portal provides information and services related to financial assistance, technology upgradation, and marketing support for MSMEs. It offers online application submission and tracking facilities. The portal's usage has been moderate, and there is room for improvement in terms of user interface and accessibility.

- **Punjab Municipal Infrastructure Development Company (PMIDC) Portal:** The PMIDC portal focuses on infrastructure development and provides services related to industrial parks, roads, water supply, etc. While the portal is functional, its usage among MSMEs could be enhanced through improved awareness and outreach.

- **Grievance Redressal Portal Punjab**: This is the platform based on web technology which primarily aims to enable submission of grievances by the aggrieved citizens from anywhere and anytime to State Departments who scrutinize and take action for speedy and favorable redress of these grievances. Tracking grievances is also facilitated on this portal through the system generated unique registration number.

The Punjab government has made commendable efforts in developing online portals to deliver services to MSMEs. These portals have simplified processes, increased transparency, and facilitated ease of doing business. However, there are some areas that can be improved:

- **User Experience**: Some portals could benefit from improved user interface and navigation to enhance the overall user experience and make the services more accessible to MSMEs.

- **Awareness and Training:** There is a need for increased awareness among MSMEs about the availability and functionality of these portals. Conducting training programs and awareness campaigns can help bridge this gap.

- **Integration and Interconnectivity**: Integrating different portals and systems can enhance the efficiency and effectiveness of service delivery. Seamless connectivity between different departments and portals would save time and effort for MSMEs.

- **Feedback Mechanism:** Establishing a robust feedback mechanism would allow MSMEs to provide suggestions, report issues, and share their experiences, enabling continuous improvement of the portal services.

In conclusion, while Punjab has made significant progress in developing portals for MSME services, there is room for improvement in terms of user experience, awareness, integration, and feedback mechanisms. Continuous monitoring, feedback analysis, and timely updates can help enhance the effectiveness and usage of these portals, providing better support to MSMEs in the state.
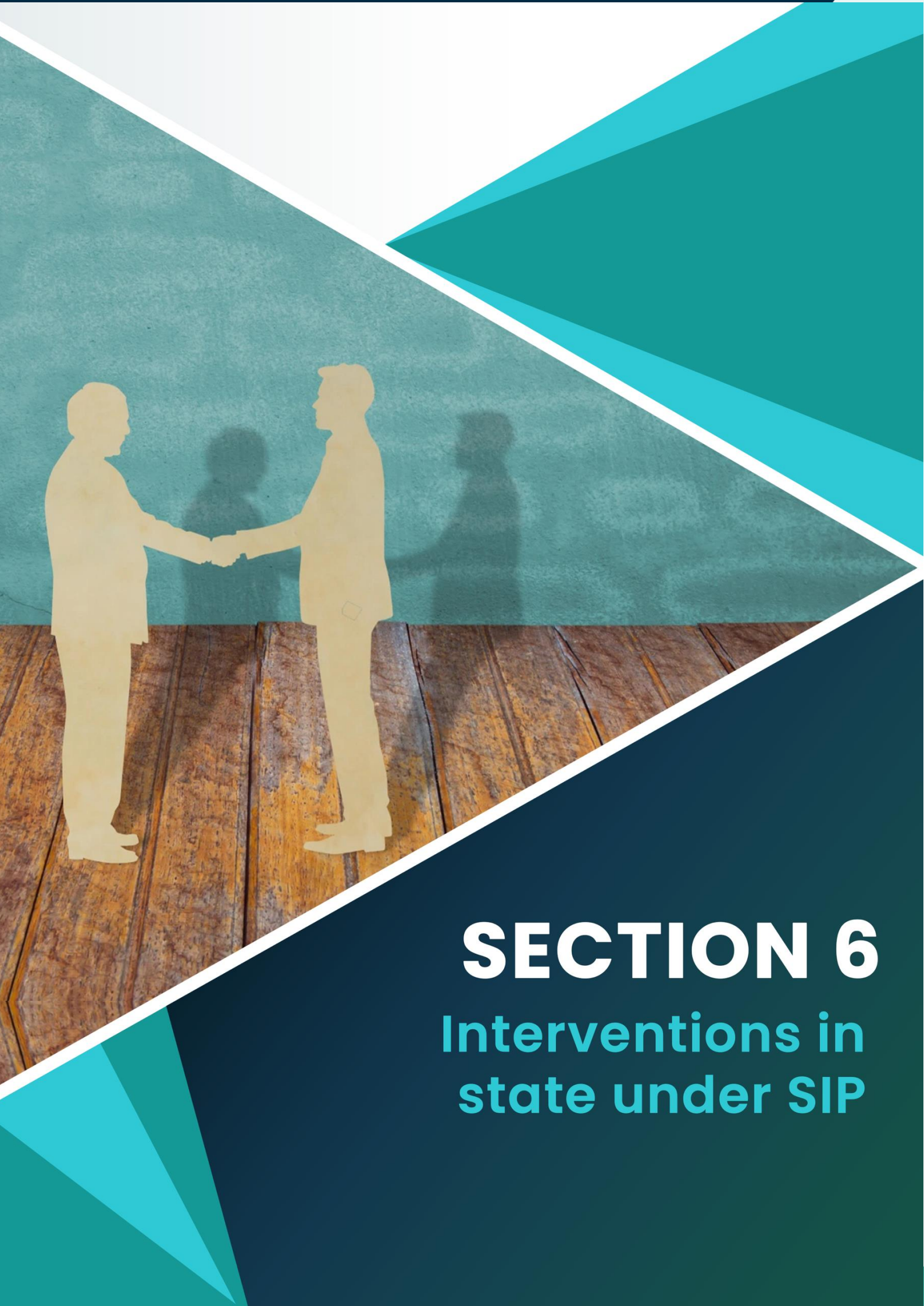
SECTION 6
Interventions in state under SIP

Section 6: Interventions in State under the SIP

The SIP preparation was an extensive exercise undertaken to highlight the target areas of Punjab and accordingly design interventions for the benefits of MSMEs. The interventions proposed as a part of SIP have been developed through primary research, consultation sessions with government departments, consultations with industry associations, women MSMEs, Industrialists and secondary research. A total of **17 interventions** have been proposed with a total budget outlay of **INR 679.98 Cr.** Below is a brief overview of the interventions proposed under RAMP Programme for Punjab: -

S.No.	Name of the Project Intervention	Tentative Cost (In Cr.)
1	Punjab One Platform: One stop solution for a Complete MSME Database, Facilitation and Handholding, and Information Dissemination	48.48
2	Development of a MSME wing at the Department of Industries and Commerce, Punjab	34.1
3	Set up an Export Promotion and Facilitation Cell within Industries and Commerce Department	12.05
4	Capacity Building of Select MSME units in Focus Sectors with an objective to enable scaling up of their Business	18.23
5	Capacity Building of Officials of Department of Industries and Commerce on Focus Sectors, Subject Areas and Programs of various Line Ministries of Govt of India	7.95
6	Punjab Online Dispute Resolution Platform: Resolving MSME Delayed Payments in Punjab through development of a state portal	6.72
7	Setting up of MSME and GEM Facilitation Centres across all districts targeting an aggressive information dissemination drive through Awareness workshops	6.31
8	Encouraging Women-Owned Businesses in Punjab: Leveraging Technology, Market Participation, and Financial Inclusion for SHG Growth	12

9	Organize exposure visits for MSME units in Punjab to boost MSME performance, increase production efficiency and promote outreach & awareness	15.6
10	Digital Transformation of MSMEs In Punjab	100
11	Encouraging Green Manufacturing Practices in MSMEs by Making them Energy Efficient	193.75
12	Augmenting Industrial Training infrastructure in Govt ITIs – Setting of a Training Studio to impart industrial training using Virtual Reality Technology	22.25
13	Encouraging Manufacturing Practices leading to Circular Economy in MSME units	2.8
14	Empowering MSMEs by enabling them to produce quality products by linking them with Testing Lab, Quality Control Centers & R&D Centers	104
15	Deployment of "Vyapar Sahayak" to aid and support to MSMEs across districts in Punjab in availing the various benefits extended by Central & State Governments	38
16	Foster Institutional Capabilities and Strengthening Capacities of Government ITIs and Polytechnics in Punjab thereby creating pool of skilled resources for MSMEs	7.59
17	Creation of enabling environment and facilitation towards adopting Industry 4.0 in high potential sectors of Punjab such as Automobile, Agriculture Implements, Machine tools & Hand Tools	50.15
Total		**INR 679.98 Cr**

<u>**Details of Proposed Project Interventions:**</u>

6.1 Punjab One Platform: One stop solution for a Complete MSME Database, Facilitation and Handholding, and Information Dissemination

Project Summary:

A statewide MSME **door to door campaign**, covering all 6 Lakh+ registered MSMEs (as on date on the Udyam portal) and all the unregistered MSMEs (data of which shall be fetched from various sources like PSPCL, Labour department, GST etc.) across 23 districts shall help in the **development of a comprehensive and reliable database** for the state of Punjab. This reliable database shall serve as a sole source of truth for the MSMEs in the state and help cater to the specific needs of the MSMEs such as export needs, development needs, cluster needs, sector specific needs, increasing scheme participation etc. The primary survey and stakeholder consultations highlighted that the challenges faced by MSMEs, and the assistance required by them can be broadly categorized into – export needs, access to finance, handholding in paperwork, access to skilled labour etc. The stakeholder consultations with the GM DICs and Industry Associations at the district level also highlighted the need to increase and strengthen the capacities of the DIC offices across the state.

Moreover, as a part of the project **Punjab One Portal** – a Portal of Portals shall be deployed that shall serve as a platform for information dissemination, tracking of interventions, platform integration, repository of knowledge products, dashboard for learning management system etc.

Existing Competencies for the specific theme:

The Government of Punjab has close to 6 lakh+ registered MSMEs on Udyam Portal in the state. In terms of human resource, there exist 69 BLEOs and 73 SIPOs across the state in the districts.

The Government of Punjab recognizes the need for accurate and up-to-date information about local businesses and Micro, Small, and Medium Enterprises (MSMEs) operating within the state. However, lack of a centralized repository of reliable data poses significant challenges for informed decision-making, policy formulation, and targeted support for the business ecosystem in Punjab. During the extensive primary research that was undertaken for the development of Strategic Investment Plan (SIP) for Punjab it was inferred that the units across the district required support for export promotion, enrolling in government schemes, access to credit/finance, sector-specific needs especially for women MSMEs, technology needs, need for skilled labour etc.

Overall, the absence of a comprehensive and reliable database of local businesses and MSMEs in Punjab poses significant challenges for effective policymaking, targeted support, and sustainable economic growth. Addressing the issues faced by MSMEs through a robust extensive campaign, with appropriate support from the existing human resource will provide accurate, up-to-date, and trustworthy data to drive informed decision-making and foster the development of Punjab's business ecosystem.

Alignment of scheme/project/proposal with RAMP objectives

The proposed project aligns with **Result Area 1: Strengthening Institutions and Governance of the MSME Programme.** The extensive exercise of database collection of the MSMEs in Punjab shall help address sector specific needs of the MSMEs and align with the identified interventions under the RAMP Programme.

Understanding the Problem Statement

During our extensive primary survey as a part of SIP preparation, it was gauged that various challenges were faced by MSMEs when it comes to labour, access to finance, exposure visits and business expansion as well.

Approximately 72% of MSMEs encountered difficulties primarily related to the scarcity of skilled labour, making it the most prevalent challenge. Additionally, around 36% of MSMEs faced the issue of insufficient labour availability. The working conditions within these businesses were suboptimal for a portion of them, further exacerbating the challenges. As a result of these aforementioned factors, the overall productivity of labour emerged as a significant obstacle, affecting approximately 16% of MSMEs.

In terms of access to finance, the most critical challenge revolves around delayed payments from buyers, impacting nearly 48% of MSMEs. Another pressing concern is the constrained availability of collateral-free loans, coupled with cumbersome and time-consuming paperwork processes, affecting 34% of MSMEs. Additionally, challenges concerning the availability of adequate working capital were reported by 20% of MSMEs. Delays in responses within the Online Dispute Resolution framework on the Samadhan Portal also pose difficulties. A noteworthy challenge is the limited registration of buyers on the TReDS platform, further impeding MSMEs' access to finance.

In the realm of exports, MSMEs encounter multiple hurdles. The most prominent issue revolves around a restricted understanding of export procedures and compliance, impacting approximately 55% of MSMEs. Another significant challenge is the dearth of knowledge concerning the intricate political, economic, social, and technological dynamics, affecting 38% of MSMEs. Additional hurdles encompass limited familiarity with product offerings and the international market landscape. Moreover, there is a scarcity of information regarding the demand and supply dynamics for the selected products, alongside inadequate awareness about competition within foreign market.

Hence, undertaking this dynamic exercise to create an appropriate database for all the MSMEs shall help identify the sector specific needs and help identify the unregistered MSMEs in the state.

Proposed Project Design, Concept Feasibility & Viability

The proposed project aims to enhance data interoperability and decision-making for Punjab's business ecosystem through the implementation of a comprehensive database creation initiative, followed by the development of a RAMP monitoring platform. This section evaluates the project design, concept feasibility, and viability.

Project Design:

The project design outlines the key components, goals, and recommendations for the door-to-door campaign initiative. It includes the development of a mobile app for the enumerators for form filling and Punjab One portal. The design incorporates door-to-door data, verification mechanisms, geospatial mapping, and real-time tracking and monitoring. The deputed BLEOs and SIPOs across the districts shall also support in conducting the campaign. The project design is comprehensive and addresses the critical aspects required for successful implementation. The Punjab One Platform, proposed in the project is also an essential component to track the state's performance on RAMP indicators and designed interventions while serving other broader purpose.

Feasibility:

The concept of enhancing data collection and decision-making for Punjab's business ecosystem through the campaign is feasible. The availability of technology such as mobile apps, online portals, and map services makes data verification and analysis more efficient. Given there are 6 lakhs+ registered MSMEs in the state and multiple existing unregistered MSMEs, it becomes imperative to undertake this exercise to develop a single source of

truth for Punjab. The project leverages existing digital tools, and its recommendations align with the state's objectives and priorities. The concept also recognizes the need for stakeholder engagement and collaboration, ensuring the project's feasibility and effectiveness.

Viability:

The proposed project is viable based on several factors. First, it addresses the critical challenges faced by the government in policymaking, resource allocation, and targeted support for businesses and MSMEs. By providing accurate and up-to-date data, the project enables evidence-based decision-making, strategic investment planning, and policy formulation. Second, the project leverages existing technologies and infrastructure, minimizing implementation barriers and costs. Third, the project's goals align with RAMP program objectives, ensuring support and alignment with the state's broader initiatives. Finally, the project's long-term sustainability is ensured through protocols for data maintenance, updates, and future iterations.

Overall, the proposed project design demonstrates a feasible and viable approach to enhancing data collection and decision-making for Punjab's business ecosystem.

Approach and Methodology for Execution/Implementation

The approach and methodology for the execution and implementation of the project involve a systematic and structured process to ensure its successful implementation and can be outlined as follows: -

Step 1: Comprehensive Data Triangulation
1. Identification of a master database for industry units from PSPCL, Labour department, GST etc. for the purpose of campaign.
2. Identification of MSME units in the master database and collect detailed information about local businesses and MSMEs operating in Punjab, including their size, sector, employment, revenue, longitude and latitude details, pollution category, product profile, export profile (HSN codes), UAN/UR number (if registered), expansion plans etc. number of women director (in case any) etc.
3. In case the industry unit identified from the database is found unregistered, the agency will be ensuring UAN/UR registration of the unit.
4. Mapping data with Udyam ID to create a comprehensive database of businesses and MSMEs to establish a centralized repository of accurate and up-to-date information.

Step 2: Verification and Cross-Checking of Master database
1. Conduct door-to-door campaign to cross-verify existing data and validate the information provided by businesses, ensuring data accuracy and reliability.
2. The deputed BLEOs and SIPOs across the districts shall also support in conducting the campaign of the MSME units as they would have a wider understanding of their districts.
3. Implement verification mechanisms to ensure that the collected data is trustworthy and can be used for informed decision-making. In case the data is found to fraudulent, government can take decisions which may affect the benefits, incentives etc. the MSME is entitled to.

Step 3: Real-Time Tracking and Monitoring
1. Develop an app-based solution to track campaigner's locations and their progress in real-time.
2. Monitor the process effectively, ensuring efficient deployment and timely completion of the campaign.

Step 4: Geospatial Mapping and Analysis

1. Leverage online map services to geospatially locate businesses and MSMEs.
2. Visualize business distribution, clustering patterns, and regional dynamics for better analysis and decision-making.

Step 5: Data Accessibility and Transparency
1. Establish a user-friendly public Geo Spatial portal, authorized by the government, to provide access to the MSME directory and query builder for businesses and stakeholders.
2. Ensure transparency in data collection, processing, and dissemination to foster trust and credibility among users.

Step 6: Targeted Support and Policy Formulation
1. Utilize the collected data to identify specific needs, challenges, and opportunities of businesses and MSMEs in Punjab. These could be specific to clusters, sectors and across quantifiable challenge areas.
2. Formulate targeted support measures, policies, and programs to address the identified issues and promote the growth and development of the business ecosystem.

Step 7: Collaboration and inter-departmental Engagement
1. Collaborate with relevant departments and agencies to gather information and cross-verify data.
2. Engage with businesses, MSMEs, and industry associations to ensure their active participation and cooperation in the process.

Step 8: Development of a Punjab One Platform

1. A real time platform shall be created as a part of the project to develop a Punjab One Platform to assess the performance of RAMP indicators and performance of the outlined interventions.
2. Since, the interventions would be milestone based, it is essential to track them in real and deploy mitigation measures if any.
3. Development of dashboards of various initiatives and projects undertaken under the RAMP initiative such as dashboard for learning management system, enrolling of MSMEs into various schemes etc.

The platform shall also encompass the following features such as,

- **Social Media Platform Integration:** User stories will be defined to outline the integration of social media features within the portal. IT professionals will develop APIs and interfaces to connect the portal with various social media platforms. Regular feedback loops will enable adjustments to ensure seamless integration and user-friendly functionality.
- **Monthly Newsletter:** A user-friendly interface will be designed to allow industry associations and Department of Industries and Commerce to easily upload and share monthly newsletters. Content creators will ensure that the portal can handle various formats and sizes of newsletters. Training materials and guides will be created for MSMEs to ensure smooth usage.
- **Central and State Scheme Linkages:** A secure API integration will be established to link the portal with various central schemes. IT professionals will ensure that information is synchronized accurately and regularly updated. User-friendly dashboards will enable MSMEs to easily access scheme details, eligibility criteria, and application procedures. IT professionals will establish a secure connection between the MSME Digital Portal and other existing portals.
- **Marketing and Branding Strategy:** Marketing specialists will develop a comprehensive marketing

strategy aligned with the portal's objectives. Branding elements, including logos, colour schemes, and taglines, will be designed to resonate with the MSME audience. The portal's content will be optimized for SEO to increase visibility and reach.

- **Public Relations Engagement:** PR experts will craft press releases, media kits, and communication strategies to promote the portal. Media interactions, webinars, and outreach campaigns will be organized to create awareness. Regular updates will be shared with stakeholders to highlight achievements and milestones.
- **Comprehensive user training materials, tutorials, and guides will be created**. Helpdesk support will be established to assist users with queries, technical issues, and concerns on schemes.
- Portal maintenance and support.

Proposed team of 5 resources will be deployed to manage the **Punjab One platform**. The scope of work of the proposed resources in provided below:

S.no	Designation	No. of resource	Proposed Location	Scope of work
1	System manager	1	Chandigarh (Head quarter)	Troubleshooting, monitoring, requirement gathering, design, enhancement, documentation, installation, maintenance.
2	Assistant system manager	1	Chandigarh (Head quarter)	Assist in troubleshooting, monitoring, design enhancement, documentation, installation, maintenance.
3	MIS expert	1	Chandigarh (Head quarter)	Develop and maintain the database, coordination with the MIS systems of other departments to ensure timely updated data, undertake data analysis and data triangulation from various data sources for corroboration and ensuring data authenticity.
4	Data scientist	1	Chandigarh (Head quarter)	Data analysis, slice and dice of data for deriving insights, predictive analysis
5	Hardware and network engineer	1	Chandigarh (Head quarter)	Supervise and design hardware installation process. Operating System (OS) installation, troubleshooting networking issues.

Use of ICT/ Innovative Technology for Project Implementation

The development for the Punjab Business and MSME Campaign Initiative will involve the creation of various key components:

Mobile App: A mobile application will be developed to facilitate the data verification process. The app will have

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features such as address search using map services like Google Maps, real-time tracking of campaigners' locations, and data submission. This app shall be used by on-field enumerators for data validation.

Punjab One Portal: A web-based portal will be created for departmental users to monitor the RAMP Programme being implemented across the state which shall also encompass monitoring of the campaign. This will have information on all interventions proposed under RAMP.

The portal will be a one-stop solution for data analysis, insights, MIS reporting, regulatory know how, incentives, government schemes and additionally monitoring of RAMP scheme in the state, spread across target areas and the number of projects. For the MSME Database creation project, the portal shall provide real-time information on the number of campaigners in the field, average time per campaigner, failed attempts, reasons for failure, and other relevant statistics. The project shall have a **Self-Awareness Component** wherein a window will be created for MSMEs that were not visited during the door-to-door process. This feature will allow these MSMEs to provide and verify their information independently. This also provides an option for MSMEs to upload supporting documents, photos, and any additional information required. This also provides an opportunity for unregistered MSMEs to identify themselves and take support in registering on the Udyam portal. With time, new components, features and modules as per the requirement would also be added and developed in the portal, hence it would be a dynamic portal.

Data Integration and Management: Development of a robust system for data integration and management to centralize and store the collected data. Implement data validation and quality control measures to ensure the accuracy and reliability of the collected data. Ensure data security and privacy by adhering to relevant data protection regulations.

Reporting and Analytics: Create reporting and analytics capabilities to generate meaningful insights from the collected data. Develop dashboards and reports for government departments, policymakers, and stakeholders to access and analyse the campaign findings.

Tentative Timelines

Activity	Y1	Y2	Y3	Y4	Y5
Project Initiation	■				
Project Planning	■				
Stakeholder Engagement & Resource Allocation	■				
Configure and deploy cloud-based survey technology, development of MSME Digital portal and train teams	■	■			
Campaign Period – Conduct door-to-door campaign and data collection	■	■			
Verification, cross checking, data verification		■	■	■	■
Data Analysis, reporting and formulation of support measures		■	■	■	■
Implementation of targeted support initiatives		■	■	■	■

Monitoring & Evaluation					

Data analysis will take place periodically from Year 2 to understand the findings received

Estimated Impact of the Project

The implementation of the proposed project to enhance data collection and decision-making for Punjab's business ecosystem is expected to have a significant impact on various stakeholders and the overall economic development of the state. A total of **6 lakh+ MSMEs registered on the Udyam portal as well the unregistered MSMEs** shall be impacted across the state of Punjab as a part of this project. Efforts shall be made to handhold the unregistered MSMEs and get them registered on the Udyam portal. The estimated impact of the project is detailed below:

1. **Informed Decision-Making:** The project will provide accurate and up-to-date data on local businesses and MSMEs, enabling evidence-based decision-making by policymakers. This will lead to more effective policy formulation, targeted interventions, and resource allocation, fostering a conducive business environment and driving economic growth.
2. **Resource Optimization:** The project's comprehensive data collection and analysis will facilitate efficient resource allocation. By identifying areas and sectors with the greatest need for support, the government can channel resources effectively, ensuring they reach the businesses and MSMEs that require them the most. This will lead to optimal resource utilization and maximize the impact of support measures.
3. **Enhanced Investor Confidence and Attraction of Investments**: Reliable and accurate data generated by the project will enhance investor confidence in Punjab's business ecosystem. Moreover, it will lead to better penetration of the champion schemes, initiatives by the state government, and sector specific support that the MSME would require.
4. **Improved Governance and Policy Implementation:** The project's establishment of a robust data infrastructure and utilization of data-driven decision-making will enhance governance and policy implementation. The availability of accurate and up-to-date information will enable policymakers to monitor the effectiveness of policies, identify gaps, and make necessary adjustments to foster a favourable business environment.
5. **Digital Transformation and Innovation:** The project's incorporation of app-based solutions, geospatial mapping, and digital tools will promote digital transformation and innovation.
6. **Registration of unregistered MSMEs on Udyam Portal:** Through this exercise, the unregistered MSMEs shall also be identified and facilitated to register on the Udyam portal. This shall help them in availing the benefits that is being offered by the central ad state government for MSMEs.
7. **Identification of potential beneficiaries for schemes covered under RAMP:** By having data of MSMEs, identification of the unit's requiring enrolment under the schemes covered under the RAMP programme would become easy.

Tentative Costing of the Project

Sl.No.	Component	Tentative Cost (INR Cr)
1	Cost per MSME visit (500 per unit x 6 lakh MSMEs) – this shall include:	30

Sl.No.	Component	Tentative Cost (INR Cr)
	a) Data collection technology and app (software hosted on cloud to monitor campaigner's performance & movement) b) Device Cost (tablet/device for conducting the campaign) c) Travel, food, and lodging of the campaigners. d) Cost for data authentication and random checks to ensure quality of data. e) UAN/ UR registration of unregistered units f) Conduct door-to-door campaign on both registered and unregistered units g) Campaign toolkit and questionnaire design h) Unique record generation i) Deduplicated clean data of the units	
2	MSME Digital Portal, which shall encompass. • Database of the units visited in real time. • Self-survey feature for unregistered MSMEs • Monitoring of the RAMP programme and integration with other existing portals of the state government (on needs basis) • Social Media Platform Integration • RAMP Project Performance Tracking • Upload and sharing of monthly newsletters. • RAMP Project Performance Tracking • Central Scheme Linkage • Public Relations Engagement • Portal Linkages with the existing schemes – ZED, TReDS, CGTMSE etc. • Training and awareness materials • Dashboard for Learning Management System • Maintenance charges	15
3	Proposed Manpower at HQ: • System manager @ INR 1,50,000 per month – INR 90 lakh • Assistant system manager @ INR 75,000 per month – INR 45 lakh • MIS expert @ INR 1,50,000 per month – INR 90 lakh • Data scientist @ INR 75,000 per month – INR 45 lakh • Hardware and network engineer @ INR 50,000 per month – INR 30 lakh	3.48*
	Total Tentative Cost of the Project	**48.48 Cr**

*Assuming yearly increment of 7.5% considered in the salaries for the proposed manpower.

State Government Contribution: Physical Infrastructure, expenditure for furniture and setup of the office would be provided by the State.

Plan for Strengthening M&E Framework pertaining to the project/scheme.

To strengthen the Monitoring and Evaluation (M&E) framework pertaining to the project, the following plan can be implemented:

- **MSME Digital Portal:** The Portal shall comprise of a dashboard for all the projects rolled out under RAMP. The portal shall help in monitoring progress across each project, number of target beneficiaries reached, phase-wise initiation of each project etc. Moreover, the project shall have training and learning materials which the MSME units in the state can access for their knowledge enhancement and awareness.
- **Develop a Monitoring and Evaluation Plan:** A comprehensive M&E plan shall be created that outlines the key activities, responsibilities, and timelines for monitoring and evaluating the project. This plan should include details on data collection methods, data sources, frequency of data collection, and tools for data analysis. The GM DICs of the respective districts shall spearhead this M&E plan.
- **Regular Data Collection and Reporting:** Implement regular data collection activities as per the defined timelines. Monitor project progress against the established indicators and report on key findings and outcomes. Generate periodic reports that provide insights into project performance, challenges, and successes. These periodic reports can be generated through the MSME Digital Portal.
- **Feedback Mechanisms:** Establish mechanisms for collecting feedback from project beneficiaries, stakeholders, and partners. This can include feedback surveys, focus groups, or regular meetings to gather input on the project's performance and identification of areas for improvement.
- **Pre-Requisites from the Department:**
  The department shall share all available information about each MSME participating in the campaign for cross-verification purposes.

  MSME information and the questionnaire shall be developed in consultation with the department before the project starts for Integration of data with the portal.

6.2. Development of a MSME wing at the Department of Industries and Commerce, Punjab

Project Summary:
Through deliberations and discussions with the Department of Industries and Commerce, Punjab and the DIC offices across the state, it was envisaged that there is a need to establish a dedicated MSME wing at the headquarters. This MSME Wing shall have subject matter experts and sectoral experts for overall sector development and success of RAMP interventions in the state.

Existing Competencies for the specific theme
Punjab, being a prominent state in India has close to around 6 lakhs+ registered MSMEs, spread across sectors/clusters. The Department of Industries and Commerce, Punjab plays a pivotal role in providing support to the MSMEs in the state by addressing their needs and asks, at both headquarters and district level. This could be catered to by setting up multiple divisions across the MSME wing which shall provide focused support, specific to the needs of the MSMEs in Punjab. Moreover, sectoral experts shall be recruited to support the development of the sector.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives
The proposed project aligns with **DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes.** The project aims to build the capacities of the MSMEs through the involvement of professionals who can further help the units in widening their professional horizons, identify the problem areas of operations and receive adequate handholding support to grow.

Strategy for project implementation/scheme implementation with pre-defined milestone
a. Understanding the problem statement-
The MSMEs during the primary survey, focused group discussions and one-to-one meetings with Industrialists in the state of Punjab for SIP preparation, highlighted the need for business and technical assistance, especially with respect to champion schemes – obtaining loans, avail the benefits of schemes like ZED, LEAN etc., handholding support of scheme awareness and other multitude areas. Close to 5% MSME units were aware of CGTMSE scheme of the government, and around 35% were not aware of any of the existing central/state government schemes. The women MSMEs highlighted the need for expansion but the biggest deterrent for them posed to be the lack of awareness and know-how of how to go about the daily operations. Hence, it was envisioned that there is a need to develop a dedicated **MSME Wing** at the Department of Industries and Commerce, Punjab which shall cater to specific demands of the MSMEs in the state by developing multiple subdivisions in the proposed wing and recruit sectoral experts for key focus areas identified in RAMP. Development of MSME wing is absolutely essential as not only the wing will assist MSMEs in availing benefits under the champion schemes but will also act as a facilitator in training of MSMEs in management skills.

b. Proposed project design, feasibility, and viability Feasibility
Given the vast presence of MSMEs spread across sectors and districts in the state, the MSME wing shall cater to the needs of the MSMEs. A designed approach shall be undertaken at both the headquarters and districts to provide necessary support to the units.

Viability

The proposed intervention is viable for the state of Punjab as dedicated information and support wings, with experienced professionals shall help in the overall development of the MSME sector in the state. It could lead to an increase in export promotion, investor facilitation, devising progressive policies for the sector etc.

Project Design

The proposed project intervention envisages a **MSME Wing** at the headquarters in Department of Industries and Commerce, Punjab with a team of **5 dedicated professionals** and **24 sectoral experts** (2 sectoral experts identified for 12 key sectors Machine/ Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture Implements, Pharmaceuticals, Engineering goods, Auto and auto components, ESDM (emerging sector) and a potential / sunrise sector for the State of Punjab and **one nodal officer** at the head office. As per the findings of the primary survey, the aforementioned sectors were identified as thrust sectors, ESDM sector was identified as an emerging sector, and one potential sector will be identified in the due course of time by the State. The sectoral experts shall be deployed for each of the above-mentioned sectors and comprise 1 retired official from government/ PSUs/ private company etc. and 1 expert with minimum of 7 years of experience in the respective sectors.

Additionally, for DPR preparation, facilitation and access to finance etc. there will be a total of **33 resource persons** with a background of finance/ retired bankers etc. deployed across 23 districts, i.e. **2 resources each in 10 major districts (Amritsar, Ludhiana, Jalandhar, Patiala, Hoshiarpur, Mohali, Fatehgarh Sahib, Bathinda, Ferozepur, Kapurthala) and 1 each in the remaining 13 districts.**

The detailed scope of work of the resources is mentioned in the approach and methodology section.

c. Approach and Methodology for execution/implementation-
The **MSME wing at the Department of Industries and Commerce, Punjab** shall encompass the following divisions –

1. Cluster Development:

The State will follow a cluster approach for development of MSME Sector. The State will focus on optimal utilization of Central Government schemes for developing and upgrading various MSME clusters.

Common facilities will be set up in partnership with SPV's of respective clusters. Apart from the Schemes of Central Government for cluster development, the State would also formulate its own scheme for cluster development based on the felt needs of the State and gaps in the Central Scheme.

The State would prioritize clusters for phase wise development. Cluster Division will be instrumental in promoting and developing industrial and artisan clusters across state.

Cluster Division will focus on below areas for the development of MSME sector in the state.

- Setting up of Technology Centres: Cluster division will set up one centre for each major industrial cluster. These centres will be linked with prominent technical and research Institute to provide mentoring support.
- Setting up of Common Facility Centres: Cluster division will aim to set up one Common Facility Centre (CFC) in each major industrial cluster. CFCs shall have testing labs, marketing centers and other supportive capacity as per the needs of the concerned cluster. Government Schemes such as MSEFDP, SFURTI, Plastic Park will be leveraged for setting up of CFCs.
- Upgradation of QMCs and IDCs: The land of the existing Quality Marking Centres (QMC's) and IDCs as technology centres and common facility shall be utilized effectively for supporting the MSME sector.
- Adoption of Central Schemes: The Cluster division would facilitate adoption of technology upgradation and modernization schemes for MSMEs such as Credit Linked Capital Subsidy Scheme (CLCSS), Technology and Quality Upgradation Scheme (TEQUP), Lean Manufacturing, Quality Management Standards and Quality Technology Tools (QMS & QTT) and ZED (Zero Effect Zero Defect). The State would also make its own scheme to promote these concepts.

- Water, Energy, steam, Environment and Safety Audit: The division will incentivize audit of water, energy, and safety to promote technology adoption by MSME units.
- Access to Markets for MSMEs: Cluster Division will facilitate market access to MSMEs in both digital and physical marketplaces. Artisan and handicraft-based products will be promoted through E bazar and Haat bazars.
- Access to Infrastructure for MSMEs: The division will provide developed sheds, flatted factories and plug and play infrastructure for MSMEs across the districts.
- MSE facilitation councils at district level: A panel of arbitrators shall be appointed to expedite the disposal of cases.

2. Startup and Standup India/ Self Employment:

The division will facilitate networking between entrepreneurs and entrepreneurship support organizations by bringing entrepreneurs together in an environment that catalyses learning. It will focus on Building a Strong Eco-system for Startups and self-employment. Division will further strengthen the startup ecosystem by nurturing and funding Incubation centres/ Accelerators etc in the state. Sector Specific Incubators will be setup with the support of research and technical Institutions. Creation of common infrastructure and co-working spaces. Special Focus on Women Entrepreneurship. Special Focus on SC/other gender/differentially abled Entrepreneurship.

3. Access to Finance:

Inadequate access to finance remains a major obstacle for many aspiring entrepreneurs. This division would help entrepreneurs of all types and sizes requiring a variety of financial services, including facilities for making deposits and payments as well as accessing credit, equity and guarantees. This division would also support Revival and Rehabilitation of Sick MSME units also.

4. Infrastructure/ Land Bank:

The division would help identify and transfer various vacant lands and unutilized government lands for being developed as Industrial Parks. In addition, the PSIEC will also keep a ready shelf of land bank, earmarked after their due feasibility is established, which can be offered to the industries. The cell objective will be to identify and frame appropriate land pooling details for acquisition of land for Industrial parks and MSMEs.

5. Grievance Redressal:

The Grievances Cell for Industry will be set up with the primary objective of providing a responsive and efficient mechanism for industries to voice their grievances and seek timely redressal. The aim of the division will be to foster a business-friendly environment by ensuring that concerns raised by industries are heard, understood, and appropriately addressed. It will also be instrumental in resolving interdepartmental issues.

6. Publicity & social media:

Social Media Cell will be established with the objective of providing MSMEs with the necessary tools and support to harness the power of digital marketing and social media to promote their businesses. social media experts will assist MSMEs in creating and managing engaging social media profiles across popular platforms.

7. Investor Facilitation:

Investor facilitation cell will focus on attracting foreign investments in various manufacturing and service industry sectors and to enable an investor friendly experience for the foreign investors. An international desk will be setup at major DICs to focus countries to facilitate prospective global investors. The cell will be

supported by Vyapar Sahayak (business facilitators).

8. Policy Formulation:

This division will focus on creating awareness about the policy amongst the stakeholders and prepare a detailed policy implementation plan with clearly defined timelines and responsibilities.

9. Regulatory Compliance:

The division will focus on providing Regulatory Clearances to the MSMEs.

10. Raw Material Assessment:

This division would assess the availability of scarce raw material such as coal etc. and the requirements of the MSMEs.

Human Resource Requirement for MSME Wing:

Cluster Development Experts	2 professionals
Graphic Designer	1 professional
Communication, PR and social media expert	1 professional
Legal, Finance & Banking expert	1 professional
DPR preparation and facilitators	33 professionals
Sectoral experts	24 professionals
Nodal officer of sectoral experts	1 professional

MSME Annual Conclave: One of its kind annual MSME conclave will be organized in the state which shall have participation from across the globe. Participants will range from industry stalwarts, MSMEs, sector experts, industry associations, government dignitaries and officials. This conclave will also give a platform to MSMEs from across the country to exhibit and sell their products and services. This would give them a platform for recognition across the globe. This conclave will provide a platform for knowledge sharing, cross learning, best practices etc.

Development of Digital Library: The MSME wing shall develop a comprehensive digital library which will include all the curriculum/course developed across various initiatives and program proposed as RAMP interventions along with excerpts of all the policies and schemes of central and state government, and various other initiatives for development of MSMEs. Bilingual content (English & Punjabi) will be prepared and developed and made available for public use in the digital library.

Scope of work of the individuals proposed in the MSME wing:

1) **Cluster Development Experts for MSME**
- Identify and map important key clusters across the districts.
- Undertake as-is analysis of cluster requirements, needs and existing gaps.
- Develop cluster development interventions in consonance with the unique requirements.
- Support in tender development, regulatory facilitation of MSMEs and review etc.
- Build the capacity of MSEs in the respective clusters through the formation of self-help groups, consortia, upgradation of associations, etc.

2) **Communication, PR and social media expert**

- Provide digital marketing and social media support to the department.
- Lead all official communications, PR across offline and online media.
- Develop periodic knowledge products specific for the MSME sector and ensure their media circulation.

3) Graphic Designer
- Creation of media products and collaterals for the department – magazines, posters, flyouts, social media ports for publishing etc.
- Report branding and designing, logo designing, creating illustrations.

4) Legal, Finance and Banking expert
- Assistance in Tender preparation and all the legal undertakings
- Providing all necessary handholding legal support, in terms of legal compliance to the department
- Preparation of plans for all credit schemes in the department and inter-departmental coordination for the same
- Undertake all financial budgeting and across all budgets for the department.

5) DPR preparation and facilitators
- End to end preparation of DPR
- Handholding support for access to finance across various central and state schemes
- Coordination with various departments

6) Sectoral experts

- Guidance and support in proposed RAMP interventions
- Responsible for sectoral development under RAMP Programme
- Provide their valuable inputs for development of DPRs.
- Facilitate development of proposals to attract funding for their respective sectors.
- Establish industry and international connects for sectoral growth.

7) Nodal Officer for Sectoral Experts
- Shall be responsible for overall sectoral development in the state of Punjab. Shall monitor the performance across each sector and take periodic reviews on the same.

The sectoral experts shall be deployed for each of the following mentioned sectors: -

S. No	Sector
1	Machine/Power Tool
2	Hand Tools
3	Sports Goods
4	Food Processing
5	Bicycle
6	Textile
7	Agriculture Implements

8	Pharma
9	Engineering Goods
10	Auto & Auto Components
11	ESDM (Emerging sector)
12	A potential / sunrise sector for the State of Punjab

d. Timelines for achievement of project deliverables and verification protocols

Given below is the tentative broad timeline for the project, for the training of professionals.

Components	Q1	Q2	Q3	Q4	Y2	Y3	Y4	Y5
Identification of professionals	■							
Setting up of divisions in the MSME wing		■						
Beginning of operations for MSME wing			■	■	■	■	■	■
MSME Annual Conclave				■	■	■	■	■

e. Estimated impact of the project project/scheme/proposal-

The MSME wing over the period of 5 years will have a wider impact on all **6 lakh+** registered MSMEs of Punjab. Moreso, the MSMEs in need of business and technical handholding shall immensely benefit from this project. There are some keyways in which the project will contribute to benefit of the MSMEs: -

Enhanced MSME Competitiveness: The project will result in improved competitiveness of MSMEs in Punjab by providing them access to skilled professionals who can address their specific challenges and help them adopt best practices.

- **Increased Productivity and Efficiency:** MSMEs receiving support are likely to witness enhanced productivity and efficiency in their operations, leading to cost savings and better resource utilization.
- **Employment Generation:** As MSMEs grow and expand with the support of the professionals, they are likely to create more job opportunities, contributing to employment generation in Punjab.
- **Economic Growth:** Strengthening the MSME sector can have a positive impact on the overall economic growth of Punjab, as these businesses play a significant role in the state's economy.
- **Innovation and Technology Adoption:** The project can encourage MSMEs to embrace innovation and modern technologies, fostering overall industrial development and digital transformation.
- **Sustainable Development:** By supporting the growth of MSMEs, the project can contribute to the long-term sustainability and development of the state's economy.
- **Skills Development:** The training of professionals itself contributes to the development of skilled

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manpower, which can have a broader impact beyond the project's scope.

f.   Project costing and contribution of state government towards it

The costing will include the following parameters:

Component	Per Unit Cost (INR)	Total Number	Tentative Cost for 5 years (INR Cr.)
MSME Wing • Cluster Development Experts (HQ)	1,00,000	2	1.2
• Communication, PR and social media expert (HQ)	50,000	1	0.30
• Graphic Designer (HQ)	50,000	1	0.30
• Legal, Finance and Banking Expert (HQ)	50,000	1	0.30
• Sectoral Experts (24) + 1 nodal head (HQ)	1,00,000	25	15
• DPR preparation and facilitators (across all 23 districts)	50,000	33	9.9
MSME Annual Conclave	1,00,00,000	5	5
MSME Wing Setup Cost o VC setup o Chairs o Desks o Computers & Printers o Stationery o LAN Connection	2,00,00,000		2
Digital Library for all relevant content in Punjabi and English	2,00,000	-	0.10
	Total = INR 34.1 Cr		

State Government Contribution: Physical infrastructure provided in terms of office space and all the operational expenditure would be provided by the State.

g.   Plan for strengthening M&E framework pertaining to the project/scheme/proposal.

1) A **division-wise and district-wise MIS system** shall be developed that shall track progress/ enrolment/ increase in beneficiary base/ MSMEs facilitated during the project duration for the below mentioned divisions set up in the MSME wing.

a) Cluster Development
b) Startup and Standup India/ Self Employment
c) Access to Finance
d) Infrastructure/ Land Bank
e) Grievance Redressal
f) Publicity & social media
g) Investor Facilitation
h) Policy Formulation
i) Regulatory Compliance
j) Raw Material Assessment
k) Sectoral Development

2) Overall project intervention shall be tracked through the MSME Digital Portal

3) Progress of the project would be monitored monthly, quarterly and bi-annually in the review meetings conducted at appropriate levels.

6.3. Set up an Export Promotion and Facilitation Cell within Industries and Commerce Department

Project Summary:

To help Punjab achieve its goal of doubling its exports as envisaged in the Punjab Industrial and Business Development Policy 2022 in the next 5 years, a project is proposed to Set up an Export Promotion and Facilitation Cell, for implementation of the State Export Action Plan 2021-26 and various other initiatives as proposed under the project.

Punjab ranks 10th in the Export Preparedness Index (EPI) ranking 2022[55] published by NITI Aayog and basis the findings of the report, the state underperforms on indicators such as trade support, infrastructure, finance, and export performance. Observations from the primary survey conducted also highlight that about 55% of the MSMEs have limited understanding of export procedures and compliances, and 24% have limited knowledge about the products with export potential and international markets.

Findings of primary survey also shows that more than 23% of the MSMEs have plans to venture into exports in the next 5 years, and sectors such as agriculture implements, auto components, electrical goods, hand tools and textiles have shown willingness to export and require export facilitation and handholding support.

To address the challenges identified and support MSMEs in export, Export Promotion and Facilitation Cell would be constituted and the State Export Action Plan, a guidebook prepared by Government of India and Government of Punjab jointly, which lays down the plan for doubling Punjab's exports by providing actionable insights on focus sectors, products and international markets, and recommendations for achieving the goal INR 1.20 lakh crores worth of exports, would be implemented.

Existing Competencies for the specific theme: human resources, physical infrastructure, content

Punjab has strong institutional setup for export promotion such as policy support, district action plans and state & district level committees for promotion of exports. Out of the 10 landlocked states in India as categorized by NITI Aayog, Punjab ranks 4th in the Export Preparedness Index 2022. With single window clearances and obtaining 'Top Achievers' category in Ease of Doing Business rankings, Punjab has demonstrated the presence of required ecosystem for setting up of businesses. A very positive indicator i.e., increase of 1,29356 number of exporters from the state is a clear sign that the state is moving in the right direction to promote exports. With development of state level action plan for promotion of exports, Punjab has started taking the goal of doubling its exports in 5 years' time very seriously. The industrial policy also has made a provision for explore setting up of Export Processing Zones and Special Economic Zones to attract foreign and domestic investments. By providing capital subsidy and freight assistance, the state has incorporated a provision for supporting exporters and addresses their pain areas.

Top 10 sectors i.e., Agri (Rice), Iron & Steel, Machinery, Auto components, Textiles, Pharmaceutical, Hand tools, Bicycle, Paper and Sports, from Punjab contribute to about 75% of total exports amounting to INR 40,131 Cr (FY 2022-23). The top countries for export from Punjab are USA, UAE, Bangladesh, Saudi Arab, UK, Germany, Brazil, Egypt and Canada. The focus products identified with highest potential of doubling the exports as per the State Export Action plan are Rice, Cotton and Cotton Yarn, Hosiery, Hand Tools and Bicycle.

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[55] NITI Aayog, Export Preparedness Index 2022 Report
[56] Export Preparedness Index 2022

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

The project – 'Set up an Export Promotion and Facilitation Cell for Punjab Government' **aligns with DLI 3 - Enhancing the effectiveness of Firm Capabilities Schemes**, as it covers aspects of increasing awareness about exports, capacity building of exporters and department officials, enhance marketing and branding of products, support in creating market linkages, increasing number of exporters from the State and doubling exports in next 5 years from the state of Punjab.

Strategy for project implementation/scheme implementation with pre-defined milestone

Understanding the problem statement

Findings of the primary survey conducted show that more that 55% MSMEs lack awareness about procedures and compliances required for exports followed by 38% MSMEs which lack understanding of the global business landscape and awareness about technological trends in foreign markets. 24% of MSMEs reported that they have limited knowledge about the products to be exported and international markets, and 15% have limited information about the competition in the international market and the product acceptability in the international market.

As per the primary survey conducted, sectors such as Agriculture Implements, Auto Components, Electrical Goods, Hand Tools and Textiles mentioned about requirement of training and handholding support to exporters. Knowledge about subsidies, export potential of products, branding and packaging, quality standards and creation of market linkages was mentioned as common challenge faced by MSMEs. Suggestion on development of a packaging cluster to support exported was also given during the survey.

Other challenges and areas of improvement for exports in Punjab reported in the EPI Report 2022 are mentioned below:

- Under the Policy sub-pillar, Punjab stood at rank 21. The reason for scoring low in the sub-pillar was reported as lack of export facilitation measures taken by the state. Implementation of the export action plans, and usage of the state institutional machinery is a challenge, due to lack of subject knowledge, inadequate training and lack of monitoring mechanism.
- In Export Ecosystem sub-pillar, the state ranks 13. Lack of awareness about export procedures, capacity building of exporters, quality certifications and absence of platforms for creating market linkages make for reasons for scoring low.
- In the sub-pillar Export Performance, Punjab ranks 8. For improving the rank under the sub-pillar, export concentration needs to be improved, which means, identifying more products with export potential and promotion of exports for the identified products is required.

Proposed project design, concept

The proposed project – 'Set up an Export Promotion and Facilitation Cell for Punjab Government' requires a team of experts to be onboarded which will implement State Export Action Plan which would include implementation of schemes such as:

1. Export Marketing and Branding: The objective of this scheme is to promote products and service produced in Punjab known for their unique manufacturing capacity and unique quality, as a brand in the international market.

2. **Changing Administrative Structure Within State**: Establishing Directorate of Exports or Export Promotion

and Facilitation Cell which would synchronize the state and center policy of exports and would also act as nodal coordination point for exporters.

3. **Exports from Punjab Scheme:** Formulation of a scheme to compensate high transport costs from Punjab to seaports of India by virtue of being a landlocked state and offset other disadvantages to promote exports from Punjab.

4. **Export Promotion and State Duties & Taxes Remission:** Objective of the scheme is to remit taxes and duties paid to the state which are not remitted in any other scheme i.e., remission of stamp duty paid at the time of sale deed registration or lease deed registration.

Other initiatives to promote exports by the agency will include conducting stakeholder consultations to understand challenges of the exporters, resolve issues and provide holding support to MSMEs. The implementation agency will conduct capacity building exercises for both exporters and department officials. It will partner with and take support of various agencies such as export promotion councils, FIEO, DGFT, QCI among many to facilitate and improve exports from the state. The agency will facilitate periodic meetings at district-level and state-level for continuous review and monitoring.

Project feasibility:

The major challenge faced by an MSME is lack awareness about procedures and compliances required for exports however considering their capabilities, quality of products and the benefits of exporting, 23% of the MSMEs responded in the primary survey conducted that they have plans to go global in the next 5 years. MSMEs are looking for opportunities and they look forward to getting integrated in the international value chain to reap the multi-fold benefits which they are unable to achieve in the domestic market. By addressing the challenges related to awareness and handholding support, the project would be beneficial in providing for MSMEs to redefine their growth trajectory.

Project viability:

The proposed intervention is viable for the MSMEs in the state as the current goal of doubling its exports would require the State to focus on certain sectors and top importing countries. However, in the long run, because of the capacity building, international exposure, quality production of the level of global standards would lead to exploring potential of new products and exploring new markets. Diversification opportunities and achievable global expansion of exporters would create a spillover effect on the performance of aspiring MSMEs.

Approach and Methodology for execution/implementation

The project will be based on a hub and spoke model wherein a team of experts would be spread across the state. A 5-member team with expertise in export facilitation and process for handholding the exporters is proposed, of which the one member will be based at the head office and the remaining members would be based at district industries offices of the four regions of Punjab (Jalandhar, Ludhiana, Bathinda and Ferozepur) along with district level officials, provide on ground support to the MSMEs. Additional two experts for clearance of incentives under exports, custom clearance and market intelligence, each would be onboarded. From the department, Joint Director (Industries) would be appointed to head the export cell at the head office along with 10 officials who would be given separate subjects related to exports and will also handle queries related to sector specific support required by the exporters from the export cell. At district level, officials under GM DICs in addition to the team of experts at the districts will also support the exporters.

The first phase of activities to be conducted by the team will include awareness generation about exports and capacity building of both department officials and exporters. Capacity building workshops will be conducted region-wise in association with relevant Export Promotion Councils and DGFT for spreading the awareness and gearing up the entrepreneurs and existing businesses to take up the export activities.

The second phase of activities would cover aspects of quality certification and awareness about quality standards for the relevant sectors. Workshops in association with QCI and NABL will be conducted district-wise to make exporters more confident about their product quality. Separate workshops for support in marketing and branding will also be conducted in association with FIEO.

The third phase of activities will organize buyer-seller and reverse buyer-seller meets focussing on vendor development. Reverse buyer seller meets would be organized focussing on inviting prominent importers from abroad to increase potential of exports from the state. Exposure visits to foreign countries which would be covered in other proposed project of capacity building of MSMEs under RAMP and participation in export events both in the state and abroad to be facilitated. New platforms to improve market access such as e-commerce platforms to be leveraged. Workshops in coordination with FIEO and DGFT to be organized on how to leverage FTAs and incentives in the Foreign Trade Policy (FTP) 2023. The export facilitation cell will work towards encouraging production of products under HS codes defined in FTP in Punjab.

The team will provide continuous handholding support to exporters, facilitate export requirements and prepare exporters directory. It will provide support in publishing Export Guidebook of the State, FAQs, provide content for export portal for information dissemination, focus on identifying potential of ODOP and GI products, identify diversification opportunities, prepare product profile and district profiles and implement district and state export action plans. Team will also conduct stakeholder consultations and extend support for formulating Export Policy of the State.

Dedicated experts will support MSMEs in the clearance of incentives and refund under exports, custom clearance and market intelligence for identifying opportunities in the new markets.

Sector and product-wise strategy to increase exports would be developed for products with high export potential. For example, Punjab has an established base of Agri Implements, i.e., agricultural instruments which has a large and stable demand in the world market. India, however, does not rank in the top 10 exporters and can definitely try to climb up the ladder by utilizing the potential of industries at Moga and Mansa in Punjab and focus on large scale production and reduce expenses on transportation. Despite performing well in South Asia region, diversification opportunities are required to be explored to increase the export of agriculture machinery in Europe and African countries. Exposure visits to countries such as Germany, Italy, USA and other top exporters of the Agri Implements would help MSMEs in Punjab improve their quality of products and make their products more acceptable in the European countries.

Proposed structure of the export cell and scope of work of the experts onboarded:

S.no	Expert	No. of resource	Proposed Location	Scope of work
1	Export facilitation	1	Chandigarh (Head quarter)	MSME handholding with export procedure, prepare exporters directory, export guidebook, content for exports website, coordination with Central Government bodies for coordination such as DGFT, export

				promotion councils, foreign embassy, FIEO, QCI, NABL etc., stakeholder consultations for policy development, sector-wise information dissemination, prepare product profile and district profiles, implement district and state export action plans
		4	Jalandhar, Ludhiana, Bathinda, Ferozepur	Support in MSME handholding, export procedure, exporters directory, export guidebook, content for exports website, stakeholder consultations for policy development, information dissemination, prepare product profile and district profiles, implement district and state export action plans
3	Refund and claims specialist	2	Ludhiana, Chandigarh	Facilitate filing of refund claims of goods and services exported
4	Customs clearance specialist	2	Ludhiana, Chandigarh/Mohali	Support in documentation, checklist for filing in customs, knowledge about shipments, shipping lines, CHA/transporter, debit note, issuance of delivery order, handover of shipment etc.
5	Market intelligence specialist	2	Chandigarh (Head quarter)	Identify potential of ODOP and GI products, identify diversification opportunities, export trends, destination countries, sector-specific insights on focus sectors and information dissemination

Focus sectors identified for export promotion activities which would help augment exports from the state and contribute and in achieving the goal of doubling exports in the next 5 years are: Machine/Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture Implements, Pharmaceuticals, Engineering Goods, Auto & Auto Components and ESDM (emerging sector) and one potential / sunrise sector for the State of Punjab).

a) Timelines for achievement of project deliverables and verification protocols

Activity	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
Awareness generation	■				■				■				■				■			

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Activity	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
Preparation of export guidebook and FAQs and yearly update	■				■				■				■				■			
Capacity building workshops for department officials		■		■		■		■		■		■		■		■		■		■
Sector specific Capacity building workshops for exporters in association with EPCs, FIEO, QCI, NABL, DGFT		■		■		■		■		■		■		■		■		■		■
Organize buyer and seller meet			■				■				■				■				■	
Develop export portal of the State and update content			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Prepare product, sector and district export profiles and update yearly			■				■				■				■				■	
Organize Export Award event				■				■				■				■				■
Conduct				■	■	■														

Activity	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
stakeholder consultations and formulate on Export Policy of the State				✓	✓	✓														
Participate and submit evidence for Export Preparedness Index ranking			✓	✓			✓	✓			✓	✓			✓	✓			✓	
Exporter facilitation and handholding	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

b) Estimated impact of the project project/scheme/proposal

The project is estimated to build capacities of all department officials and increase number of exporters by **5,000 over a period of 5 years**. The project will build capacities and support 5,000 units in exporting their products to achieve **target of INR 1.20 Lakh Cr** at the end of 5 years. Year-wise break is given below:

	Y1	Y2	Y3	Y4	Y5	Total
Medium, Small and Micro units	--	1250	1250	1250	1250	5,000

Apart from doubling exports from the focus sectors identified in the State Export Action Plan, new sectors would also be identified and developed having the export potential. Schemes such as One District One Product and Developing Districts as Export Hub would be leveraged for doubling the exports from Punjab in the next 5 years. By addressing the challenges faced by MSMEs and by successful implementation of interventions proposed, Punjab would climb up the Export Preparedness Index ranking published by NITI Aayog, Government of India.

Participating in the global value chain would lead to increase in sales and profits and give an opportunity to capture significant global market share. MSMEs which export can spread their business risk by diversifying into multiple markets and gain new knowledge and experience that allow the discovery of new technologies, marketing practices and insights into foreign competitors. This can also help MSME reduce its per-unit costs of production by expanding operations to meet increased demand in both domestic and international market.

c) Project costing and contribution of state government towards it
Cost breakup of all the activities to be implemented under the project is provided below:

Project Budget								
S.no	Components	Profile / Subject	Count	Cost per unit (INR Lakh)	Unit	No. of years	Sub-Total (INR Cr)	Total cost (INR Cr)
	Team of experts	Export facilitation	1	18 (@1.5 lakh per month)	Resource Per year	5	0.90	6
1			4	12 (@1 Lakh per month)	Resource Per year	5	2.40	
		Refund and claims specialist	2	9 (@75,000 per month)	Resource Per year	5	0.90	
		Customs clearance specialist	2	9 (@75,000 per month)	Resource Per year	5	0.90	
		Market intelligence specialist	2	9 (@75,000 per month)	Resource Per year	5	0.90	
2	Training and workshops	Awareness Generation	1	1	Per training / per year. Workshop with 100 MSMEs & department officers	5	1.05	1.05
		Export Procedure and Compliances	2					
		Incentives, Taxes Customs	2					
		Marketing and Branding	2					
		Quality, Testing, Certifications	2					
		Sector-specific workshops	12					
3	Annual (buyer-seller /reverse buyer seller) meets and export awards		5	100	Per event	5	5	5
Total Cost								12.05 Cr

Total cost for project implementation amounts to **INR 12.05 Cr** which will be borne by Government of India.

<u>State Government contribution:</u>

For costs incurred over and above the estimated budget, State Government can contribute as per the

provisions under the Punjab Industrial and Business Development Policy 2022 given below:

Sno.	Policy	Nature of incentive	Extent of incentive
1.	Punjab Industrial and Business Development Policy 2022	Marketing Support	Assistance to MSME for showcasing their products at local, national and international event: (a). @50% of total rent limiting to ₹5 lakhs for participation in International Trade Fairs abroad (b). @25% of total rent limiting to ₹3 lakhs for Domestic Trade Fairs and Exhibitions. (c). Nil for Pavilion at Progressive Punjab Events and Conferences
2.	Punjab Industrial and Business Development Policy 2022	Freight Assistance to Exporting Unit	1% of FOB value or actual freight paid from the place of Manufacture to the place of shipment, whichever is less subject to maximum of Rs 20 Lac per annum for 5 years within the validity period of policy
3.	Punjab Industrial and Business Development Policy 2022	Vendor Development Program	Assistance of INR 5 Cr to MSME Punjab for assisting the industry in organizing Vendor Development Programmes, Buyer – Seller meets, Reverse Buyer-Seller meets

d) Plan for strengthening M&E framework pertaining to the project/scheme/proposal.

To monitor the performance of the team of experts and measure impact of the project, following mechanism is proposed:

1. Submission of monthly progress reports basis the performance parameters or KPIs which could be defined at the later stage by the department such as number of exporters registered, number of MSME query resolved, number of claims processed, number of trainings conducted per MSME etc.
2. Progress tracking using MSME digital portal to be developed under the RAMP programme.
3. Progress of the project would be monitored monthly, quarterly and bi-annually in the review meetings conducted at appropriate levels.

6.4. Capacity Building of Select MSME units in Focus Sectors with an objective to enable scaling up of their Business.

Project Summary:

As per the findings from the primary survey and consultations done with Punjab's MSME's for SIP preparation, it was inferred that there is a massive requirement for capacity building of the MSME units focussing on entrepreneurship development, increase access to market, developing business opportunities for the local products, business plans to promote growth, communication skills, and collaborate with the industry experts. The proposed project's objectives include fostering the development of entrepreneurial skills, developing a sustainable entrepreneurial environment, and boosting the productivity and global competitiveness of MSMEs in Punjab, India. The suggested initiatives in the proposed intervention shall attempt to use components of capacity building to empower MSMEs and propel economic growth in Punjab with active engagement from industry champions consisting of large and MSME units, government officials, academic institutions, bankers etc. Building the capacities of MSMEs shall bolster the growth of the sector in the state and make the units self-sustainable in terms of decision making and promoting their businesses. The main objectives of the proposed project are: -

- Promote entrepreneurship and enhance the business acumen of the entrepreneurs.
- Promote collaborative linkages between large and small enterprises.
- Developing an entrepreneurship ecosystem development that is sustainable.
- Increase market access of the MSME units.
- Foster partnerships of the MSME units with domestic and international organizations.

Existing Competencies for the specific theme

Punjab has a strong base of MSMEs in the state, with close to 6 lakh+ registered MSMEs on the Udyam Portal.

Various initiatives have been undertaken by Punjab Government which are enumerated below:

- Financial Support: The state government of Punjab has launched schemes to provide financial assistance and incentives to MSMEs, particularly Punjab Industrial and Business Development Policy 2022. The proposed schemes aim to enhance access to credit, promote innovation, and support technology adoption.
- Skill Development: Punjab has been working on improving the skill set of the workforce in the MSME sector. This includes training programs, workshops, and collaborations with technical institutions to upgrade the skills of the MSME workforce.
- Incubation Centres: The state has established business incubation centres to nurture startups and innovative enterprises. These centres provide mentoring, infrastructure, and access to networks to foster the growth of MSMEs.
- Export Promotion: Punjab has been focusing on promoting exports. Support is provided to MSMEs to participate in trade exhibitions, explore international markets, and benefit from government export promotion schemes.
- Cluster Development: The state has identified specific clusters of MSMEs (such as textiles, manufacturing, food processing) and has been working on their holistic development. This includes infrastructure improvement, technology upgradation, and cluster-specific interventions.
- Digital Transformation: Encouraging MSMEs to adopt digital technologies is crucial in the modern business landscape. Punjab has been promoting digital literacy and helping MSMEs leverage digital tools for better efficiency and competitiveness.

Hence, a robust capacity building programme targeted at building and developing the MSMEs in the state with

a multi-faceted approach becomes imperative. Our inferences of the primary survey and extensive stakeholder consultations revealed that there is a pressing need to enhance the competencies of the MSME sector to improve their market competitiveness and facilitate their growth. Many units during the primary survey highlighted the need for assistance in capacity building and handholding support for business growth.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

The proposed project can be aligned with **DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes**. The overall objective is to develop a robust capacity building programme which would equip the MSMEs with required, necessary skills in order to help them realize and avail benefits of the central and state government schemes.

Strategy for project implementation/scheme implementation with pre-defined milestone

a. Understanding the problem statement

The proposed project has been developed keeping in mind the asks of the MSME units in Punjab, inferred from the analysis of primary survey and detailed stakeholder consultations.

During the primary survey it was inferred that nearly 72% of the MSMEs lack availability of skilled labour in their units. Moreover, across units surveyed 57% units have expressed the need for capacity building workshops.

The districts during the consultations expressed the need to organize awareness sessions amongst the MSME units and introduce sector-specific programme to boost their knowledge on exports, finance, and other identified areas of assistance.

The problem areas targeted by this proposed intervention are as follows:

- **Market Access and Competition:** MSMEs in Punjab face challenges in accessing largermarkets and competing with larger enterprises. Limited marketing capabilities hinders their ability to compete effectively and expand their customer base.
- **Talent Shortage:** Finding and retaining a skilled workforce in the units is a significant problem faced by Punjab MSMEs. The high dropout rates of the labour and unavailability of skilled labour in the districts need to be addressed through this intervention.
- **Lack of Professionalism:** It is essential for MSME entrepreneurs to invest in their personal growth and business development, which shall be addressed through this intervention.
- **Inadequate Networking and Collaboration:** Limited networking opportunitiesand collaborations among MSMEs restrict their ability to share knowledge, experiences, and resources. Thus, developing strong networks and collaborations in Punjab can foster innovation, knowledge exchange, and market expansion.

Therefore, the proposed project on capacity building of MSMEs must be executed in Punjab in order to achieve the aims and objectives of RAMP. The proposed project shall focus on **12 key sectors of Punjab** i.e., Machine/Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture Implements, Pharmaceuticals, Engineering Goods, Auto & Auto Components and ESDM (emerging sector) and one potential / sunrise sector for the State of Punjab.

b. Proposed project design, concept, feasibility, viability

The proposed project intends to create a platform to scale up MSMEs with a focussed approach wherein 5 industry champions would be identified from each focus sector which will be associated and will work closely

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with the proposed MSME wing at the Industries and Commerce Department under the RAMP initiative. The industry champions would comprise large, medium, small, and micro units, and a unicorn company, all from different districts who will conceptualize the whole program, mentor the identified MSMEs, support in development of content and courses, governance, compliance, and implementation of the proposed program. The aim is to build capacities of 5000 MSMEs over a period of 5 years. Scale up around 1000 MSMEs in the first year (20% of 5000 MSMEs). Further provide sector specific trainings to 200 MSMEs in the second and third year (20% of 1000 MSMEs), up-scale 40 MSMEs to the advance level in the fourth and fifth year (20% of 200 MSMEs) and at the end of 5th year help build at least 1 unicorn company out of the 8-10 MSMEs (20% of 40 MSMEs).

The proposed intervention will focus on the following sectors:

Sl. No	Sector
1	Machine/Power Tool
2	Hand Tools
3	Sports Goods
4	Food Processing
5	Bicycle
6	Textile
7	Agriculture Implements
8	Pharma
9	Engineering Goods
10	Auto & Auto Components
11	ESDM (Emerging sector)
12	Potential / sunrise sector for the State of Punjab

Feasibility and Viability

Feasibility:

As per the findings of the primary survey, nearly 72% of the MSMEs have expressed concerns about lack of availability of skilled labour in their units and about 58% units stated the need for capacity building workshops to up-scale their businesses. Given the concerns raised from observations from our primary survey, it becomes imperative to address the needs of the MSMEs and design an intervention around the problem statement.

Viability:

The proposed intervention allows MSMEs to train, gain sectoral expertise, scale up, gain exposure and become equipped to implement their expansions plans. The aspiring MSMEs by witnessing the success of the proposed program and their peers would encourage them to enrol for such training and capacity building programs.

Approach and Methodology:

The industry champions who will be associated with this proposed RAMP intervention will help in identification of potential 5000 MSMEs each year across respective sectors and post initial assessment, only 1000 MSMEs (i.e., 20% of 5000 MSMEs) will go under training in the first year. The courses and the content would be designed under the guidance of industry champions for MSMEs to be abreast with latest development in their sector and guidance. The content created out of this proposed program would be bilingual i.e., in Punjabi and English which will be published and be publicly available for all MSMEs in the State. The content developed would also be integrated with the proposed digital library as proposed under the RAMP intervention.

The project shall target **5000 MSMEs across the identified focus 12 sectors in 5 years.** Bifurcation of number of units per sector is provided below:

Sl. No	Sector	Total No. of MSMEs
1	Machine/ Power Tools	400
2	Hand Tools	400
3	Sports Goods	400
4	Food Processing	400
5	Bicycle	400
6	Textile	400
7	Agriculture Implements	400
8	Pharma	420
9	Engineering Goods	420
10	Auto & Auto Components	420
11	ESDM (emerging sector)	420
12	Potential / sunrise sector for the State of Punjab	520
Total		**5000**
Total Women MSMEs to be targeted		**1500**

Year - wise target of MSMEs to undergo capacity building trainings.

Year-wise target	Total MSMEs	Total Women MSME
Year 1	1000	300
Year 2	1000	300
Year 3	1000	300
Year 4	1000	300
Year 5	1000	300
Total	**5000**	**1500**

For the execution of this project, 1000 MSMEs shall be trained in the first year of the program, summing up to 5000 MSMEs being trained over the period of 5 years.

1) **Identification of MSME units for the programme.** Industry champions and GM DICs will help in identification of 5000 MSMEs across their respective 12 key sectors of Punjab and shortlist the units for the programme. The location for the workshops will be identified by the department.
2) Organize an **assessment which would assess the existing entrepreneurial acumen** as this would help in identifying the level the MSME and the amount of capacity building would be required.
3) The first-year workshops would be conducted in a batch of 30 MSMEs to accommodate a total of approx. 90 MSMEs per sector. The list of tentative workshops is given below:
   a. **Subject 1 - Increase access to market for the MSMEs**.
   b. **Subject 2 - Developing business opportunities for the local products** produced in their district, with a focus on export promotion.
   c. **Subject 3 - Collaboration with industry associations, industrialists, industry players/professionals** for special training workshops
   d. **Subject 4 - Developing business plans to promote growth**, **financial modelling, make business development reports, leveraging social media, industrial security and safety, (Environmental, Social and Corporate governance) ESG.**
   e. **Subject 5 - Communication and Marketing.**

Post completion of workshops, an online assessment of the MSME units shall be conducted across all modules. It is only after they complete the assessment, they will be eligible to enrol for the second and third year of training program i.e., 20% of the top performing MSMEs (from the pool of 1000) i.e. 200.

The course content for the for the second and third year would include sector specific classroom trainings (sector knowledge, best practices, international case studies, export potential, technology and R&D, marketing and branding, packaging etc.) which will be both online and offline held on alternate weekends.

Post assessment of the third year, 20% of the top performing MSMEs (from the pool of 200) i.e., 40 would be inducted for scaling up at the advance level in the fourth and fifth year. The top performing MSMEs would undergo rigorous training along with exposure visits to both domestic and international destinations as per criteria which would be decided by the department and sector champions. Domestic and international visits would comprise sector specific clusters, academic and R&D institutions, top performing states/countries, exhibitions, conferences, events and seminars etc. An illustrative list of criteria is mentioned below though not restricted to increased turnover, increased efficiency, expansion plans, exports etc. The component of exposure visits will be a part of the proposed intervention – 'Organize exposure visits for MSME units in Punjab to boost MSME performance, increase production efficiency and promote outreach & awareness'.

An assessment would be conducted by mid of fifth year wherein a final group of 8-10 MSMEs (i.e., 20% of 40 MSMEs) would be selected for the training to reach the level of unicorn company in the last 6 months. At least one company out of the top performing MSMEs would be termed as the Unicorn of Punjab.

Every year, every batch shall undergo this training, till the end of 5 years.

Following shall be the criteria for assessments conducted -

- Increase in the entrepreneurs Revenue, Value added, Net value added.
- Increase in procurements.
- Better turnaround time for order completion
- Increase in exports through fostered partnerships.
- Record keeping and maintenance of balance sheets.
- Proportion of women entrepreneurs in the units if any increase has been witnessed.

- Employee training programme conducted in their respective units.
- Frequency/incident rates of occupational injuries
- Water recycling and reuse; Water use efficiency: Water stress
- Reduction of waste generation; Water reused, re-manufactured and recycle; Hazardous waste.
- Tracking number of employees and revenue every year for 5 years for the participants. Revenue numbers to be captured directly from ROC/GST filings.
- Frequent interactions with GoP officials to monitor qualitative and quantitative data of growth.

The following list of parameters is suggestive and may be added as per the requirement of the cohorts

An implementation agency shall be onboarded for this project who shall be responsible for conducting the workshops across the mentioned sectors. The agency may onboard 5 professionals indicatively as per the scope and requirement of the project.

Scope of work of the implementation agency to be onboarded.

- Support in identification of the MSMEs and induction of MSMEs in the program.
- Mobilization of the MSMEs
- Work in close collaboration with the industry champion to develop the content.
- Develop questionnaires for assessment and conduct assessments.
- Conducting workshops across all the 12 identified sectors over the period of 5 years
- Support in organizing quarterly meet of the industry Champions.
- To organize exposure visits for MSMEs in consultation with sector experts' industry champions and industry officials

A total of 60 industry champions (5 from each sector) would be associated with this proposed RAMP intervention from 12 identified focus sectors. The role of the industry champions is provided below:

- Support in identification of the 5000 MSMEs
- Provide mentorship to MSMEs.
- Design of the course and content
- Assist in mobilization of the MSMEs.
- Shortlisting of top performing MSMEs basis identified criteria.
- Support in compliance, governance of the program and assessment of MSMEs

A meet of industry champions will be conducted quarterly wherein industry experts will be invited, sessions on various topics would be conducted, mentorship would be provided, business ideas of MSMEs would be discussed etc. The industry champions would facilitate and act as the program drivers of the proposed intervention.

Use of ICT/Innovative technology towards project implementation

A platform for assessment shall be developed as a part of this project. Every MSME enrolling in this programme shall undergo set of online workshops and trainings. As part of this initiative, video tutorials shall be uploaded on this portal in Punjabi and English which would enable the MSMEs to access the course wherever and whenever required.

c. **Timelines for achievement of project deliverables and verification protocols**

Year 1:

Components	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Identification of MSMEs across the 12 sectors	■	■										
Workshops to assess the existing entrepreneurial acumen		■										
Workshops to increase access to market for the MSMEs			■	■								
Workshops on developing business opportunities for the local products					■	■						
Workshops in collaboration with industry associations, industrialists, industry players/professionals							■	■				
Workshops on developing business plans to promote growth									■	■		
Workshops on communication and development.											■	■
Assessment of the units												■

*Similar timeline shall be followed for all 5 years in training the 5000 units

Year 2 and Year 3:
Sector-specific classes on alternate weekend would be conducted across 2 years followed by an assessment in the third year for induction into the advance level of trainings.

Year 4 and Year 5:
Rigorous training of the top performing MSMEs would be conducted through alternate weekend classroom program along with exposure visits. An assessment would be conducted by mid of fifth year to identify top performers.

Advancement of the cohorts every year:

	First Year	Second Year	Third Year	Fourth Year	Fifth Year	Fifth Year

Training levels	5 subjects	Sector specific trainings		Scale up	Unicorn
Year 1	First cohort				
Year 2	Second				
		First cohort			
Year 3	Third				
		Second			
			First cohort		
Year 4	Fourth				
		Third			
			Second		
				First cohort	
Year 5	Fifth				
		Fourth			
			Third		
				Second	
					First cohort

2. Estimated impact of the project /scheme/proposal

The proposed project shall aim to target **5000 entrepreneurs/individuals from MSME units** to benefit from the project. **30% of the total target units shall be women owned MSMEs, which in this proposed project shall be 1500 women owned MSME units.** The programme shall cater to MSME units across 12 key sectors to focus on sectoral growth.

3. Project costing and contribution of state government towards it

Component	Total Number	Unit Cost (INR lakhs)	No. of units (course occurrence)	Cost per year (INR Cr)	No. of years	Total tentative cost for 5 years (In Cr.)
Cost of Onboarding Implementation agency (indicatively 5 professionals)	5	0.75		0.45	5	2.25
Development of course content (bilingual), assessment and knowledge portal + annual maintenance cost		50				0.50

Component	Total Number	Unit Cost (INR lakhs)	No. of units (course occurrence)	Cost per year (INR Cr)	No. of years	Total tentative cost for 5 years (In Cr.)
Workshops to be conducted (Year 1) (Total of 15 classes on 5 subjects in 3 batches + 1 assessment)	16	1	5	0.16		0.8
Sector specific trainings to be conducted (Year 2 & 3) (26 classes for 12 sectors per year)	312	0.50	7	1.56		10.92
Sector specific trainings to be conducted (Year 4 & 5) (20 classes for 12 sectors)	240	0.50	1.5	1.20		1.8
Trainings for Unicorn MSME (Year 5) (6 classes)	6	1	1	0.06		0.06
Meetings of Industry Champions (quarterly per year)	4	2		0.08	5	0.40
Admin cost of industry champions (60 champions for 12 sectors) (includes TA & DA)	60	0.50			5	1.5
Total						18.23

State Government Contribution: Employment Subsidy as per Punjab Industrial and Business Development Policy 2022 - Employment Generation subsidy @ Rs 36,000 per employee per year for a maximum period of 5 years and @ Rs. 48,000 per employee per year for a maximum period of 5 years.

Plan for strengthening M&E framework pertaining to the project/scheme/proposal.

1. The individual performance of the entrepreneurs/MSME units shall be assessed through the proposed portal for assessment.

2. Progress of the project would be monitored monthly, quarterly and bi-annually in the review meetings conducted at appropriate levels.

3. The overall capacity building programme of the MSMEs as a part of the RAMP Programme shall be monitored through the RAMP monitoring portal, an initiative being undertaken under the RAMP Programme for monitoring of all the parameters.

6.5. Capacity Building of Officials of Department of Industries and Commerce on Focus Sectors, Subject Areas and Programs of various Line Ministries of Govt of India

Project Summary: The project aims to enable the GM DICs (General Manager- District Industries Centre), BLEOs (Block Level Extension Officer), FM (Functional Managers), SIPOs (Senior Industrial Promotion Officer) and other government officials to create an empowered, proactive, and well-equipped department that can effectively contribute to the growth and development of the MSMEs in Punjab. Our extensive stakeholder consultations with the GM DICs and Industry Associations at the district level highlighted the need to increase and strengthen the capacities of the DIC offices across the state.

Hence, the proposed intervention was envisaged wherein 200+ officials from the Department of Industries and Commerce, Punjab (GM DIC, FM, BLEO, SIPO and other officials) shall undergo training in what can be broadly categorized as - line ministries, services sectors, and key sectors specific to Punjab. The officials shall undergo training across all the categories on the Learning Management System (LMS portal), over the period of 3 years. Periodic assessments of the officials to assess their growth and become eligible for exposure visits shall also be undertaken.

The need to drive the learning and training program for the officials of the state MSME department is mentioned below: -

- **Enhanced Knowledge and Expertise:** Capacity building program shall provide government officials with updated knowledge on emerging trends, best practices, and technological advancements in the MSME sector. This shall help them stay abreast of the evolving business environment and equip them to provide relevant and informed guidance to MSMEs. It shall also enable them to adapt policies and programs to address emerging challenges and leverage opportunities.
- **Strengthened Institutional Capacity:** Capacity building initiatives shall improve the overall competency and professionalism of government officials within the MSME department. It will foster a culture of continuous learning, collaboration, and innovation. This, in turn, will enhance the department's overall institutional capacity to effectively support and promote the growth of the MSME sector.
- **Improved Service Delivery:** Building the capacity of government officials shall enable them to provide better support and services to MSMEs. It will enhance their understanding of the diverse needs of MSMEs and equip them with the skills to deliver tailored assistance, business development services, and access to finance. This leads to improved efficiency, effectiveness, and responsiveness in addressing the needs of MSMEs.
- **Strengthened Entrepreneurship Ecosystem:** An effective training program shall empower government officials to foster an enabling ecosystem for entrepreneurship. The programme shall provide guidance, mentorship, and skill development opportunities to aspiring and existing entrepreneurs, fostering a culture of innovation and risk-taking. This, in turn, promotes entrepreneurship, job creation, and economic growth.
- **Effective Resource Allocation:** The program will equip government officials with skills in monitoring, evaluation, and data-driven decision-making which will enable them to assess the impact and effectiveness of existing programs, identify areas for improvement, and allocate resources more efficiently.

Existing Competencies for the specific theme

Punjab, being a prominent state in India and having considerable number of registered MSMEs, possesses certain existing competencies that can be leveraged for the training programs in the MSME sector. Here are some of the key competencies of Punjab that can contribute to capacity building of the government officials:

- **Training Infrastructure:** The state has a network of training institutions, including academic institutions, Training institutes, and centers, which can be utilized for the implementation of this project. These institutions may provide infrastructure for training facilities, faculty, and resources to deliver specialized programs tailored to the needs of government officials.
- **Strong Policy Framework:** Punjab has developed a robust policy framework across various sectors. [57]This includes policies related to industry promotion, investment facilitation, infrastructure development, and social welfare. Existing policies will serve as case studies and examples for the training programs, enabling officials to understand policy implementation, evaluation, and impact assessment.
- **Technological Advancements:** Punjab has embraced technological advancements and digitalization in various sectors. This technological readiness can be leveraged to introduce MSMEs to emerging technologies, digital tools, and automation, enhancing their competitiveness and efficiency. Learning programs can focus on technology adoption and digital literacy of the officials to unlock the full potential of MSMEs.

By utilizing these existing competencies, the training programs for government officials in Punjab can be tailored to address specific needs, enhance skills, and promote a culture of continuous learning and professional development. Collaboration among training institutions, research organizations, industry associations, and government departments will further strengthen the impact of the training provided and contribute to the overall efficiency and effectiveness of governance in the state.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

The proposed project aligns with **DLI 2: Accelerating MSME Sector Centre-State collaboration**. The project comprises of enhancing the knowledge and skills of GM DICs, BLEOs, FMs, SIPOs and other government officials through training programs with line ministries, service sectors and sectors which will contribute to the growth of the MSME sector in Punjab while aligning with RAMP objectives.

Strategy for project implementation/scheme implementation with pre-defined milestone

1. Understanding the problem statement-

The MSMEs during the stakeholder consultations and primary survey conducted it was highlighted by about 57% MSMEs, the need for capacity-building programmes and handholding support for their specific sectors.

Industry associations and DIC office in Malerkotla and Sangrur, during the stakeholder consultations have highlighted the need for establishment of a mentorship network and capacity building of DIC office for handholding MSME in marketing, policies, finance, and technology adoption.

Moreover, suggestions have come in for DIC office to act as single-stop solution for all kinds of support related to government, finance, and market access. Therefore, it is important to enhance the GM DICs, BLEOs and other government officials with sectoral and service expertise and all- encompassing knowledge about the

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[57] https://pbindustries.gov.in/static/assets/docs/Industrial_Policy_2022.pdf

industries in Punjab. This will empower the government officials to handhold MSMEs through any complications that they might face, pertaining to their specific cluster or sector.

Some of the challenges faced by the MSMEs across all sectors which were determined by the same primary survey were as follows:

- 55% MSMEs highlighted shortage of export facilitators to guide on export compliances, market demand and products to be exported.
- 72% MSMEs highlighted lack of availability of skilled labour or 57% mentioned about requirement of skill development training programs.
- 35% of MSMEs lacked awareness about various schemes and absence of handholding support in applying for those schemes.
- 59% MSMEs lack digital literacy and require capacity building for software interventions and automatic procedures and 32% are unaware about ICT tools and their benefits.
- 45% MSMEs highlighted absence of assistance in establishing market linkages and 25% need for expert consultancy on all marketing needs like branding, designing, packaging, developing product portfolios, etc.
- 44% highlighted about limited R&D facilities in the state to help shift to green technology.

Through these inferences, it can be assessed that while some MSME units might be able to access these asks due to availability of capital, a lot of them may be unable to do so due to limited capital and knowledge available. Hence, the department needs to strengthen its capacities to provide the required support to MSMEs in the districts. GM DICs, BLEOs and other government officials will collaborate and equip themselves with the knowledge and training to deal with specific challenges pertaining to their sector/cluster, faced by the MSMEs in the state.

2.   Proposed project design, concept, feasibility, viability-

The programme aims to build capacities of **200+ identified government officials**, who will be further categorized into a combination of GM DICs/BLEOs/FM/SIPO/or any other identified government official in each district of Punjab. The GM of the district may take the lead to identify the officials who shall undergo the training. The programmes shall be open to all, and each individual shall have to undergo training across all sectors.

Moreover, in order to roll out the training programme, an assessment of the existing strength of GM DICs, BLEOs, FM & SIPO through relevant databases from the Department of Industries and Commerce has been carried out.

District	GM DIC	BLEOs	FM	SIPO
Amritsar	1	5	4	6
Barnala	1 (addl. charge)	2	2	3
Bathinda	1 (addl. charge)	4	3	4
Faridkot	1 (addl. charge)	6	3	3
Fazilka	1	2	3	3
Ferozepur	1	2	4	4
Gurdaspur	1	3	4	4
Hoshiarpur	1	3	4	4
Jalandhar	1	1	5	6

Kapurthala	1	1	2	3
Ludhiana	1	4	5	6
Malerkotla	1 (addl. charge)	5 (addl. charge)	3	4
Mandi Gobindgarh	1	3	-	-
Mansa	1	3	3	3
Moga	1	3	3	3
Pathankot	1	2	3	3
Patiala	1	5	5	6
Rupnagar	1 (addl. charge)	5	3	3
S.A.S Nagar	1	2	5	6
Sangrur	1 (addl. charge)	5 (addl. charge)	0	0
SBS Nagar	1	2	2	3
Sri Muktsar Sahib	1	2	3	3
Tarn Taran	1	4	2	3
TOTAL	**20**	**69**	**71**	**73**

GM DIC to identify participating BLEO, FM, SIPO and other officials from their district/headquarter

The total of GMs, BLEOs, FMs and SIPOs across the districts stands at 233. More officials shall be nominated from the Department to undergo the training.

The training program shall be spread across three broad components: -

1. Training on Line Ministries
2. Service-specific Training
3. Sector-specific training

There will be about a total of 18 categories in line ministries, 20 categories in service areas and 12 focus industrial sectors of Punjab (all mentioned in the coming sections). A Learning Management System portal will be developed to help the government officials in efficient learning and training. Through this software, all the training-related materials will be uploaded, managed, provided, and tracked for the government officials.

The curriculum for the training shall be developed by existing identified MSME Development Institute, National Institute for MSMEs or any other agency. This agency shall consult the sectoral experts from the MSME wing, department representatives, GM DICs and government officials. The curriculum shall be developed in two languages – English and Punjabi and be made available online and on the digital library. All the content developed shall have an online presence wherein it can be accessed through phones as well. The officials undergoing training shall be provided with laptops to access all the reading materials and undertake the training.

The training in both the areas will be spread over 3 years and each year the level of training will be upgraded. Every module shall have a specific duration in which it needs to be completed. An assessment will take place after every 6 months to ensure proper implementation of the project. Based on the assessment and performance, the individual who performs well on the assessment parameters shall be provided with an opportunity to undergo an international/domestic exposure visit for their chosen sector.

Feasibility

The proposed project is feasible for the state of Punjab as building institutional strength and capacities of the government officials is a key priority area for the department. Given that the MSMEs across sectors seek support from the DIC office in availing policy, present their grievances and ask for handholding support, capacity building of officials shall play an important role in creating an overall environment of support, knowledge, and sector development.

Viability

The project is viable as strengthened government departments and officials reduce the dependency of MSME units on external facilitators and serve as a one-stop solution for their assistance. Strengthened government departments help in stringer policy formulations and roll outs, completely addressing the needs of the MSMEs, across sectors in their state.

3.   Approach and Methodology for execution/implementation-

The capacity building program shall be spread across 3 components and a detailed curriculum will be formed by the sectoral experts in conjunction with government officials, industry, representatives, GM DICs across the components.

1. **Line Ministries –** The officials undergoing training shall undertake trainings across the below mentioned components. While the list is suggestive, thorough training of existing policies, scheme, how to avail them and their performance so far shall be a compulsory module for all the trainings.

S.No.	Ministries	Proposed Area of Training
1	Ministry of Agriculture and Farmers Welfare	• Application of ICTs in Agriculture • Agricultural Knowledge & Marketing Management • Agri Tools and their upgradation • Farmer Producer Organization
2	Ministry of Ayush	• Medical Value Travel • Export Services of AYUSH products
3	Ministry of Chemicals & Fertilizers	• Fertilizer Quality Control includes Marketing, Distribution, Analysis & Increasing Exports
4	Ministry of Commerce and Industry	• Foreign Trade • Export Promotion for sectors across India
5	Ministry Consumer Affairs, food, and Public Distribution	• Consumer Protection Act, 2019. • Implementation of Bureau of Indian Standards Act, 2016 • Implementation of Standards of Weights and Measures - The Legal Metrology Act, 2009.
6	Ministry of Electronics & IT	• Basic and Advanced Course on Cybersecurity • Technological Advancements across countries IT and Electronics

7	Ministry of Environment, Forest and Climate Change	• Sustainable, Green Technologies • Combatting Climate change
8	Ministry of Finance	• Public Financial Management • Accounting and Audit
9	Ministry of Food Processing Industry	• Mega Food Parks, National Mission on Food Processing, Cold Chain
10	Ministry of Health & Family welfare	• Global Health Initiative • Leveraging Traditional Medicine
11	Ministry of Heavy Industries	• Machine tools, heavy electrical, industrial machinery, auto industry.
12	Ministry of Labor & Employment	• Employability Training Programme • Skill trainings for labours across sectors/industries
13	Ministry of New & Renewable Energy	• Human Resource Development programme is to institutionalize the renewable energy education and training
14	Ministry of Rural Development	• MNREGA • Existing rural development welfare schemes & their penetration so far • SHGs
15	Ministry of Power	• Power Management • Renewable Energy & Grid Interface Technology
16	Ministry of Skill Development & Entrepreneurship	• Overview of courses across all SSCs
17	Ministry of Textiles	• Capacity Building in textile sector across urban and rural areas
18	Ministry of Tourism	• Boosting tourism through identification & leveraging of indigenous resources/products

2. **Service –** Below mentioned are the identified service areas which are prevalent and require training to be introduced in the state of Punjab. The officials shall undergo trainings in these areas and build their expertise.

Sl.No.	Service
1	Public Procurement/GeM
2	Special Purpose Vehicle - Section 8
3	G.S.T
4	Interest Subvention/Subsidy
5	Waste Management
6	STP/ETP/CTP
7	Apprenticeship
8	Startup/Incubation

9	Fund Raising
10	Pollution Board
11	Housing and Urban Development
12	Local Government of Punjab
13	Labour Laws
14	Punjab State Power Corporation Limited (PSPCL)
15	Forest Management & conservation
16	Taxation
17	Ease of doing Business
18	Reducing Complexities in MSME Operations
19	Land Procurement
20	IPR/Trademark/GI

3. **Punjab Specific Identified Sectors, inclusive of sunrise/thrust sectors-** Through our primary survey and stakeholder consultations, the core sectors below have been identified. Training & capacity-building programmes for the officials will be built across these sectors. The list, however, is not exhaustive and may be amended post consultations from government officials.

Identified Sector	[58]Broad Areas of training
Agriculture Implements	● Agriculture implements for harvesting- used to harvest the matured crops. ● Agriculture implements for irrigation- pivot irrigation systems and pump units. ● Agriculture implements for soil cultivation- used to plough the soil and get it ready for irrigation. ● Planting machinery- used to plant seeds and saplings, cutting down the manual labour. ● Assessment of export compliances and market demands
Auto and Auto Components	● Engine- manufacturing for various automobiles like tractors ● Transmission system- types of systems and its use, manufacturing hubs of its various components ● Auxiliaries' system- different types of systems like alarm, control and monitoring system, engine start- stop system, etc. ● Setting up of export cells and understanding export regulations and market trends
Food Processing and Standards	● Warehousing- storage and transportation of perishable and semi-perishable products ● Food safety- understanding of rules, regulations, and compliances. ● Addressing issues pertaining to export of food products

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[58] https://pbindustries.gov.in/static/assets/docs/N_14328_1620729878350.pdf

Bicycle	● Addressing issues of R&D facilities for e-bicycle and cycle testing and development ● Upgrading existing facilities for bicycle manufacturing ● Understanding national and international bicycle safety requirements
Hand Tools	● Household tools- wrenches, screwdrivers, pliers, hammers ● Tools for working wood- hand saws, hand drills and braces, mallets, wood turning tools, wood finishing products. ● Blow lamps- used to heat metal or remove old paint. ● Assessment of export compliances and market demands
Power Tools and Machine Tools	● Motors, internal combustion engines, compressed air ● Assessment of export compliances and market demands ● Different types of cutting tools, general purpose machine tools, gear cutting machines, CNC machines, tool wear and tool life etc.
Textile	● T-shirts and Shirts- Understanding manufacturing process flows, labour laws and working on bridging the issue of transportation cost. ● Woolen yarn- large scale production and cutting cost for transportation. ● Textile Phulkari- lack international recognition and need rebranding. ● Blankets and Traveling rugs- Addressing export issues to the neighbouring countries. ● Provide handholding support in all export related formalities. ● Technical Textile- Introduction to technical textiles, textile reinforced components, filter fabrics, geotextile etc.
Sports Goods	● Game equipment- includes balls, goal posts, nets, racquets, wickets, stocks, bats, clubs, etc. ● Player equipment- footwear, protective equipment, training equipment and special sports equipment ● Setting up of common facility centers for testing of products that will be ready to export. ● Assessment of sector requirements and export compliances
Engineering Goods	● Enhancing global opportunities for engineering goods produced ● Technological advancements and the future of engineering goods in India
ESDM (emerging sector)	● Electronics, semi-conductors and hardware ● System design and manufacturing techniques, technology, R&D
Pharmaceuticals	● Drug formulations and biologicals ● Process of pharmaceuticals manufacturing ● Dispensing pharmacy ● Improving pharma technology ● Acquiring knowledge about pharmaceutical jurisprudence
Potential / sunrise sector for the State of Punjab	

All the identified government officials shall be provided with training across these above-mentioned components. The training will start at the basic level and move onto more advanced levels year after year. To

ensure that the training programs are reaping the results, there will be an assessment conducted every quarter. Here, the officials undergoing training will be tested on their knowledge about the line ministry, service sector and Punjab specific sector and if they manage to secure 80% and above scores then they shall be eligible for an international exposure visit for their respective sector. The assessment will be conducted through a Learning Management System (LMS) which is a web- based technology platform used to plan, implement, and assess a specific learning system.

Exposure Visits and Events

A mixed group of government officials, industry champions who are being onboarded under the capacity building intervention under the RAMP program, MSMEs undergoing the capacity building project intervention under the RAMP program and sector experts in the MSME wing will be eligible for the exposure visits – regional, domestic and international. Domestic and international visits would comprise sector specific clusters, academic and R&D institutions, top performing states/countries, exhibitions, conferences, events and seminars etc.

For the first three years, domestic exposure visits would be organized whereas international exposure visits would be organized in the fourth and the fifth year. MSMEs will be eligible for the exposure visits in the second and fifth year.

The above cohort will attend all the marquee events across sectors, domestically and internationally. These marquee events could be – seminars, workshops, training sessions etc.

4.   Timelines for achievement of project deliverables and verification protocols
Given below are the tentative broad timeline for the project, basis the requirement and discussion with the relevant authorities, more granular details of timelines can be worked out for the project.

Year	Training Levels
Year 1	Phase I- Basic
Year 2	Phase II- Intermediate
Year 3	Phase III- Advanced

Year 1 (Basic)

Components	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Implementation of the Learning Management System (LMS portal)	■	■										
Enrolment of the officials			■									
Training Phase I				■	■	■	■	■	■	■	■	■
Domestic Events					■			■			■	

Components	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Exposure Visits for selected candidates							■					

Year 2 (Intermediate)

Components	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Training Phase II	■	■	■	■	■	■	■	■	■	■	■	■
Domestic Events					■			■			■	
Exposure Visits for selected candidates			■				■					

Year 3 (Advanced)

Components	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Training Phase III	■	■	■	■	■	■	■	■	■	■	■	■
Domestic Events					■			■			■	
Exposure Visits for selected candidates			■				■					

Year 4

Components	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
International Events						■						

Year 5

Components	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
International Events						■						

5. **Estimated impact of the project project/scheme/proposal-**

A well implemented training and learning program project for **200+ Department of Industries and Commerce, Punjab officials** will indeed have a wider impact to all 6 lakh+ registered MSMEs of Punjab. There are some ways in which the project will contribute to economic growth:

- **Enhanced Workforce Skills:** By providing training and development opportunities, the project would enhance the skills and capabilities of the industry workforce. This will lead to improved productivity, higher quality outputs and increased efficiency in various sectors. A skilled workforce is more likely to attract investment and create employment opportunities.
- **Increased Productivity:** Capacity building initiatives often focus on improving processes, technology adoption and best practices. By equipping industry professionals with the necessary knowledge and tools, the project can contribute to increased productivity levels within the industry by addressing the needs of MSMEs. Higher Productivity translates to higher output levels, better competitiveness, and improved economic performance.
- **Innovation Promotion:** Training projects can foster innovation within the industry department. By providing government support to the MSME units, the units shall be able to better absorb the available schemes and be encouraged to generate innovative solutions, new products, and improved processes, contributing to the overall growth and competitiveness of the industry.

6. Project costing and contribution of state government towards it

The costing will include the following parameters:

Component	Unit Cost per year (INR lakh)	Total Number	Tentative Cost (INR Cr)
Learning Management System (LMS Portal) Development. Shall include the following: ○ Platform Development ○ Pilot Testing ○ Implementation & Roll Out ○ User Training ○ Repository of e-content and curriculum ○ Mobile App development and integration for developed e content ○ Annual Maintenance	-		5
Laptops for all officials undergoing trainings	100 laptops – 1,00,000 150 laptops – 70,000	250	2.05
Content/Curriculum development in collaboration with National Institute for MSMEs/MSME Development Institute or any similar identified institute/agency. Content development shall be applicable for the two years only.	0.45		0.90
Total			**7.95 Cr.**

7.   Plan for strengthening M&E framework pertaining to the project/scheme/proposal.

1. A Learning Management System (LMS) will be used for the project to plan, implement, and assess the learning systems for officials. This customized LMS will create and deliver relevant content to the GM DICs, BLEOs, FM, SIPO and other identified government officials to monitor their participation and assess their performance. **The portal would be accessible to all candidates and officials at the department to monitor the learning progress of all the enrolled officials.** The portal shall also reflect the performance of officials across each level, scores, eligibility for exposure visits and upcoming lessons.

2. Further, the suggested intervention shall also be monitored through the MSME Digital Portal, being proposed as a part of the intervention in MSME Database Creation project.

3. Progress of the project would be monitored monthly, quarterly and bi-annually in the review meetings conducted at appropriate levels.

6.6. Punjab Online Dispute Resolution Platform: Resolving MSME Delayed Payments in Punjab through development of a state portal.

Project Summary:

The project aims to fasten and address the issue of delayed payments through the development of a state Online Dispute Resolution platform to address this issue faced by the MSME's in the State of Punjab.

Existing Competencies for the specific theme

Depriving the MSMEs of their rightful dues has widespread repercussions that transcend beyond the MSMEs facing it. The effects trickle down the chain, and consequently all stakeholders, including raw material suppliers, manufacturers, sellers, buyers, banks, investors, government, and the economy at large, face the brunt, either directly or indirectly.

The vicious cycle of delayed payment affects various stakeholders in different ways.

- **MSME Suppliers:** Withholding payments of suppliers adversely impacts their working capital cycles and deprives them of the opportunity to reinvest the capital and grow.

- **Buyers:** While buyers might manage their working capital needs in the short-term by delaying payment to MSMEs, in the longer run, since suppliers are compelled to take short-term loans, the cost of production naturally increases, thereby raising the cost of goods and services.

- **Financial Institutions:** In the event MSMEs do not receive their payments in time and are not able to manage their cash flows, they might delay / default on their loan repayment to the financial institution. This leads to high borrowing rates due to low credit scores. Moreover, the banks do not provide loans to MSMEs easily in the absence of collateral which in turn creates a financial deficit for the MSMEs.

- **Indian Economy:** The problem of delayed payments negatively impacts the economy at large. The increased price paid by the buyer, rising borrowing rates, gaps in working capital cycles, amongst other things, gives rise to numerous economic challenges such as rising inflation, reduction in industrial output and exports, increased unemployment, and erosion of trust.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

The proposed project aligns with the DLI 6 of the RAMP scheme which is ***"Expanding access to Online Dispute Resolution Mechanism (ODR)".***
As per the existing Samadhan Portal data, Punjab till date has 3358 (applications + cases) pending. It must be considered that there might still be many MSMEs in the state that are not aware of the Samadhan portal or may be facing technological issues in accessing the platform. Development of a regional ODR platform shall help the MSMEs in conflict resolution and help them better avail the benefits of central and state government schemes for MSMEs. Moreover, the dispute resolution process for MSMEs through Samadhan Portal is not completely online. Hence, to make the process more streamlined and efficient it is imperative to introduce a state level ODR mechanism for Punjab.

During the primary survey conducted across the state of Punjab with 5016 MSMEs and industry associations, it was inferred that the problem of delayed payments is a major challenge faced by 48% of the MSMEs. Retrieving payments becomes an issue for the units and there is a need to establish a state mechanism that

can address this.

Overview of the Samadhan Portal Data - Punjab, 2023

S.No.	State Name	District Name	Applications filed by MSEs	Application Pending	Cases Pending	Total Pending (Application + Cases)
8	PUNJAB	LUDHIANA	4814	201	1470	1671
46	PUNJAB	S.A.S NAGAR	811	599	112	711
62	PUNJAB	JALANDHAR	527	96	175	271
81	PUNJAB	SANGRUR	304	244	32	276
94	PUNJAB	PATIALA	227	44	117	161
103	PUNJAB	FATEHGARH SAHIB	195	26	64	90
123	PUNJAB	AMRITSAR	159	19	22	41
191	PUNJAB	BATHINDA	64	13	19	32
203	PUNJAB	KAPURTHALA	51	22	0	22
241	PUNJAB	MOGA	34	0	3	3
242	PUNJAB	HOSHIARPUR	34	2	0	2
255	PUNJAB	RUPNAGAR	29	13	6	19
278	PUNJAB	PATHANKOT	23	5	5	10
282	PUNJAB	SRI MUKTSAR SAHIB	21	0	0	0
287	PUNJAB	GURDASPUR	20	5	0	5
298	PUNJAB	FARIDKOT	17	3	6	9
313	PUNJAB	BARNALA	15	13	1	14
368	PUNJAB	NAWANSHAHR	9	3	0	3
393	PUNJAB	FIROZEPUR	7	1	4	5
399	PUNJAB	MANSA	6	2	1	3
438	PUNJAB	FAZILKA	5	0	4	4
482	PUNJAB	MALERKOTLA	3	3	0	3
636	PUNJAB	TARN TARAN	0	0	0	0
	Grand Total		151638	37818	31693	69511

Strategy for project implementation/scheme implementation with pre-defined milestone

e) Understanding the problem statement

MSMEs are the second-largest contributors to the Indian economy in terms of economic & social development and generation of employment opportunities. According to the Central Statistics Office, Ministry of Statistics and Programme Implementation, share of MSMEs Gross Value Added in All India Gross Domestic Product for the year 2019-20 was 30%. Over 6.3 crore MSMEs employ 11+ crorepeople, which constitutes approximately 40% of the non-agricultural workforce. The key strength of Punjab is its thriving eco-system of well-established micro, small and medium enterprises. Punjab is home to approximately 6 lakhs+ Udyam registered MSME units, which are one of the most important pillars of the industrial growth. MSMEs are truly the backbone of the Indianeconomy and unlocking their complete potential will be pertinent in realizing India's mission of becoming a $5-trillion economy. However, one of the major impediments to the holistic development of the MSME sector is the problem of delayed payments. The issue of delayed payments is pervasive, longstanding, and cripples the MSME ecosystem in multiple ways.

Causes of delayed Payments for MSMEs in India[59]:

Reasons for Delay	Counts	Percentage
Mutually Agreed to payment terms > 45 days	51,873	44.0 %
Insufficient funds at buyer's end	19,678	16.7 %
Delay in submission of invoice	16,616	14.1 %
Buyer dissatisfied with quality	9,428	8.0 %

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[59] https://massentrepreneurship.org/wp-content/uploads/2022/12/Delayed-Payments-Report.pdf

Reconciliation in progress	4,278	3.6 %
Incomplete GST Compliance by seller	4,210	3.6 %
MSME status unknown to buyer	3,124	2.7 %

Causes of delayed Payments for MSMEs in Punjab

During the primary survey and consultations with stakeholders, it was noted that the causes for delayed payments in Punjab are manifold. While the reasons overlap with what MSMEs face in the country at large, the state-wide causes can be categorized as below: -

- The manufacturers and industry associations in Punjab stated they need to invest in raw materials, manufacture goods, and sell them to customers. Manufacturers, who have already invested substantially in buying raw materials for production, end up with a huge cash crunch due to the 90-120-day cycle for cash receivables and subsequent delays by their customers. Also, they are hampered by weak bargaining power as they juggle between corporate buyers and a highly networked raw material supplier base.
- There is a need for a robust digital ecosystem that bridges a gap to resolve the delayed payments challenges. Digital solutions that bring together government, corporates, financiers, and finance enablers such as credit bureaus and fintech are key to mitigating and addressing the problem of delayed payments.[60]

As for Punjab, in the Delayed Payments Report 2022 by GAME, close to 59% MSMEs are currently in the cycle of delayed payments. Moreover, 28% are between 1-60 days of days past due the payment and 13% are above 60 days past due payment date. [61]

Other broader causes of delayed payments can be categorized as below: -

1. **Problem of Power Asymmetr**y: In 2019, the UK Sinha Committee on MSMEs highlighted the issue of delayed payments as a grave concern for MSMEs in the country and stated the 'low bargaining power' among MSMEs as the core driver for the persistence of the issue.

2. **Lack of Formalization in the MSME Sector:** The remedies prescribed under law for delayed payments are available only to MSEs who have procured the Udyam Registration Number. Till date close to 1.71 Cr MSMEs have enrolled themselves on the Udyam portal, while it must be addressed there must be units that have still not registered on the platform due to lack of awareness, technical know-how and the importance of registering on the platform. This inorganization in the sector leads to the lack of adoption and access to formal remedies to recover delayed payments.

3. **Low enforceability of Section 15 and 16 of the MSMED Act:** Registered MSEs can invoke Section 15 and 16 of the MSMED Act. Interactions of GAME while curating the report on 'Delayed Payment' published in May 2022 suggest that this provision is seldom enforced by MSEs.

4. **Low Awareness and Implementation of Institutional Recourse Mechanisms:** Institutional recourse mechanism to resolve delayed payments has been established across the country in the form of Micro and Small Enterprises Facilitation Council (MSEFC). Registered MSEs can avail various remedies as prescribed under the MSMED Act by approaching the concerned MSEFC. However, the primary survey

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[60] https://www.news18.com/business/msmes-delayed-payment-problems-the-role-of-3-central-pillars-in-resolving-this-issue-8004985.html

[61] https://massentrepreneurship.org/wp-content/uploads/2022/12/Delayed-Payments-Report.pdf

portrays 'lack of awareness' from 55% MSME respondents as one of the major factors behind the underutilization of existing institutional mechanisms.

5. **Lack of Streamlined Process Followed by MSEFCs**: Provisions of the Micro, Small and Medium Enterprises Development Act (MSMED), 2006 empower StateGovernments to make rules to carry out the provisions of the Act. A study of these rules revealed that MSEFCs across the country consider different set of requirements while evaluating applications filed before them.

6. **Overburdened and Inexperienced MSEFCs**: Data from the Samadhan portal reveals that the State MSEFCs are overburdened and under-resourced.

f) Proposed project design, concept, feasibility, viability

To contain and eventually eradicate the problem of delayed payments, a state specific.
 ODR platform is proposed to assist MSMEs, buyers and the government institutions.

Project Design

Component 1: Development & Deployment of Online Dispute Resolution ('ODR') Platform

The ODR platform shall be developed and deployed for the purpose of facilitating conciliation and / or arbitration in MSME delayed payment cases for Department of Industries, Government of Punjab. It is proposed that ODR may be integrated eventually with Samadhan portal and TReDS platform.

Platform Framework:

    a. Admin dashboard under control of Department of Industries & Commerce, Punjab

    b. Admin dashboard under control of each MSEFC

    c. User dashboard for MSME and corresponding buyer

    d. Conciliator / arbitrator dashboard

Preliminaries:

2. Necessary capacity building of the platform shall encompass: -
    a. Training on use of platform, demo tutorials and guidebooks
    b. ODR standards, dispute resolution rules, code of conduct, guidelines for video-conferencing, terms of use, privacy policy, cookie policy
    c. Setup of super admin account with necessary functionalities
    d. Setup admin account with necessary functionalities
    e. Setup of user account with necessary functionalities
    f. Setup of conciliator / arbitrator account with necessary functionalities

Conciliation Module:

    a. Case registration form for MSME

    b. Approval / rejection of cases + allocation of case to conciliator

    c. Auto-generation of conciliation notice + conciliator appointment letter

    d. Onboarding functionality for corresponding buyer along with additional authentication

e. Scheduling of joint / caucus hearing and automated reminders

f. Downloadable report

g. File sharing functionality

h. Case withdrawal functionality

i. Uploading functionality for conciliatory award / settlement agreement / non-starter report/ failure report

j. Digital transmission of communication

k. Real-time case status

Arbitration Module:

a. Case escalation to arbitration

b. Approval / rejection of cases + allocation of case to arbitrator

c. Auto-generation of arbitration notice + arbitrator appointment letter

d. Onboarding functionality for corresponding buyer along with additional authentication

e. Functionality for pleadings

f. Functionality for preferring applications by parties

g. Functionality to pass directions by arbitrator.

h. Scheduling and automated reminders of oral hearing

i. Downloadable reports

j. Functionality to pass arbitral award by arbitrator.

k. Digital signing and stamping facility

l. Digital transmission of communications

m. Real-time case status

Component 2: Administering delayed payment disputes.

Referral for conciliation:

1. Upon referral of delayed payment case under Section 18(2) of the MSMED Act, 2006 read with relevant provision of the state rules, ODR Institute to administer online conciliation in accordance with Section 65 to 81 of the Arbitration andConciliation Act, 1996 read with the dispute resolution rules.

2. Submission of conciliation report to the concerned MSEFC.

Referral for arbitration:

3. Upon referral of delayed payment case under Section 18(3) of the MSMED Act, 2006 read with relevant provision of the state rules, ODR Institute to administer online arbitration in accordance with the provisions of the Arbitration and Conciliation Act, 1996 read with the dispute resolution rules.

b) Referral of award to the concerned MSEFC.

Component 3: Human resource cost

MIS experts and Systems Managers shall be recruited as a part of this project to ensure smooth roll out of

the project, manage the hardware and software installed and provide all necessary technical support possible.

Repository of all cases received.

The portal shall encompass records of all the delayed payments cases received. This shall serve as a repository that can be referred to in case of any future case-to-case requirements.

4. **Project feasibility and viability**

Feasibility

To address and eventually eradicate the problem of delayed payments in Punjab and reduce the case load and grievances of MSMEs in the state, it is proposed to develop a state ODR portal for Punjab to assist MSMEs, buyers and the incumbent institutional set-up. The proposed project will have a direct impact on the economy of the State as delayed payments faced by MSMEs - one of the major roadblocks in the growth of MSMEs, will be tackled effectively.

Viability

The state ODR portal is a viable intervention that can be proposed as a part of RAMP. Given that it is local to the state of Punjab and the MSMEs existing here, it shall be able to provide fast track resolution of cases. Given that the GM office shall be well equipped on the functionalities of the platform, they shall be instrumental in spreading awareness on this existing state portal and onboarding more and more MSMEs to access the Punjab State ODR Portal and experience grievance redressal and a low turnaround time.

Approach and Methodology for execution/implementation

The software part of the platform shall be developed on a suitable platform. A platform that aligns with technological requirements of the state, understanding of the concerned stakeholders and availability of experts to impart training on the platform created. Other than the software part, necessary capacity building shall be undertaken of the government officials so that they are aware of the functionalities of the portal. MIS Expert and Systems Manager shall be deployed as a part of the project to overlook the software and data part of the project.

The scope of work of the MIS Expert and Systems Manager is given below:

> **Systems Manager**
> - Plan, install and monitor the software deployed.
> - Provide assistance for troubleshooting and address technical lags.
> - Recommend possible module/software upgrades and help in their installation.
>
> **MIS Expert**
> - Develop and maintain the database by customizing existing computer information systems.
> - Coordinate with the MIS systems of other departments to ensure timely updated data.
> - Undertake data analysis and data triangulation from other data sources for corroboration and ensuring data authenticity.

Use of ICT/Innovative technology towards project implementation

The state ODR Portal shall be a web portal with all functionalities that reflect data in real time. Provision for sending alert message to DCs and parties may be provided in the ODR.

Timelines for achievement of project deliverables and verification protocols

Given below are the tentative broad timelines for the project, basis the requirement and discussion with the relevant authorities, more granular details of timelines can be worked out for the project.

Development of the ODR Platform

Activity	M1	M2	M3	M4	M5	M6
Platform development	■	■	■			
Implementation and deployment – Procuring a domain name, Hosting on a domain name and server.				■	■	
Creation of storage, obtaining certifications, integration with 3rd party						■

Estimated impact of the project project/scheme/proposal

The proposal aims to have a wider impact on the existing 6,00,000+ registered MSME units in the state of Punjab. About **1,25,000 MSMEs** (25,000 per year) would receive support in resolution of challenges in delayed payments being faced though the ODR platform. Moreover, the ODR portal shall also help in reducing the burden of MSEFCs and strengthen their skills of conflict resolution by upskilling them. The increase in efficiency of MSMEs shall help in faster resolution for MSMEs.

Project costing and contribution of state government towards it

Sr. No.	Particulars	Tentative Amount (INR in cr.)
1. Development & Deployment of Online Dispute Resolution ('ODR') Platform		
I	Platform development (includes annual software costs and annual maintenance costs)	2
II	Implementation and deployment – Procuring a domain name, Hosting on a domain name and server, User Training	1
III	Costs for cloud/server, storage, network; certification costs; integration costs with third-party vendors	1.2*
IV	Setting up of a 10-seater conference room across all districts	0.23
V	Table for Virtual Conferencing across all districts	0.35
VI	50-inch TV screen	0.13
VII	Virtual Conferencing Equipment Setup	0.5
VIII	Miscellaneous charges inclusive of local labour, stationery etc.	0.11
	Total	**5.52**
2. Human resource cost		
I	MIS Expert @ 1 lakh per month	0.6
II	System Manager @ 1 lakh per month	0.6

	Total	1.2
	Total Tentative Cost of the Project	**6.72 Cr.**

Note:

*Dynamic costing shall depend on the data load, number of beneficiaries etc.

1. Costs for modifications, additional features and new development will be estimated based on specific requirements.

2. Costs mentioned above are estimations and may vary at the time of execution of project depending upon the actual cost of items, manpower, licenses, etc.

3. The above costs do not account for escalation.

State Government Contribution: Physical Infrastructure at the DICs provided in terms of conference hall, furniture, and all operational expenditure by the State.

Plan for strengthening M&E framework pertaining to the project/scheme/proposal.

To ensure smooth functioning of the platform and always ensure a hassle-free experience for stakeholders, regular maintenance and evaluation activities shall be undertaken as follows:

- **Representatives of the GM DIC office across the 23 districts** shall be trained in operating the platform. This representative shall also be responsible for imparting training to other stakeholders as required. These representatives shall be responsible for tracking the progress in their districts and give timely report to the state department.

- **Periodic reviews / inspection of the ODR platform** shall be undertaken to gauge if it is meeting the required objective.

- **Testing of the platform** shall be carried out at periodic intervals, as mutually discussed, to identify and fix bugs.

- **Regular technical maintenance** of the ODR platform shall be undertaken on a periodic basis as mutually determined and source code will be kept always updated.

- **Periodic feedback** will be obtained from the users of the platform and all impacted stakeholders to understand benefits and required improvements of the ODR platform, during capacity building workshops. Thereafter, changes / further developments will be undertaken as per requirement.

- Feedback will be obtained on the ODR training course and workshop content from the initial attendees and necessary changes will be incorporated for further workshops in the State.

Moreover, the **MSME Digital Portal** proposed as one of the major RAMP interventions shall encompass the project details, primarily focussed on the reduction in delayed payments cases in the state.

6.7 Setting up of MSME and GEM Facilitation Centres across all districts targeting an aggressive information dissemination drive through Awareness workshops

Project Summary: The objective of this project is to develop comprehensive awareness campaigns targeted at MSMEs in different districts of Punjab, with the aim of educating them about various schemes initiated for their benefit. The focus will be on providing clear understanding and information regarding the **Six champion schemes, TReDS (Trade Receivables Discounting System), Punjab Industrial and Business Development Policy 2022, and CGTMSE (Credit Guarantee Fund Trust for Micro and Small Enterprises)** and 12 key focus sectors of the State of Punjab which includes (Machine Tool, Hand Tools, Sports Goods, Food products, Bicycle, Textile, Agriculture Implements, Pharma, Engineering Goods, Auto & Auto Components, ESDM (emerging sector) and potential / sunrise sector for the State of Punjab)**.** Additional initiatives like **GeM, GST, Audits** shall be explored through these awareness campaigns. This project will also support in handholding MSMEs for adoption of **Green Certifications** basis a well-defined framework of rating system, which would eventually help them in reducing the consumption of energy, water and other natural resources and promote ecologically sustainable growth in their companies.

MSME Facilitation Centres shall be created as a part of this project that shall be set up across all the districts in the DIC office and run by the DIC officials. These centres shall provide assistance to MSME units in regulatory support, access to finance, grievance redressal and marketing support and shall be equipped with necessary hardware for awareness generation.

The awareness sessions as a part of this project shall be organized across the districts every quarter by subject matter experts, technical experts, government officials and industry stalwarts. The following are the schemes that would be covered in the training sessions**,** the list is not exhaustive and may be added basis the needs of the clusters/sectors.

Six Champion schemes	The Six Champion Schemes introduced by the Government of India are aimed at supporting and promoting the growth of Micro, Small, and Medium Enterprises (MSMEs) in the country. These schemes encompass various aspects crucial to the development of MSMEs, including access to credit, technology upgradation, market expansion, and ease of doing business. The six schemes are: - Incubation Scheme - Lean Scheme - Design Clinic Scheme - Digital Scheme - ZED (Zero Defect Zero Effect) Scheme - IPR (Intellectual Property Rights) Awareness
TReDS (Trade Receivables Discounting System)	TReDS benefits MSMEs by enabling them to convert their trade receivables into immediate cash flow, addressing the issue of delayed payments and improving their working capital position.
CGTMSE (Credit Guarantee Fund Trust for	CGTMSE supports MSEs by providing collateral-free credit guarantees to financial institutions, encouraging them to extend loans to these enterprises that may otherwise face challenges in accessing traditional collateral-based financing.

Micro and Small Enterprises)	
12 Key Sectors	Machine/Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture Implements, Pharma, Engineering Goods, Auto & Auto Components, ESDM (emerging sector) and one potential / sunrise sector for the State of Punjab
Punjab's Industrial and Business Development Policy 2022	Punjab's Industrial Policy focuses on creating a favourable business environment for MSMEs, offering various incentives, subsidies, and infrastructure support to promote their growth and development in the state. The policy aims to attract investment, enhance competitiveness, and provide opportunities for MSEs to thrive in Punjab's industrial landscape.
Green Certification	Green Certification is an initiative towards greening and reducing carbon footprint which is priority for the Punjab government. Adopting greening initiatives or technology which reduces waste generation, conserve material, emits less pollutants, saves energy etc. and helps achieving larger objective of bringing in positive social, environmental and financial impact.

Existing Competencies for the theme

Punjab houses more than 6 lakh+ registered MSME units in the state, while this is the data that reflects in the Udyam portal, there are also multiple units that stand unregistered and are not aware of the existing schemes and their benefits. The government officials in the state too are zealous to learn and provide the best possible opportunities for the MSMEs in the state. Hence, a well thought-out and planned awareness programme and setting up of MSME facilitation centres shall bear great results for the MSME sector and provide them with required support as it shall cover multitude of central, state schemes and other initiatives that are introduced for MSMEs.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

The proposed project aligns with **DLI 3: Enhancing the effectiveness of Firm Capabilities Scheme of RAMP**. This project comprises of developing comprehensive awareness campaigns for MSMEs in Punjab while aligning with the RAMP objectives in the following ways:

- *Promoting Growth and Development:* The project aims to empower MSMEs by providing them with knowledge and resources to take full advantage of various schemes initiated for their benefit.
- *Enhancing Competitiveness:* By educating MSMEs about the six champion schemes, TReDS, Punjab Industrial and Business Development Policy 2022, and CGTMSE, the project shall enable MSMEs to enhance their competitiveness in the market. Through increased awareness and understanding, MSMEs can make informed decisions and leverage the schemes to improve their business performance.
- *Facilitating Access to Finance:* The awareness campaigns will focus on educating MSMEs about CGTMSE, a credit guarantee scheme for micro and small enterprises. This aligns with the objective of facilitating access to finance for MSMEs, as CGTMSE provides collateral-free credit facilities to eligible enterprises.

- *Creating a Supportive Ecosystem*: The project contributes to creating a supportive ecosystem for MSMEs in Punjab by disseminating information about the schemes and promoting collaboration between MSMEs and relevant stakeholders.

Strategy for project implementation/scheme implementation with pre-defined milestone

a) Understanding the problem statement

Our primary survey highlighted the lack of awareness among 35% MSMEs in different districts of Punjab about the various schemes and policies that have been introduced for their benefit. Due to this lack of knowledge, MSMEs are unable to take full advantage of these schemes, hindering their growth and development potential. The data of the surveyed units suggests that the least penetration is on CGTMSE scheme (4.9%), Punjab Industrial and Business Development Policy (3.7%), MSME Procurement (1.9%) and TReDS (1.6%). Other government initiatives like GeM also have limited coverage (17.1%) across the state of Punjab.

The primary survey shows that 46.6% of the MSME respondents lack the knowledge about green and sustainable solutions and methods to adopt green initiatives. About 32% of the MSMEs also showed their concerns about the high cost of implementation of the green technologies or solutions which acts as a hinderance for them.

Moreover, in Punjab, women MSMEs face additional challenges in accessing and availing the scheme benefits. There is a need to bridge this information gap and provide comprehensive education and understanding about the relevant schemes. By addressing this problem through targeted awareness campaigns, the project aims to empower MSMEs with the necessary knowledge and resources to leverage these schemes effectively, ultimately fostering their growth and contributing to the overall development of the region.

b) Proposed project design, feasibility, viability

Project Design
a) Awareness sessions shall be organized across both Central and State schemes for MSMEs, across all districts every quarter, which amounts to 92 sessions per year across the districts. The experts coming in to take the sessions would possess the necessary knowledge and experience to make the industries aware and train the members of each industry in each district of Punjab through the awareness campaigns. Thes experts would essentially be experts from the industry, retired faculty members, stalwarts from the industry, government officials. Regarding the training material, **our team of experts who shall take the session, shall possess well-equipped training material**, including audio-visual resources, to conduct workshops and campaigns. We will utilize these resources to create engaging and interactive sessions that facilitate effective knowledge transfer and engagement with the MSMEs.
b) **MSME Facilitation Centres:** It has been envisaged that there is a need to establish MSME Facilitation centres across districts that shall serve as information centres for the units and provide handholding support to MSMEs in access to finance, marketing, and regulatory compliances. These facilitation centres shall be operated by DIC officials, and each station shall have information screens for content display and awareness generation, computers for assistance in documentation for schemes etc.
c) **Content development** is a crucial aspect of the project. The experts taking awareness sessions shall have specific content created in bilingual language with comprehensive and informative materials tailored as per the audience's needs. These materials will include brochures, presentations, videos,

and online resources, ensuring that the information is easily accessible and understandable for the MSMEs.

d) Women beneficiaries shall be targeted as a part of this programme to help them gain awareness on the existing schemes of the government, steps on availing them, provide any handholding support required for business development etc.

e) Technical sessions shall be organized for multiple topics across the schemes and 12 key sectors of the State, such as ZED, LEAN, TReDS. These sessions could be in the field of waste management, Adoption of ERP solutions, sustainable technologies, impact assessment, profit maximization, circular economy etc.

f) The project aims to target 2500 MSMEs across all 23 districts of Punjab over a course of 5 years. The MSMEs will enrol with the support of an implementation agency which will be a two-member team who will spread awareness about the green rating system and identify the interested MSMEs.

Feasibility

It is imperative in the MSME sector to increase scheme penetration across the state. A proper structured awareness development programme and MSME facilitation centres shall help address this challenge and prove to be extremely beneficial for the MSMEs in Punjab. Moreover, this exercise can also help identify unregistered MSMEs in the state and help them het registered on the Udyam platform.

Viability

Once the project intervention has been rolled out in the state, it shall create a spillover effect across sectors and clusters, wherein the MSMEs who have gained awareness through these sessions/facilitation centres can handhold other units too. Given the project is undertaking a wholesome approach, wherein equal importance is being given to women MSMEs, it makes the project viable in both, short and long run.

c) Approach and Methodology for execution/implementation

To effectively implement the awareness campaigns, the project will use a multifaceted strategy. The following elements will be included in the approach and methodology: -

- *Targeted Approach:* The initiative will concentrate on each district of Punjab, considering the MSME environment, industry sectors, and knowledge gaps that already exist. The project's influence on the attendees will be greater if the campaigns are tailored to the requirements and features of each district.
- *Comprehensive Campaigns:* The awareness campaigns will be created to offer thorough information about the programmes, ensuring that MSMEs are aware of the advantages, requirements for eligibility, and application procedures. The information will be developed in an approachable manner.
- *Collaboration and Partnerships:* The initiative will create partnerships and collaborations with pertinent parties, such as local MSME networks, financial institutions, industry groups, and government organisations. This will guarantee the availability of accurate and current data and encourage support for the projects.
- *Technical Workshops and Sessions*: Technical workshops shall be an important component of the proposed intervention. While awareness sessions are all encompassing and provide an overarching view of the schemes, the technical workshops on financial management, financial literacy, impact assessment, waste management, ERP solutions, sustainable technologies etc. shall prove to be beneficial for the MSMEs. These technical workshops shall also cover components of ZED, LEAN, TReDS, CGTMSEs etc. and 12 focus sectors of the State.

- *Collaboration with Industry Associations:* To help the implementation of the awareness initiatives, industry associations representing various industries might be enlisted. These organisations may be extremely helpful in mobilising MSMEs, setting up workshops for certain industries, and offering sector-specific advice on the programmes. They can also serve as go-betweens for sharing information and gathering member input.
- *One-on-One Consultations:* MSMEs who want in-depth one-on-one consultation sessions must be provided with personalised consultations. These discussions may be carried out by committed project team members, experts conducting the sessions or in conjunction with specialists from the industry. They will assist in addressing certain issues and giving each MSMEs specialised guidance.

MSME Facilitation Centres

Appropriate space in the DIC office shall be identified for these facilitation centres which shall serve as a one-stop for MSME support and redressal. These centres shall be operated by the DIC officials and shall serve a very crucial role in awareness generation as it shall be well equipped with screen for information display (awareness videos, content display, audio etc.) Moreover, these centres shall provide all necessary handholding support to MSMEs in multiple aspects like – regulatory compliances, marketing, finance, awareness etc.

d) Use of ICT/Innovative technology towards project implementation

The training materials (in bilingual) for the awareness sessions shall be available at the MSME Digital Portal, being proposed as a part of MSME Digital Portal being developed as a part of the MSME Database Creation project. The portal shall have a repository of all the resources, scheme-wise that shall serve in handy for the beneficiaries. Moreover, online video tutorials, and other knowledge collaterals (bilingual) shall be utilized as a part of the project.

The MSME facilitation centre shall install information screens/kiosks, audio visual content, across all centres for information dissemination.

Timelines for achievement of project deliverables and verification protocols

The timeline for the completion of the proposed project is *5 years*. One campaign in *every quarter* must be conducted within each district in the State of Punjab.

Awareness Sessions

Per quarter session across all 23 districts of Punjab in a year	92 sessions in a year across 23 districts
Total no. of sessions across 5 years in 23 districts	460 sessions

MSME Facilitation Centres

MSME facilitation centres shall be set up across all 23 districts and operated by DIC officials. Each centre shall have adequate capacity for DIC officials to operate, information screens for information dissemination, computers for providing any support related to scheme enrolment etc. Content shall be developed for the information screens which shall continuously display relevant information.

e) Estimated impact of the project project/scheme/proposal

The potential impacts of the project are as follows:

- The project will lead to a **substantial increase in awareness among MSMEs** regarding various schemes and initiatives, introduced for their benefit. By disseminating accurate and detailed information, more MSMEs will become aware of the opportunities available to them, leading to higher participation and utilization of these schemes. **Special focus shall be given to women MSMEs** to bring them at par with all existing MSMEs and help the avail the benefits of existing schemes.

- Through the campaigns and MSME facilitation centres, MSMEs **will gain a clear understanding of the schemes**. This increased knowledge will enable MSMEs to navigate the application processes more effectively and take full advantage of the schemes' benefits. As a result, the overall utilization of these schemes is expected to rise.

- By providing MSMEs with the necessary knowledge and resources, the **project will empower them to make informed decisions and strategic choices for their businesses**. This empowerment will contribute to the growth and development of MSMEs in Punjab, leading to improved business performance, increased revenue, and job creation.

- The project will contribute to **strengthening the MSME ecosystem in Punjab** by fostering collaboration and engagement among MSMEs, government agencies, and industry associations. This collaboration will create a supportive environment for MSMEs to thrive, leading to enhanced networking opportunities, knowledge sharing, and collective problem-solving.

- The project aims to target **6 lakh+ Udyam registered and existing unregistered MSMEs in Punjab.** This exercise shall also help in identification of unregistered MSMEs in the districts and provide them adequate support for Udyam registration.

- The project will have a long-term impact on **2500 MSMEs** by way improving energy efficiency, reducing the resource utilization, water conservation, adoption of renewable sources of energy, waste management and becoming a part of green supply chain. Adoption of **Green Rating System** would ensure reduction in carbon footprint and emissions which has a long-term impact on the environments and makes the manufacturing processes more sustainable and eco-friendlier.

f) **Project costing and contribution of state government towards it:**

Component	No. of Sessions	Per Session Cost	Tentative Cost (In Cr.)
Awareness/Technical Sessions Cost for 10 major Districts (Amritsar, Jalandhar, Hoshiarpur, Patiala, Ludhiana, Mohali, Fatehgarh Sahib, Bhatinda, Ferozepur, Kapurthala) (Costs to include venue costs, projector hiring, professional charges for experts including boarding & lodging)	Per quarter session across 10 districts of Punjab in a year. (200 sessions in 5 years across 10 districts)	1,00,000	2

Awareness/Technical Sessions Cost for 13 districts (Costs to include venue costs, projector hiring, professional charges for experts including boarding & lodging)	Per quarter session across 13 districts of Punjab in a year. (260 sessions in 5 years across 13 districts.)	50,000	1.3
Setting up of **MSME & GeM Facilitation centres** across all 23 districts of Punjab. • Computers • Chair & desks for the officials who shall be operating the facilitation centres • TV Screens for information dissemination on schemes and other information relevant to MSMEs • Assistance to MSMEs for onboarding on GeM portal • Awareness campaigns for information dissemination about the workshops etc. • Development of schemes specific content for display.		10,00,000	2.3
Branding of the Facilitation Centres with adequate signage/scheme specific branding through hoardings or flexes		50,000	0.11
Total			**5.71**

Budget for implementation agency for Green Certification				
#	Components	No. of resources	Cost per resource (INR Lakh) per year	No. of years	Cost (INR Cr)
1	Cost of implementation agency	2	6	5	0.6

	for Green Certification				
Total					0.6

Total project cost – INR 6.31 Cr

State Government Contribution: Office space provided by the DICs at 23 districts and all the operational expenditure by the State.

g) Plan for strengthening M&E framework pertaining to the project/scheme/proposal.

The project will incorporate a monitoring and evaluation framework to assess the impact and effectiveness of the awareness campaigns. The following strategy will be put into practise in order to enhance the Monitoring and Evaluation (M&E) framework related to the awareness campaigns for MSMEs in Punjab:

Activity	Q1	Q2	Q3	Q4
Quarterly Review of the Sessions				
Assessment of the MIS systems available for each department to track scheme enrolment				

Similarly for all the years, this process shall be followed

- Quarterly reviewing of the training sessions by the GM DIC's of their respective districts. The GM-DIC can report on what kind of visible changes have occurred post the training sessions in terms of increased enrolment towards the schemes like TReDS, Champion scheme, CGTMSE and the Punjab Industrial Policy. The information gathered should include a range of topics, including target audience comments, MSMEs' knowledge gains through awareness campaigns, and the use of the programme.
- The **MIS systems for each scheme, available with the department** shall be monitored to assess scheme enrolment once every 2 quarter, a district-wise assessment of the same shall be undertaken to gauge an increase/decrease in enrolment across champion schemes and other topics covered under the awareness sessions.
- There must be a proper feedback channel to collect comments and ideas from MSMEs that have taken part in the awareness sessions. This can include online survey questionnaires. Moreover, the MSMEs should inform about the sessions that they want should be organized in their districts/sectors.

6.8. Encouraging Women-Owned Businesses in Punjab: Leveraging Technology, Market Participation, and Financial Inclusion for SHG Growth.

Project Summary:

The proposed project is designed to empower women owned business in Punjab, both across rural and urban areas with an objective to onboard, assess, train, and support the existing women businesses in the state. Moreover, the project also aims to onboard women businesses on existing e-commerce platforms to help them create a market base, establish a demand supply chain, and give their products a wider market access. A team of professionals shall be deployed as a part of the project to provide professionals services in branding, cataloguing, packaging of products etc.

During the extensive stakeholder consultations conducted across the 23 districts in Punjab, the women SHGs and women MSMEs highlighted the need for handholding support to roll-out their business ideas, in accessing credit for their projects and increasing their market access.

Keeping these asks in mind, the proposed project aims to empower the existing women businesses in the state, spread across rural and urban areas in Punjab. The two major issues that have been addressed in the project: -

- The project shall help overcome the financial challenges faced by women SHGs and women MSMEs in the state.
- Secondly, it shall seek to address the issue of women and women-owned businesses being overlooked or underserved in the market.

The project aims to provide a thorough curriculum to assist women-owned enterprises, through professional support in developing their abilities and raising their revenues, with a primary focus on promoting financial inclusion and the expansion of women-led businesses in Punjab.

Existing Competencies for the specific theme

Women owned micro-enterprises form a large part of the MSME ecosystem, with Punjab showcasing 87,039 women MSMEs in the region, registered on the Udyam Portal since 2020. Through the primary survey conducted on 5016 MSMEs and stakeholder consultations, it was inferred that there are far fewer women-owned MSMEs i.e. 7% (out of 5016 MSMEs) than male-owned ones across the state.

Introduction of this financial inclusion project for women MSMEs and business in Punjab shall prove to be a successful initiative because of the below mentioned reasons: -

- **Women's Entrepreneurship:** Punjab has witnessed a rise in women entrepreneurs across various sectors, including textiles, handicrafts, food processing, and services. These women often bring innovative ideas, creativity, and resilience to their businesses, making them valuable contributors to the local economy.

- **Strong Work Ethic:** Women entrepreneurs in Punjab are known for their dedication and commitment to their businesses. Many women-run MSMEs in the state have a strong work ethic, which can be leveraged through financial inclusion programs to enhance their business performance.

- **Networking and Collaboration:** Many women led MSMEs in Punjab actively engage in networking and collaboration, which can be further supported through financial inclusion initiatives. Facilitating connections with other entrepreneurs, e-market places, industry associations, and mentors can help them expand their market reach and learn from each other.

- **Need for Skill Development:** The women MSMEs and SHGs have expressed the need to provide training and capacity-building opportunities tailored to the needs of women MSMEs in Punjab which can further enhance their competencies. This could include workshops on financial management, digital skills, marketing strategies, and business planning.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

The proposed project aligns with **DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes of the RAMP Programme.**

The project shall serve a larger aim of: -
- Improved engagement of the private sector
- Broadening offerings to selected service sectors.
- Enhancing MSME connects with schemes (through marketing and branding of schemes)
- Increasing market access of women owned businesses.
- Improved supplier linkages

Strategy for project implementation/scheme implementation with pre-defined milestone

a. Understanding the problem statement

The proposed project works towards identifying women businesses, SHGs, MSMEs in rural and urban areas of Punjab. The project shall aim at addressing the teething issues women MSMEs face across the state in market access, financial support, product packaging, handholding support in accessing e-marketplaces etc. which may or may not be district specific. The stakeholder consultations undertaken with women MSMEs for the preparation of SIP highlighted the issues faced particularly by women businesses, which can be categorized as below.

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┌─────────────────────────┐
│   Financial Inclusion   │
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            │
            ▼
┌─────────────────────────┐
│    Capacity Building    │
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            │
            ▼
┌─────────────────────────┐
│     Market Linkages     │
└─────────────────────────┘
            │
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┌─────────────────────────┐
│       Technology        │
└─────────────────────────┘
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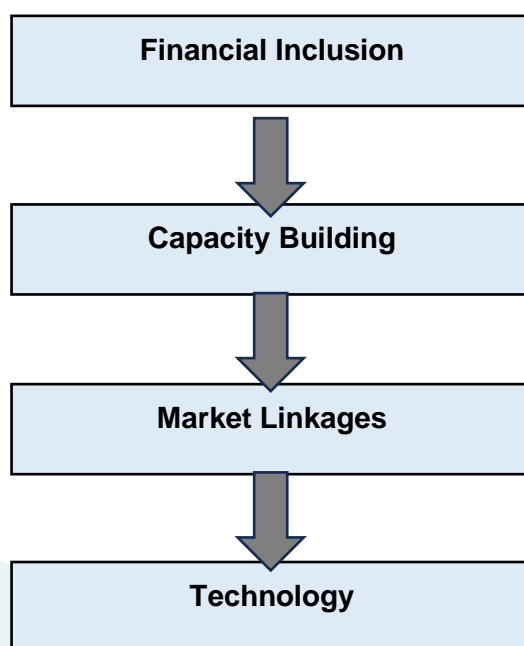
- **Finance** – Women MSMEs commonly face credit-related issues. Rural women, in particular, encounter difficulties in obtaining financial assistance due to factors like the absence of collateral, extensive paperwork, and limited financial literacy. Other challenges include delays in accessing credit, insufficient funds for purchasing raw materials, lack of accounting skills, and difficulty maintaining proper financial records. The proposed project aims to address these challenges by focusing on creating a credible market base and provide necessary handholding support in financial management.

- **Capacity Building** – Women MSMEs in Amritsar and Tarn Taran, during the consultation sessions highlighted the gaps in fundamental training with respect to essentials of business aspects. They shared their struggles with product pricing, market competition, creating attractive packaging and branding, utilizing e-commerce platforms for sourcing materials and selling goods, reducing manufacturing costs, and understanding institutional, financial, and legal compliance. Addressing these training gaps would empower women businesses to enhance their business operations, compete effectively, and ensure compliance with regulations.

- **Market Linkages –** The MSMEs during the survey highlighted that 54% of MSMEs struggle to make their products more marketable and locate appropriate markets. These difficulties arise from lack of time, money, and trained workers required to increase exposure and produce high-quality leads. Due to weak market connections, women led MSMEs, struggle to realise their full potential. Their ability to maximise their company potential and growth is hampered by the limited access to markets.

- **Technology -** Adopting innovative technology and educating staff on these technical advancements is not only challenging but also expensive, particularly for manufacturing organisations where the reach extends beyond software and e-commerce to include production units.

Hence, the suggested program intervention focuses on providing new income opportunities, digitization, upskilling, market linkages and a support system through appropriate professional handholding services. The goal is to identify women entrepreneurs and equip them with the necessary tools, knowledge, and network to succeed in their businesses and increase their market access.

b. Proposed project design, feasibility, viability

Project Design
A group of 10 professionals shall be hired, as a part of this project who shall be experts in the field of packaging, branding, cataloguing, and onboarding of businesses on existing e-marketplaces in the country. As a part of this project, onboarding shall be done across 6 e-commerce platforms, wherein 3 shall be private platforms and 3 shall be government platforms.
Further, the project shall have the following components: -
- **Assistance in Onboarding women entrepreneurs on existing e-commerce platforms in the country:** An assessment of the existing women entrepreneurs shall be undertaken across the districts by the GM DIC office in order to identify the interested MSMEs who wish to increase their market base and access these platforms. Post which, tie-ups shall be done at the department level to identify the key platforms for onboarding and the set of professionals shall provide all the handholding support to these women entrepreneurs to register and broadcast their products on the platform.

- **Capacity Building –** The existing e-commerce platforms in the country provide capacity building support – account management support, personalized handholding support for initial months on the platform, leveraging market initiatives for their growth etc. The identified entrepreneurs shall be supported in availing these capacity building services.

- **Dedicated Resource Team for Marketing & Promotion of Products-** A dedicated team of **10 people** shall be deployed at the headquarters that shall help the women entrepreneurs in the state in cataloguing, photography, branding and packaging of their products to be onboarded on the e-commerce platform.

  The scope of work of the deployed team members shall encompass the following:
- Support the women entrepreneurs end-to-end in onboarding on minimum of 6 e-commerce platforms, both government (3) and private (3).
- Handhold the entrepreneurs/women businesses is designing of the catalogues, photoshoot of the products and packaging as per the market standards and as per the requirement of the platform.
- Support the women entrepreneurs in getting access to finance through CGTMSE scheme. Handholding support in documentation, paperwork required to avail loan/financial assistance.
- Support the headquarters and DIC offices in organizing awareness campaigns across districts for financial inclusion.

Feasibility

The state of Punjab houses many women entrepreneurs, both in rural and urban areas. Most women entrepreneurs are seeking opportunities to expand their market base and better their business skills. This project shall serve as a platform for their upliftment and given that it is open to all women entrepreneurs, across the state, it will generate opportunities and provide necessary exposure to them.

Viability

Providing necessary handholding support to women to develop their business skills and increase market access, this project shall pave a pathway for women entrepreneurs in the state of Punjab to grow and access the existing e-marketplaces for their benefit for years to come.

 c. Approach and Methodology for execution/implementation

The proposed project has set the ambitious goal of reaching out to all willing women entrepreneurs in the state of Punjab. These women could be independent entrepreneurs, women of the Self-Help Groups and women MSMEs, spread across rural and urban areas of the state.

Below mentioned shall be the approach and methodology for the roll-out of the project.

Identification of women entrepreneurs across districts by District Officials & BLEOs & SIPOs

Onboarding on identified e-commerce platforms

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                    ┌─────────────────────────────────┐
                    │  Onboarding of professionals for  │
                    │ branding, cataloguing, packaging etc. │
                    └─────────────────────────────────┘
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                                    ▼
                    ┌─────────────────────────────────┐
                    │  Capacity building & Handholding  │
                    │ support to women for product listing │
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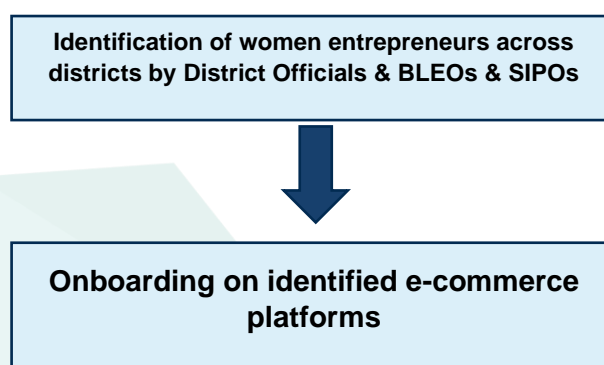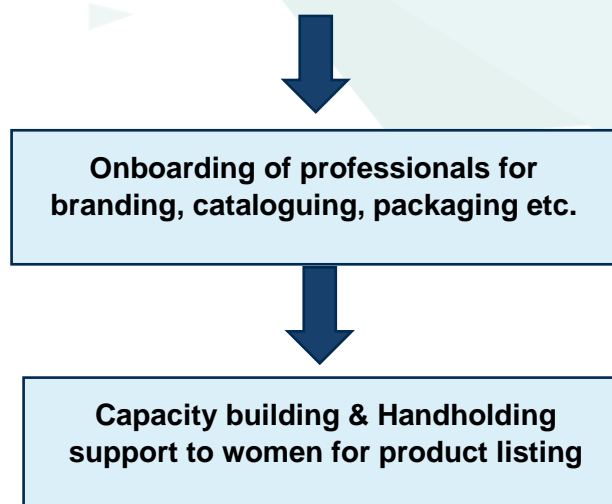
a) **Identification of women entrepreneurs:** Women entrepreneurs across each district shall be identified by GM DIC. The BLEOs and SIPOs shall assist the district committee along with other officers like CDPOs with a special focus on women run businesses who wish to be onboarded on e-commerce platforms to market their products.

b) **Onboarding on e-commerce platforms:** The Department of Industries and Commerce, Punjab shall identify the women MSMEs in onboarding across minimum of 6 identified e-commerce platforms. 3 of these e-commerce platforms shall be run by private players, while the other 3 shall be government owned.

c) **Market Linkage:** The Department will facilitate in organizing an annual 3-day HAAT/Trade Fairs/Melas for the women entrepreneurs. One such event will be organized in Chandigarh and in 10 other districts of the State. The districts will be decided by the department. This will give the women entrepreneurs a platform to exhibit, display and sell their products.

d) **Product Promotion, Display & Sale:** The Department shall facilitate setting up of kiosks, centres across a prominent location at the districts. These locations could be identified in - DC office/SRLM Office/Rural Development Department office/or any other prominent place that has a considerable footfall. These kiosks shall serve as a stop for display of products made by women SHGs, ODOP products, products developed by artisans of the district as well as sale of products. This kiosk shall be given to a private player on a lease-model for operations.

e) **Onboarding of professionals for Design, branding, cataloguing, packaging & filing for Geographical Indication/trademark and awareness support:** A pool of 10 experts in the field of designing, branding, marketing, cataloguing, packaging, and filing for geographical indication/trademark of products shall be onboarded by the department who shall provide handholding and capacity building support to women entrepreneurs in the state. The state shall financially support the women entrepreneurs seeking these services and eventually, a pay-per-service model shall be introduced for women businesses to avail the professional services. This pool of professionals shall also organize awareness sessions, once per quarter to identify and encourage women entrepreneurs to onboard on e-commerce platforms and showcase their products.

The pool of experts shall have a fixed remuneration (explained in the costing section) with a set KPIs defined for this pool of professionals.

f) **Capacity building & Handholding support to women for product listing:** Necessary handholding support shall be provided to women entrepreneurs to list their products on e-commerce platform by the onboarded professionals and support staff of the identified e-commerce platform.

g) **Dovetailing of Government of India Schemes for financial inclusion:** Through this project intervention, the department officials will assist the eligible women entrepreneurs needing financial assistance in applying and availing benefits across various schemes of GoI such as Schemes run by National Handloom Development Corporation, PM Vishwakarma Scheme etc. Under the Vishwakarma scheme the following benefits would be provided:
   a. Basic training of 5-7 days and advanced training of 15 days or more, with a stipend of Rs. 500 per day
   b. A toolkit incentive of up to Rs. 15,000 in the form of e-vouchers at the beginning of Basic Skill Training
   c. Collateral free 'Enterprise Development Loans' of up to Rs. 3 lakh with tenures up to 30 months, at a concessional rate of interest fixed at 5%, with Government of India subvention to the extent of 8%
   d. Incentive for Digital Transaction i.e. amount of Re. 1 per digital transaction, upto maximum 100 transactions monthly will be credited to the beneficiary's account for each digital pay-out or receipt

d. Use of ICT/Innovative technology towards project implementation

The project aims to use the digital platforms of the existing e-commerce platforms the department shall collaborate with, both private and government owned. Further, the MSME digital platform being designed as a part of the RAMP interventions shall be used to track the number of women entrepreneurs currently listed on the e-commerce platforms, products listed, revenue generated etc.

e. Timelines for achievement of project deliverables

Components	M1	M2	M3	M4	M5	M6	M7-M12	Y2	Y3	Y4	Y5
Onboarding of professionals	▓	▓									
Identification of women entrepreneurs across districts	▓	▓	▓	▓							
Awareness sessions across districts (once a quarter)		▓	▓	▓	▓			▓	▓	▓	▓
Capacity building of women entrepreneurs for product listing					▓	▓	▓				
Cataloguing of the products							▓	▓	▓	▓	▓

Onboarding of products on government and private e-commerce portals												
Roll out across districts & e-commerce platforms												

Estimated impact of the project

The project aims to improve and provide support for women-owned businesses, across rural and urban areas in districts of Punjab by providing them with adequate capacity building, handholding support and helping them list their products on e-commerce platforms. It also seeks to showcase these businesses as valuable assets for potential market players and provide a platform for growth to women entrepreneurs.

Through the database fetched from the government departments, following are the number of existing women entrepreneurs (SHGs and women MSMEs) across the state: -

S.No.	District	Total No. of SHGs	Total no. of Women MSMEs in Udyam since Inception
1	Amritsar	1201	10385
2	Barnala	727	2375
3	Bathinda	3095	5367
4	Faridkot	843	2744
5	Fatehgarh Sahib	1347	2188
6	Fazilka	1564	2139
7	Ferozepur	3156	3116
8	Gurdaspur	3985	4598
9	Hoshiarpur	1022	5451
10	Jalandhar	1092	13268
11	Kapurthala	656	4335
12	Ludhiana	1014	19602
13	Malerkotla	33	677
14	Mansa	1551	2090
15	Moga	1583	4348
16	Pathankot	2676	1620
17	Patiala	1579	9291
18	Rupnagar	5346	2089
19	Sangrur	1297	4952
20	SAS Nagar	3634	10122
21	Shahid Bhagat Singh Nagar	1218	2693
22	Sri Muktsar Sahib	1210	2660
23	Taran Tarn	3467	2894
	Total	**43296**	**119022**

While this number only captures SHGs and women MSMEs across the state, there exist multiple independent women entrepreneurs who shall also be a part of this project.

All in all, the proposed project shall serve a larger aim of elevating women-owned businesses by increasing their productivity, boosting their income through e-commerce platforms, and facilitating other market linkages over time through necessary technical and business support.

A total of minimum **5000 women entrepreneurs** shall be impacted in this project.

Project costing

Components	Per Unit Cost	Total Tentative Cost (In Cr.)
Onboarding of 10 professionals for branding, cataloguing, onboarding, packaging & marketing support across 6 identified e-commerce platforms.	INR 30,000 per month	1.80
Mahila Haat/ Trade Fairs/ Melas (Total 11 in a year)	Chandigarh (1) – 25,00,000 Within Districts (10) – 10,00,000	6.25
Setting up of district-wise kiosks for display and sale	15,00,000	3.45
State MSME awards for women entrepreneurs and SHGs	10 lakh per year	0.50
Total Tentative Cost of the Project – 12 Cr.		

- KPIs include:
  - 25 women MSMEs to be onboarded per quarter per professional across 3 govt. e-commerce and 3 private e-commerce platforms.
  - 1000 entrepreneurs shall be impacted per professional per year.

The overall budget for the proposed project is – 12 Cr.

State Government Contribution: INR 12.5 Cr

Digital Marketing Support as per the Punjab Industrial and Business Development Policy 2022 - Reimbursement of 50% of the cost of on boarding on e-commerce Platform, developed by NSIC, or other similar Platform approved by State Govt/GOI, subject to maximum INR 25,000 per unit to first 1000 units during the validity period of Policy. **For private e-commerce platforms, up to INR 5000 shall be reimbursed as registration/onboarding fee by the government.**

Plan for strengthening M&E framework pertaining to the project/scheme/proposal.

The project shall be monitored through the MSME Digital portal proposed as a part of the MSME Database creation project and across the below mentioned categories to gauge the project's performance.

Components	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Assessment to be conducted at a hyperlocal, intra-district, inter-district and inter-state level for total women entrepreneurs onboarded on e-commerce platforms.			■			■			■			■
Review with relevant government departments on the roll out of project			■			■			■			■
Revenue Generation Assessment			■			■			■			■

*The similar monitoring mechanism shall be followed till the conclusion of the project

6.9. Organize exposure visits for MSME units in Punjab to boost MSME performance, increase production efficiency and promote outreach & awareness.

Project Summary:

The objective of this project is to provide industry specific knowledge and exposure to the MSMEs for their respective sector. Given that the primary survey and focussed group discussions with DIC officials highlighted the need for organizing exposure visits and buyer-seller meets for the MSME units, the intervention was envisaged with a focus on providing clear understanding and information to the MSME units regarding the development in their sector and introducing them to best in class infrastructure, upgradation of technology, creation of anchor buyer linkages at national and international level and learn the latest techniques of production. Through these visits, State aims to empower MSMEs with the knowledge and networks that are necessary to foster their growth with a focus on production efficiency, reducing the cost of production through use of latest technologies, foster market linkages and witness overall sector development.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

The proposed project aligns with **DLI 3- Enhancing the effectiveness of Firm Capabilities Schemes**. This project comprises of organising focussed visits to best-in-class R&D facilities, well performing industries/clusters/regions/countries, organizing buyer-seller meet for MSMEs in Punjab while aligning with the RAMP objectives in the following ways:

- *Promoting Growth and Development:* The project aims to empower MSMEs by providing them with knowledge and resources that will accelerate their growth. These visits to R&D centres and tool rooms will give the MSME owners an opportunity to implement the technology within their industry which will result in better turnaround time, enhance productivity, and improve overall quality of products.
- *Expanding Access to Markets:* MSMEs will have an opportunity to build their network and expand their market access during the exposure visits and buyer-seller meets. This will help them in creating market linkages, widen their market base and foster independent partnerships with market players in their niche areas.
- *Facilitating Firm Competitiveness:* This scheme will allow MSMEs to adopt the latest technology for faster, better, and cost-effective production of their goods. This shall allow the units to enhance the competitiveness of indigenously produced products and come on a common platform with industries in other regions or countries.
- *Creating a Supportive Ecosystem*: The project contributes to creating a supportive ecosystem for MSMEs in Punjab by disseminating information about R&D, technology, new markets, market, and export opportunities.

Strategy for project implementation/scheme implementation with pre-defined milestone

a. Understanding the problem statement

During the primary survey it was inferred that the MSMEs have limited awareness (57%) of the available best-in-class sustainable technologies in their sector, existing best practices, available market access options etc. Close to 34% MSME units during the primary survey have expressed their interest in exposure visits and buyer seller meets.

A lot of MSME units do not possess the latest technology or have market linkages and this is due to the lack of awareness about facilities such as R&D centres, tool rooms, academic institutions, industry meetups, expos, and trades. Besides lacking awareness, there is also an innate challenge of access to finance that is faced by the MSMEs. Moreover, it was expressed by the units and officials from the department that there exists a need to bridge the knowledge gap of MSMEs as much as possible through

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state interventions. Considering this gap, many MSMEs lose the opportunity to make productive alliances and get access to the latest technology and information on latest research undertaken for their development. The focussed group discussions with GM DICs and Industry associations in Muktsar, Faridkot, Kapurthala, Pathankot and Jalandhar expressed the need to organize exposure visits and buyer-seller meets regionally and domestically to showcase the products of their units in the state. They highlighted that there is a need for their units to witness the existing infrastructure across industries, domestically and internationally in better performing states and other countries. This shall help them in widening their horizons and enhancing their market existence.

Existing Provisions for Exposure Visits by Central Government

The **central scheme on providing market assistance to MSMEs** provides financial support to MSMEs through National Small Industries Corporation (NSIC) and enhance competitiveness and marketability of their products. However, the support is limited to Organizing International Technology Exhibitions in Foreign Countries by NSIC and participation in International Exhibitions/Trade Fairs for one person, per enterprise.

Moreover, the **SFURTI scheme** provides support in exposure visits to Existing artisans from traditional industries in sectors such as Handicraft, Textile, Agro-Processing, Bamboo, Honey, Coir, Khadi, etc. While these are landmark schemes of the Government of India for MSME, Punjab, through this project aims to widen the opportunities for MSME units in the state and not limit them to individuals from certain specified sectors. Hence, exposure visits and buyer-seller meet have been proposed across the top performing and sunrise sectors in the state.

b. Proposed project design, concept, feasibility, viability

The project aims to target **500 MSMEs** across top performing/thrust sectors. MSMEs shall be identified across these mentioned 12 sectors who are undergoing capacity building intervention under the RAMP program. The list of sectors is mentioned below in the table (Table 1). The MSMEs shall be shortlisted by the Department officials and will go on exposure visits to various R&D centres across India, tool rooms and academic institutions for technology upgradation and exchange of the knowhow Pan India. International exposure visits will also be organized to various technology and industry forward countries like USA and Germany as a part of this project. Besides these visits, the project also aims to organise Buyer- Seller Meets and networking events so that MSMEs can create a web of partnerships and networks for their marketing needs and strengthen buyer-seller relationships. These market linkages can have a beneficial spillover effect onto other industries and sectors across Punjab. For each of the mentioned sectors, the concerned MSME units along with the identified sector expert, industry champion and government official shall go for the international, regional, and domestic visit.
As per the DGCIS data 2022-23, the top export performing sectors have been identified and MSMEs will be selected across these sectors:

Table 1:

Sl. No	Sector	Total Number of MSMEs
1	Power/ Machine Tools	40
2	Hand Tools	40
3	Sports Goods	40
4	Food processing	40
5	Bicycle	40

6	Textile	40
7	Agriculture Implements	50
8	Pharma	40
9	Engineering Goods	40
10	Auto & Auto Components	40
11	ESDM (emerging sector)	40
12	Potential / sunrise sector for the State of Punjab	50
	Total	**500**

A total of 500 MSMEs shall be covered as a part of this proposed project.

Year	Target Number of MSMEs	Target No. of Women MSMEs
Year 1	--	--
Year 2	125	35
Year 3	125	35
Year 4	125	40
Year 5	125	40
Total	**500**	**150**

c. Approach and Methodology for execution/implementation

The activities encompassing the project shall be further categorized into the following: -

International Exposure Visits: The visits shall help the MSMEs make an aspirational, year wise action plan for their industries as they would get an opportunity to explore and learn about the advanced technology from the leading experts, across the world, in their sector and make connections that could help them bring technology and best practices to India in their industry. The exposure visits shall be focussed on export facilitation, increasing market access & exposing MSMEs to existing best-in-class services outside the country. *The aim is to have at 2 international visits per sector per year which will include 4-5 people from a particular sector i.e., a total of 48 visits in two years.*

Domestic and Regional Exposure Visits: These visits will include trips to R&D centres, tool rooms and academic institutions leading in technology and R&D. The goal of this is to address the issues that the industries are facing by allowing them to witness the latest technology and understand efficient production and manufacturing practices for overall development.
There would be 10 regional and domestic exposure visits per sector in a year for every listed specific sector i.e., a total of 360 visits in three years.

Buyer- Seller Meets in the state: These buyer-seller meets are an excellent way to get to know the buyers & suppliers in their sector. MSME owners will be able to do the following through these meet ups and expos:
- Showcase their products & business practices.
- Network with industry members & foster partnerships

- Generate new business leads.
- Attract and convert customers.
- *There will be 1 buyer-seller meets per year for all industries in the state to participate.*

Sector-Wise MSME Targets for each component mentioned above for each year.

Sector	Year 1	Year 2	Year 3	Year 4	Year 5
Machine/ Power Tool	0	10	10	10	10
Hand Tools	0	10	10	10	10
Sports Goods	0	10	10	10	10
Food processing	0	10	10	10	10
Bicycle	0	10	10	10	10
Textile	0	10	10	10	10
Agriculture Implements	0	15	15	15	15
Pharma	0	10	10	10	10
Engineering Goods	0	10	10	10	10
Auto & Auto Components	0	10	10	10	10
ESDM (emerging sector)	0	10	10	10	10
Potential / sunrise sector for the State of Punjab	0	10	10	10	10
Total each year	**--**	**125**	**125**	**125**	**125**
Total MSME units over 5 years	**500**				
Total women MSME units out of 500	**150**				

30% of the total MSMEs shall be women MSMEs

This is a basic outline and sector-wise division for achieving the goal of spreading industry-wise awareness and addressing the challenges faced by MSMEs among the existing and sunrise sectors in Punjab.

International exposure visits have gained a lot of importance in the recent times as they allow the industries to expand their creative horizons and give them an opportunity to learn and improve their performance parameters. These exposure visits enable them to think through and adopt efficient technologies, understand different existing cultures, profiles of the engaged human resources and explore opportunities to maximize their productivity. A brief of international exposure visits for the industries mentioned above are outlined as below: -

International Exposure Visit Mapping vis à vis the countries

The proposed countries have been chosen on the basis the fact that these amongst the top importing countries in their respective product/industry/sector.

Industry	Countries
Machine/Power Tool	Germany, Spain and USA
Hand Tools	USA, UK, Germany and France
Sports Goods	UK, USA, Australia and Germany
Food processing	Iran, Saudi Arabia and USA

Bicycle	USA, Germany and Netherlands
Textile	Bangladesh, Turkey and South Korea
Agriculture Implements	USA, France and Germany
Pharma	USA, UK and South Africa
Engineering Goods	Thailand, USA and UAE
Auto & Auto Components	USA and Germany
ESDM (emerging sector)	Korea, Malaysia, and USA
Potential / sunrise sector for the State of Punjab	Country to be identified later

To achieve the defined targets, the agency onboarded in the proposed intervention of Capacity Building of MSMEs under RAMP program shall be leading the execution of this project, across all aspects. Their defined role in this intervention will include:

1. Coordinating with various government departments for logistics support in exposure visits, both domestic and international and buyer-seller meets.
2. Establish connections with embassies, state governments, regional bodies, and relevant agencies where exposure visits must be organized.
3. Creation of a master database of existing best practices regionally and internationally. Updating and researching about various R&D centres and tool rooms for identified and shortlisted industries and sectors.
4. Organising the buyer- seller meets and expos to provide a platform for MSMEs in Punjab, increase market reach of sectors and promote individual partnerships.

d. Use of ICT/Innovative technology towards project implementation

The details of the project shall be available at the MSME Digital Portal, which is being developed as a part of the MSME database creation project for RAMP Programme monitoring. The information provided will include:

1. Number of international exposure visits conducted so far.
   - Name of the countries the MSME units visits vis-à-vis the sector.
2. Number of domestic and regional visits
   - Name of the R&D centres, tools rooms or institutes visited.
   - Outcomes of the visits and key takeaways.
3. Number of buyer-seller meet ups organized as a part of the programme.
   - Total number of events organized, sector-wise so far.
   - Number of attendees – buyers, sellers, and visitors
   - Details of the upcoming events and registration links for the same

*This above list is not exhaustive, and more information shall be added as per the requirement.

e. Timelines for achievement of project deliverables and verification protocols
Given below are the tentative broad timeline for the project, basis the requirement and discussion with the relevant authorities, more granular details of timelines will be worked out for the project.
The timeline for the completion of the proposed project is *5 years*. There are 3 focus areas of the project whose timelines have been distributed over a span of 5 years.

Components	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Year 1												

Regional and domestic exposure visits	▨	▨	▨	▨	▨	▨		▨	▨	▨	▨	▨
Technical Workshops & Conferences	▨	▨	▨	▨		▨	▨	▨	▨	▨		
Annual Buyer-Seller meet						▨						
Year 2 and Year 3	Same to followed for year 2 and year 3											
Year 4 and Year 5												
International exposure visits	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	

International visits – 24 per year (48 in two years)
Regional Domestic Visits – 10 per sector per year (360 in three years)
Technical workshops & conference – 10 per year
Buyer-seller meets – 1 per year.

f. Estimated impact of the project project/scheme/proposal

The potential impact of the project are as follows:

- The project will lead to a **substantial increase in awareness among MSMEs** with regards to the existence of best-in-class practices available for their sector regionally and internationally. By disseminating accurate and detailed information, more MSMEs will become aware of the opportunities available to them, leading to higher participation and utilization of numerous opportunities.

- By providing MSMEs with the necessary knowledge and resources, the **project will empower them to make informed decisions and strategic choices for their businesses**. This empowerment will contribute to the growth and development of MSMEs in Punjab, leading to improved business performance, increased revenue, and job creation.

- The project will contribute to **strengthening the MSME ecosystem in Punjab** by fostering collaboration and engagement among MSMEs, government agencies, and industry associations. This collaboration will create a supportive environment for MSMEs to thrive, leading to enhanced networking opportunities, knowledge sharing, and collective problem-solving.

- The MSME sector in the state may witness a technological **shift to green technology** among MSMEs through exposure visits as it will be a beneficial investment for them. The issues of power cuts and complaints from pollution control board will be reduced and MSMEs will be given subsidies and benefits for using green technology. The MSMEs shall also witness an increase in export production, better technological adoption, market access and cost reduction in their production cycles.

g. Project costing and contribution of state government towards it

The costing would include the following parameters: -

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Component	Frequency per year	No. of years	Per unit cost	Tentative Cost for 5 years (in cr.)
International Visits • max 5 individuals in one group • Per person cost – INR 2,00,000	24	2	10,00,000	4.8
Domestic and Regional Visits • max 10 individuals in one group • Per person cost INR 30,000	120	3	3,00,000	10.8
	Total			**15.6 Cr.**

State Government contribution: INR 15 Cr

Marketing Support under Punjab Industrial and Business Development Policy 2022

Assistance to MSME for showcasing their products at local, national, and international event:

(a) @50% of total rent limiting to ₹5 lakhs for participation in International Trade Fairs abroad

(b) @25% of total rent limiting to ₹3 lakhs for Domestic Trade Fairs and Exhibitions.

(c) Nil for Pavilion at Progressive Punjab Events and Conferences

*Cost of organizing annual buyer and seller meet has been considered in another proposed intervention under RAMP - 'Development of a MSME wing at the Department of Industries and Commerce, Punjab', as a flagship event of department.

Central Government's Provision for Buyer-Seller Meets

Under the **Marketing Assistance Scheme for MSMEs by the Central Government**, Buyers-Sellers Meets are organized to bring bulk buyers / Government departments and micro, small & medium enterprises together at one platform. Bulk and departmental buyers such as the Railways, Defence, Communication departments and large companies are invited to participate in buyer-seller meets to bring them closer to the MSMEs for enhancing their marketing competitiveness. These programmes are aimed at vendor developments from micro, small & medium enterprises for the bulk manufactures. Participation in these programmes enables MSMEs to know the requirements of bulk buyers on the one hand and help the bulk buyers to know the capabilities of MSMEs for their purchases. These Buyers-Seller Meets may be organized in consultation with the concerned stakeholders, including industry associations and other agencies involved in industrial development, and the calendar for these events may be finalized well in advance and publicized widely.

The scale of assistance provided as a part of this scheme is as under: -

- No subsidy would be available to General Category entrepreneurs participating in such meets.

However, the entrepreneurs belonging to North-East/women/SC/ST category, would be provided space at subsidized rates for participation in Buyer-Seller Meets as per the rates mentioned hereunder: -

- Micro Enterprises: 95%
- Small Enterprises: 85%
- Medium Enterprises: 50%

Up to 30% of the total area in such Buyer-Seller Meets may be allocated for the entrepreneurs belonging to the Special Category i.e., Entrepreneurs belonging to NE Region/ Women / SC/ST category, keeping in mind the instructions and guidelines issued in this regard from time to time. The budget for organizing the Buyer-Seller Meet would depend upon the various components of the expenditure, i.e., space rental, interior decoration, advertisement, printing material, transportation etc.

However, the net budgetary support for the Buyer-Seller Meet would be subject to the following limits: -

- *Rs. 5 lakhs in case of the meet is held in 'A' class cities.*
- *Rs. 3 lakhs in case of the meet is held in 'B' class cities.*
- *Rs. 2 lakhs in case of the meet is held in 'C' class cities.*
- *Rs. 1 lakh in case of the meet is held in rural areas.*

h. Plan for strengthening M&E framework pertaining to the project/scheme/proposal.

The project shall be monitored through the MSME Digital Portal being developed, as a part of the MSME Database creation project for RAMP Programme monitoring in the state. The monitoring process followed shall be similar to as explained in section (d). The focus shall be on the outcomes and objectives of each activity head in order to incorporate improvements in the process and develop stronger, more comprehensive plans for roll-out.

6.10. Digital Transformation of MSME Units

Project Summary:

A project to improve the efficiency of the manufacturing process, increase market access and reduce time to market for MSMEs of Punjab by implementation of Enterprise Resource Planning (ERP) solution. Punjab aspires to become an industrial hub by way of implementing Industry 4.0, which conceptualises rapid change in technology and processes due to increasing interconnectivity and smart automation. However, before MSMEs can plan to graduate to Industry 4.0, it is imperative to bring in the pre-requisite process improvements and technology enablement in the business processes and resource planning.

The primary survey conducted on 5016 MSMEs shows that currently, only about 4% of the units have adopted digital transformation strategies such as ERP solution, Systems Applications and Products (SAP), cloud computing and Information and Communications Technology (ICT) tools, however, 27% of the MSMEs plan adopt new technology and innovative methods in the next 5 years to drive their growth. The broad challenges identified behind the low levels of adoption of digital solution are primarily lack of awareness, limited knowledge of choice of solution to be adopted and benefits of adopting the solution, and secondly, high costs of adopting the solution.

To address the challenges identified and enable digital transformation, the proposed project plans to implement ERP solution for 2,000 MSMEs over a period of 5 years.

Existing Competencies for the specific theme:

Out of the survey of 5016 MSMEs, only 0.5% have reported about adoption of ERP, SAP, ICT and cloud solutions. MSMEs in the manufacturing of 'auto components' and 'bicycle and bicycle parts' have shown highest levels of adoption of digital solutions. MSMEs in sectors such as 'agriculture implements', 'electrical goods' and 'hand tools' require assistance and have shown willingness to adopt digital solutions.

Basic modules of ERP such as Human Resource, Payroll, Leave Management and Accounting may still be found in the MSMEs however advanced modules for Sales, Operations, Quality, Purchase, Logistics and Product Design are not commonly present, which are required for the growth, the MSMEs are aspiring for.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives: The project 'Digital Transformation of MSMEs in Punjab' is aligned with RAMP objectives as the proposed intervention through the project identifies technology gaps and constraints to upgrading technology, i.e. (i) technologies for general business functions; (ii) sector specific technologies for production, (iii) adoption of digital technologies and use of digital platforms. Along with gap identification, the project supports MSMEs in the adoption and implementation of the digital solutions to improve business and manufacturing process, maintaining quality standards and help in decision making to make MSMEs more efficient, productive, competitive and profitable in the global market.

This intervention aligns with the principles of **DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes and Result Area 2: Support to Firm Capabilities and Access to Markets.**

Strategy for project implementation/scheme implementation with pre-defined milestone

Understanding the problem statement

The survey shows that the MSMEs are willing and are keen to adopt new technology and digitalisation solutions, however, due to the lack of awareness about the solution and knowledge about the benefits of adopting the solutions, pose as a major reason behind low levels of digitalisation. The survey also shows that technology adoption for 12% MSME respondents resonate with increased costs.

Proposed project design, concept, feasibility, viability:
Project design and concept:
The project will cover 2,000 ZED certified MSMEs. There is 20+ basic modules which have been identified for MSMES in the manufacturing sector which can be implemented in phase-wise manner depending on the maturity level of the each MSME. As the problem statement for each MSME is different, their requirement of adopting a particular module as solution would vary. At the same time, appetite of the MSME for adoption of complete set of 20+ modules would also vary.

Considering the above variations, a flexible model would be suggested for each MSME wherein, the modules as per the requirement would be implemented and the cost model, which can be either be payment or subscription based, depending on the appetite of MSME can be adopted.
The modules would be implemented phase-wise, and each phase will comprise up to 4 modules. The modules would range from solutions for HR, payroll, sales, purchase, accounts to manufacturing, inventory, asset design, maintenance, quality, business development and product lifecycle. These modules will be bucketized together to make a phase for easy implementation.

An indicative suite of software and hardware solution would be suggested to MSMEs the depending on their investment and level of quality certification. The software functionality along with the benefit it would provide to MSMEs is mapped below.

Indicative Software / Benefits expected	01.Sales	02.Finance and Accounts	03.Purchase	04.New Product	05.Stores / Inventory	06.Quality Assurance	07.Human Resource	08.Product Life	09.EHS (including Legal)	10.Advanced Dashboard	11.TPM	12.Manufacturing	13.IGI	14.FGI	15.e-CAPA	16.Payroll	17.Doc. Control	18.Tool Room	19.POMS and PCMD for	20.NBD (New Business)	21.Asset Management	22. LAB	23.Visitors Management	24. Website Management	25.Employee Portal	26.Customer Portal	27.Supplier Portal
1. Increase in Sales	★	★	★	★		★	★			★	★	★		★						★				★		★	
2. Increase in Productivity / Production			★			★		★		★	★	★						★	★		★	★					
3. Reliable and real time Data Availability for Analysis and daily	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★

Benefits expected \ Indicative Software	01.Sales	02.Finance and Accounts	03.Purchase	04.New Product	05.Stores / Inventory	06.Quality Assurance	07.Human Resource	08.Product Life	09.EHS (including Legal	10.Advanced Dashboard	11.TPM	12.Manufacturing	13.IGI	14.FGI	15.e-CAPA	16.Payroll	17.Doc. Control	18.Tool Room	19.POMS and PCMD for	20.NBD (New Business	21.Asset Management	22. LAB	23.Visitors Management	24. Website Management	25.Employee Portal	26.Customer Portal	27.Supplier Portal
works management																											
4. Increase in Competitiveness	★		★	★		★	★	★		★	★	★							★	★	★	★					
5. Reduction in Cost of Manufacturing	★	★	★					★	★	★	★	★	★					★	★								
6. Increase in Profitability / Profit	★		★					★	★	★	★	★							★	★							
7. Reduction in Rejections (Multi-level)		★	★					★	★	★	★	★	★	★	★			★	★								
8. Increase in Process Capability			★					★		★	★	★	★					★									
9. Increased Employee Engagement									★	★	★	★				★									★		
10.Increase in Factory and Production line flexibility		★	★	★				★		★	★	★															
11.Increased Product				★				★		★																	

Benefits expected \ Indicative Software	01.Sales	02.Finance and Accounts	03.Purchase	04.New Product	05.Stores / Inventory	06.Quality Assurance	07.Human Resource	08.Product Life	09.EHS (including Legal)	10.Advanced Dashboard	11.TPM	12.Manufacturing	13.IGI	14.FGI	15.e-CAPA	16.Payroll	17.Doc. Control	18.Tool Room	19.POMS and PCMD for	20.NBD (New Business	21.Asset Management	22. LAB	23.Visitors Management	24. Website Management	25.Employee Portal	26.Customer Portal	27.Supplier Portal
Customization																											
12.Reduction in Staff Cost				★						★						★											
13.Reduction in Financial Cost	★	★					★			★									★								
14.Improvement in Inventory turnover ratio (ITR)		★			★			★		★																	★
15.Reduction in Time to Market New Products		★	★							★									★	★							
16.Right First Time - New Product Development		★	★							★										★							★
17.Improved on Time Delivery / improve Supply Chain Management		★			★					★	★							★									
18.Knowledge Retention			★							★					★				★								

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Indicative Software / Benefits expected	01.Sales	02.Finance and Accounts	03.Purchase	04.New Product	05.Stores / Inventory	06.Quality Assurance	07.Human Resource	08.Product Life	09.EHS (including Legal)	10.Advanced Dashboard	11.TPM	12.Manufacturing	13.IGI	14.FGI	15.e-CAPA	16.Payroll	17.Doc. Control	18.Tool Room	19.POMS and PCMD for NBD (New Business)	20.NBD	21.Asset Management	22. LAB	23.Visitors Management	24. Website Management	25.Employee Portal	26.Customer Portal	27.Supplier Portal
19.Real Time status of Machine										★									★								
20.Improved Compliance	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★						
21.Improve Environment, Health and Safety management									★														★		★		

Project Feasibility:

Implementation of ERP solution includes components of consultancy, software and hardware, which can range from INR 5 lakhs to INR 1 Cr, depending on the requirement of the MSME. To rationalize the cost and increase acceptability of the proposed solution to the MSME, there would be both, upfront payment and subscription-based payment models suggested, for ease in implementation of the ERP solution.

As per the assessment of the survey conducted, MSMEs have shown willingness to adopt and invest in the digital solutions. However, there was reluctance observed towards paying cost of consultancy, wherein, the gap and need assessment of the solution required is conducted for the MSME. The reason behind is that the expectation of the MSME is complete implementation of the solution and not just a payment for a gap analysis report, post which there could be lack of handholding support.

To address the above challenge, it is proposed that the cost of consultancy would be borne Government of India under the RAMP programme and rest of the implementation cost, depending on the appetite of the MSME be shared between government and the respective MSME.

To check the readiness and implementation of the ERP solution for the MSMEs, the team of Vyapar Sahayak (business facilitators) will conduct a process study as proposed in another RAMP intervention before accepting the MSME into the project. Company with quality certification of minimum ZED Certification Level – Bronze, will provide basis for level of adoption of new technology.

The Vyapar Sahayak would basic knowledge of basic ERP modules such as Accounting, HRMS, Inventory and Sales to identify the MSMES with a requirement of an ERP solution and for enrolling them into program.

Project Viability:

For small businesses solutions such as cloud-based ERP systems which offer benefits such as scalability at lower investment costs can also be considered. Other solutions such as open-source ERP systems which are less complex as it needs lower proprietary technologies, hardware, and software for implementation can also be considered by MSMEs. Such solutions can range from INR 1 lakh to 20 lakhs depending on the requirement of the MSMEs i.e., number of modules and users.

Approach and Methodology for execution/implementation

Project implementation will start with identification of MSMEs and enrolling them into the project. Assessment of the processes will be conducted to identify the challenge areas and then suitable modules would be suggested. Phase wise implementation of all the modules identified would be carried out. It was assessed during the survey that the MSMEs may not require complicated and advanced version of ERPs and basic modules such as inventory, HRMS, Payroll should be enough towards strengthening their digital capacities. It is envisaged to prepare templatised lighter version of ERP suited more for MSME units. In the proposed project, cost of implementation of 4 basis modules will be covered which would include Accounting, HRMS, Inventory and Sales.

Each phase will comprise up to 4 modules on an average and will take 4-6 months for implementation. Pre-requisites such as ground discipline, training, defining responsibility, process and document control would also be carried out the by the consultant for smooth implementation of the identified modules.

The project implementation will include consultancy, 5 years of maintenance cost, creating ground discipline, organizational re-structuring, training, hand holding, process improvements and data migration / creation.

The selection of the MSMEs to be enrolled into the project would be based on the mechanism which would have ranking criteria basis certain parameters in consultation with department. The criteria for ranking could be enrolment of a women owned MSME, green certifications held by the MSME, or initiatives implemented by the MSME, certifications higher than bronze ZED certifications etc.

Timelines for achievement of project deliverables and verification protocols:

The implementation of 20+ modules for each MSME unit would take a period of 3 years to implement however, the proposed intervention under RAMP is for a period of 5 years.

Under the RAMP programme, implementation of only one phase i.e., 4 modules (Accounting, HRMS, Inventory and Sales) would be covered in the proposed project.

Project work plan for phase-wise implementation of ERP solution for 20+ modules is provided below.

Activity	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Awareness generation for enrolling units	■			■	■			■	■			■
Technology and certification gap assessment with associations and medium sized industries	■											

Phase-wise procurement and implementation of suite of software / technology / certifications and subscription	1		2		3		4		5		6	
Hardware procurement and installation as per requirement												
Consultancy, Maintenance for 5 years, Creating Ground discipline, Organizational re-structuring, Training, Hand holding, Implementation of solution, Process improvements, Data migration / creation												

	implementation of only one phase i.e., 4 modules (Accounting, HRMS, Inventory and Sales) cost of which would be covered in the proposed project.
	implementation of more than one phase as per the discretion of the MSME at his own cost.

Estimated impact of the project/scheme/proposal

The proposed project plans to improve the efficiency of the MSMEs and support them in transitioning from a beginner level of digitization to Industry 4.0 over the period of 5 years. Digitization of MSMEs will make them process oriented and bring in standardization which eventually leads to improving financial health of the firm in the long run. Adoption of technology builds capabilities of MSMEs which would help them leverage platforms like ONDC for increased market coverage. It also leads to wider participation of MSMEs in the international value chain.

The project plans to cover 2,000 MSMEs in the proposed timeline as follows:

Onboarding	Y1	Y2	Y3	Y4	Y5	Total
Medium, Small and Micro units	--	400	400	600	600	2,000

Project costing and contribution of State government towards it:

Cost of implementation of ERP would depend on maturity of the MSME and the number of modules and users it would want to implement. ERP implementation of 4 modules can cost up to INR 20 lakhs depending on

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various software available in the market. For implementation of 4 modules, it is proposed that 50% of the ERP implementation cost up to a ceiling of INR 5 lakhs per MSME would be covered under the RAMP programme and remaining cost would be borne by the MSME. The proposed contribution under the programme would include cost of consultancy, implementation of 4 modules and 5 years maintenance.

Proposed Project Budget							
Cost components for implementation of 4 modules	Cost per MSME (INR Lakh)	Number of units (Year-wise)					Total Cost (INR Cr)
		Y1	Y2	Y3	Y4	Y5	
1. Technology gap assessment	5	--	400	400	600	600	100
2. Training							
3. Process and document control							
4. Responsibility mapping							
5. Solution consultancy							
6. Manpower cost: Consultants, System Analysts, Coders, Implementation Champion							
7. Implementation of ERP solution (4 modules)							
8. Maintenance of 5 years							

Note – Post implementation of 4 modules, MSME can continue implementing rest of the modules as per its requirement and maturity level, per its discretion and at its own cost.

It is proposed that INR 100 Cr be contributed by Government of India under RAMP programme and the remaining cost would be borne by the MSMEs for implementation of the ERP.

State Government contribution:
Under the Industrial Policy of Punjab 2022, incentives for Access to Technology will be provided to MSMEs as follows:

1.	Assistance for Technology Acquisition	50% of the cost subject to maximum of Rs. 25 lakhs for adopting technology from a recognized National Institute once during the validity period of the Policy.
2.	Additional support to ZED scheme of GOI	Reimbursement of 50% of expenses subject to maximum of Rs. 5 lakhs incurred on plant and machinery/testing equipment for obtaining at least gold category status under ZED scheme to First 100 units during the validity Period of Policy.

Plan for strengthening M&E framework pertaining to the project/scheme/proposal:

1. Vyapar Sahayak will submit monthly reports and will conduct monthly meetings with GM DIC showing the progress of the project which will include enrolment of MSMEs and financial reports.

2. Progress of the project would be monitored monthly, quarterly and bi-annually in the review meetings conducted at appropriate levels.

3. Progress tracking using MSME digital portal to be developed under the RAMP programme.

6.11. Encouraging Green Manufacturing Practices in MSMEs by Making them Energy Efficient

Project Summary:

Punjab with its rich cultivating lands often faces shortage of electricity due to gap in demand and supply during the paddy season. With each passing year, there has been a consistent rise in the demand for power, from 9,000 MW in the year 2012 to 14,000 MW in 2022[62]. Currently, Punjab has a power generation capacity of 6,600 MW from its own sources and the demand forecasted for the year 2023 is 15,000 MW.

Every year, during the peak demand period of electricity, the State purchases the deficit from the share in the central pool or other states. To make Punjab self-reliant on its own sources of electricity generation and at the same time taking steps towards generating green electricity has become imperative.

This project aims to support the State in augmenting the capacity of energy generated by way of installation of solar power by the MSMEs and improving efficiencies of MSMEs by reducing production costs, supporting the State in moving toward carbon neutrality and act as agents of change towards the greening initiative.

In addition, the objective of this project is also to handhold MSMEs for adoption of Green Certifications basis a well-defined framework of rating system, which would eventually help them in reducing the consumption of energy, water and other natural resources and promote ecologically sustainable growth in their companies. This will be achieved through adoption of green rating systems present that will objectively assess the overall environmental performance of the company basis a framework and inform the MSMEs about the areas that they can improve on to get their ratings and get higher level certification.

Existing Competencies for the specific theme: human resources, physical infrastructure

Punjab has been making significant strides in solar power generation. The state government has been actively promoting solar energy as part of its renewable energy initiatives. Out of total 2150 MW of renewable energy generated in the state, 1200 MW comes from solar power projects[63]. Efforts are being taken to make Punjab a Carbon Neutral State and focus on energy conservation to abate greenhouse gas emissions.

Due to expansion of industries in Punjab, infrastructure in the State demands shifting from conventional power generation i.e., expensive thermal power to renewable energy sources. The State has already taken the lead to develop and notify Punjab Energy Conservation Building Code (ECBC) to demonstrate energy savings. Satluj Jal Vidyut Nigam (SJVN) is planning to develop about 5000 MW of green energy in the state of Punjab. State government has also announced its plans to put in place 300 MW worth of photovoltaic (PV) solar power installations[64] of which 100 MW will be floating solar on reservoirs and lakes and 200 MW shall come up on canal tops. The State has also received a nod from the Ministry of New and Renewable Energy (MNRE) for solarisation of 1 lakh grid-connected electric tube wells.

Punjab has witnessed implementation of greening initiatives such as Green Buildings, rating systems for energy efficient buildings by GRIHA, IGBC and LEED. Observations from the primary survey conducted shows that 33% of MSMEs have already implemented green technologies which reduces the air pollution and have installed rooftop solar panels for saving energy. 20% of MSMEs have adopted methods for rainwater harvesting and 14% use ZLD and ETPs to regulate their effluents being discharged from the units. However, there is a lot of scope in adoption of green initiatives for industries and making them a part of the manufacturing

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[62] Punjab State Power Corporation Ltd. (PSPCL)
[63] Hon'ble Minister, Department of New and Renewable Energy Sources
[64] Punjab Energy Development Agency (PEDA)

processes. A Green Rating System is a performance-based approach which can take specific parameters into consideration while assessing the MSMEs through which MSMEs would be able to address the environmental concerns while reaping some major benefits like:

1. Resource conservation
2. Strengthening of the bottom line
3. Making the MSMEs "Preferred Vendor Partners" for large corporates, the government and the PSUs
4. Providing green corporate image
5. Increasing export opportunities through superior performance
6. Enhancing credibility and providing increased ability to raise capital.
7. Paving way for new business opportunities

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

The project – 'Encouraging Green Manufacturing Practices in MSMEs by Making them Energy Efficient' aims to solarise the roofs of 2500 MSEs in the State along with Green Certifications. Implementation of this project would have a positive environmental, social, and financial impact on the industries and society at large. Adoption of solar power shall enhance the effectiveness of MSMEs which is in line with the principles of **DLI 5: Enhancing Effectiveness of CGTMSE and "Greening and Gender" delivery.**

Strategy for project implementation/scheme implementation with pre-defined milestone

Understanding the problem statement
Due to the limited installed capacity of electricity generation in the State, the deficit in supply has to be planned and covered. And unfortunately, the planned supply of electricity becomes painful for the industries as it included power outages. To supplement the deficit, the cost of acquiring the required electricity from other sources increases which directly impacts the cost of production for MSMEs. Observations gathered from the primary survey indicates about the interest of industries in adopting solar power, consciousness about green energy and taking steps towards developing sustainable infrastructure for the industries. The primary survey shows that 46.6% of the MSME respondents lack the knowledge about green and sustainable solutions and methods to adopt green initiatives. About 32% of the MSMEs also showed their concerns about the high cost of implementation of the green technologies or solutions which acts as a hinderance for them in adopting a solution. However, industries in districts such as Fazilka and Sri Muktsar Sahib showed readiness towards installing solar power as it provides stable electricity supply, saves on energy costs and at the same time reduces carbon footprint. Such greening initiatives are voluntarily adopted, many of the company heads are hesitant in adopting green technologies or certifications as the cost is high but at the same time, they are not aware of the long-term benefits after acquiring such certifications. Besides the financial concern and lack of knowledge, there is also a lack of awareness about any of the green schemes in the State.

Proposed project design, concept
The project intends to target 2500 energy audited MSE units which require capacity installation from 10 kW to 50 kW of solar power. Agencies would be onboarded which will identify the MSEs and would support in solarisation and Green Certification. A typical roof top solar power installation requires less than 4 months for installation and commissioning. An average cost for installing 50 kW of power plant costs approximately INR 30 lakhs with additional cost of annual maintenance. The average payback period to recover all the costs incurred in can be anywhere between 5 to 7 years depending on the energy consumption.

Key components	Solar panels
	Solar mounting structure
	Solar inverter
	The balance of system (cables, fuses, MCBs, and Distribution boxes)
Energy output	50 kW solar power plant can produce:
	– 200 kWh (units) of electricity per day
	– 73,000 kWh of electricity per year

The MSEs will enrol with the support of an implementation agency which will be a two-member team who will spread awareness about the Green Rating system and identify the interested MSMEs. Upon enrolment in the program, the adoption of green rating system would have three major components:

1. **Training and hand holding provided by consultants** - Here, the MSMEs will be explained the process of the rating system and the MSME owners will share their companies' data on various processes and operations. After going through the data, the consultants will identify gap areas in the company and help in documentation that will include all the details of the greening initiatives and technologies been adopted by the company.
2. **Assessment through sector specific assessors** - a pre- assessment will be conducted by empanelled assessors of the certification rating agency first which will include going through the documentation in detail and providing feedback to the MSMEs based on their observations. Once that is completed, final assessment would be conducted through a site visit. The assessors would perform a thorough assessment and evaluate the MSMEs.
3. **Certification awarded by the rating agency**- Once the assessment is complete, the assessors will send in their recommendations and within a week the certification rating agency will provide the MSME with their level of certification.

Project feasibility:
Punjab government has been promoting solar energy as part of its renewable energy initiatives and efforts are being taken to make Punjab a Carbon Neutral State. About 33% of the participants of the primary survey responded that they have already adopted green initiatives such as installing solar power, however, by addressing the challenge of lack the knowledge about green and sustainable solutions, educating MSMEs about the benefits of adopting the solar power and providing financial support, the proposed intervention becomes feasible for MSMEs.

Project viability:
Viability of the project can be gauged by doing cost benefit analysis and calculating payback period.

Particulars	Description
Average Daily energy output	200 kWh
Annual energy output	200×365 = 73,000 units

Energy tariff (PSPCL)	INR 6.05 / unit
Average amount on energy cost saved over the year	**14,600 x 6.05 = INR 2,64,990**
Cost of installing 50 kW solar power	INR 30,00,000
Average payback period	**26,46,000 / 2,64,990 = 9.98 years**

Approach and Methodology for execution/implementation

Vyapar Sahayak (business facilitator) proposed as RAMP intervention in other project will identify MSEs for solarisation with adequate space and would gather the requirement of any credit support required. The rationale behind targeting MSEs units is that these units would usually have space constraint for installing 50 kW solar panel on the roof. Upon identification of the units, energy audit shall be conducted in line with the PSERC and PSPCL Net metering policy.

The major issue that MSMEs face is lack of credit support from banks. The proposed Vyapar Sahayak would support the units identified in getting loans from the Participating Financial Institutions (PFI) under the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) – Environment and Social Policy, 2022 for Rooftop Solar Guarantee Facility for MSMEs or through provision of interest subvention under the MSME GIFT scheme of Government of India.

After identification of the MSEs and requirement of credit resolved, solarisation can be started with the help of solar power services provider. The service provider would check the energy requirement of the MSME, support in designing, survey, material requirement, mounting of structure and finally commission the solar power plant.

The assumption taken to design the project is adequate space for roof mounted solar power considering the area of the units. Another assumption considered to arrive at installing 50 kW solar power system is that the average consumption of energy for micro and small units vary between 20 kW to 50 kW. Preference would be given for women MSMEs for installation of solar power.

To promote green measures in the industry, Government of Punjab launched Net Metering Policy in the State of Punjab wherein the industrial unit can avail sanction on installing 80% of the total connected load as solar power. While the policy applies equally on MSME or large units, however, given the huge MSME base in Punjab it is pertinent to expedite implementation of this policy in MSME units. With this proposed intervention under the RAMP programme, awareness about green initiatives and about the Net Metering Policy by Punjab Energy Development Agency (PEDA) would spread and implementation of the Net Metering Policy would be facilitated. The state government shall notify a scheme which would be implemented in line with Net Metering Policy notified by Punjab State Electricity Regulatory Commission (PSERC).

Another solution for installing roof-top solar panels is through lease model which can be explored by the MSMEs. In this model, the customer obtains the rooftop solar system on lease from a solar service provider company by agreeing to lease its space for installation of the solar panels. The monthly rentals are worked

out such that the electricity cost provided by the solar company is at a discounted rate to the MSME units thereby ensuring net savings. A PPP model can also be explored for such kind of an arrangement.

Stakeholders involved	Role
Vyapar Sahayak (business facilitator)	Identification of MSME units and handholding for credit support requirement
Partner solar service provider	Solar power plant design, survey, material procurement, erection of structure, commissioning

Role of the Vyapar Sahayak:

- Identification of MSME units for solarisation with all existing prerequisites and facilitate energy auditing
- Handhold units in availing support from the CGTMSE scheme of the central government
- Handhold units in availing support from the MSME GIFT Scheme of RAMP

Since the aim of the project is also to increase the enrolment of the MSMEs of Punjab on the Green Rating Certification System. An implementation agency will be hired to ensure a smooth onboarding process of MSMEs into the program through awareness generation and by providing handholding support.

Year	Target number of MSMEs
Year 1	--
Year 2	625
Year 3	625
Year 4	625
Year 5	625
Total	**2500**

MSMEs interested in participating in Green Certification would enrol into the program with the help of the implementing agency. Once the enrolment is completed, a training session will be organized by the empanelled consultants and the aim of this training program will be to introduce the rating system to the MSME owners and help them understand the process and rationale behind it. During the training, the MSME owners will provide data on their company's operations through which the consultants will identify gaps that can be worked on to make the company eco-friendlier. Besides this, they will also provide handholding support in preparing proper documentation that will highlight the green initiatives being taken up by the company and the areas that still need green intervention.

Once the training program has completed, the empanelled sector-specific assessors will conduct a pre-assessment of the MSMEs. The objective of this activity is to validate the data submitted and provide feedback on various improvement areas and opportunities. Once the company is done with this step then a site visit for assessment will be conducted by the assessors. Here, a thorough assessment of the initiatives which has been taken up by the MSMEs will be conducted and a report would be submitted to the rating agency on the basis of which the level of certification would be recommended and finalized.

Role of the Implementing Agency would be:

- Awareness generation on the green rating system for MSMEs in Punjab

- Identification of MSMEs willing to enrol in the green rating system across districts.

The process flow of certification is shown below:

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┌─────────────────────────┐
│      Registration       │
└─────────────────────────┘
            ↓
┌─────────────────────────┐
│  Handholding & Training  │
└─────────────────────────┘
            ↓
┌─────────────────────────┐
│ Submission of Documents  │
└─────────────────────────┘
            ↓
┌─────────────────────────┐        ┌──────────────────────────┐
│    Pre – Assessment     │   ⇒    │ Document review and       │
└─────────────────────────┘        │ appraisal                 │
            ↓                       └──────────────────────────┘
┌─────────────────────────┐        ┌──────────────────────────┐
│  Site Visit by Assessors │   ⇒    │ Verification and validation│
└─────────────────────────┘        └──────────────────────────┘
            ↓
┌─────────────────────────┐
│  Submission of Reports   │
└─────────────────────────┘
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│     Award of Rating      │
└─────────────────────────┘
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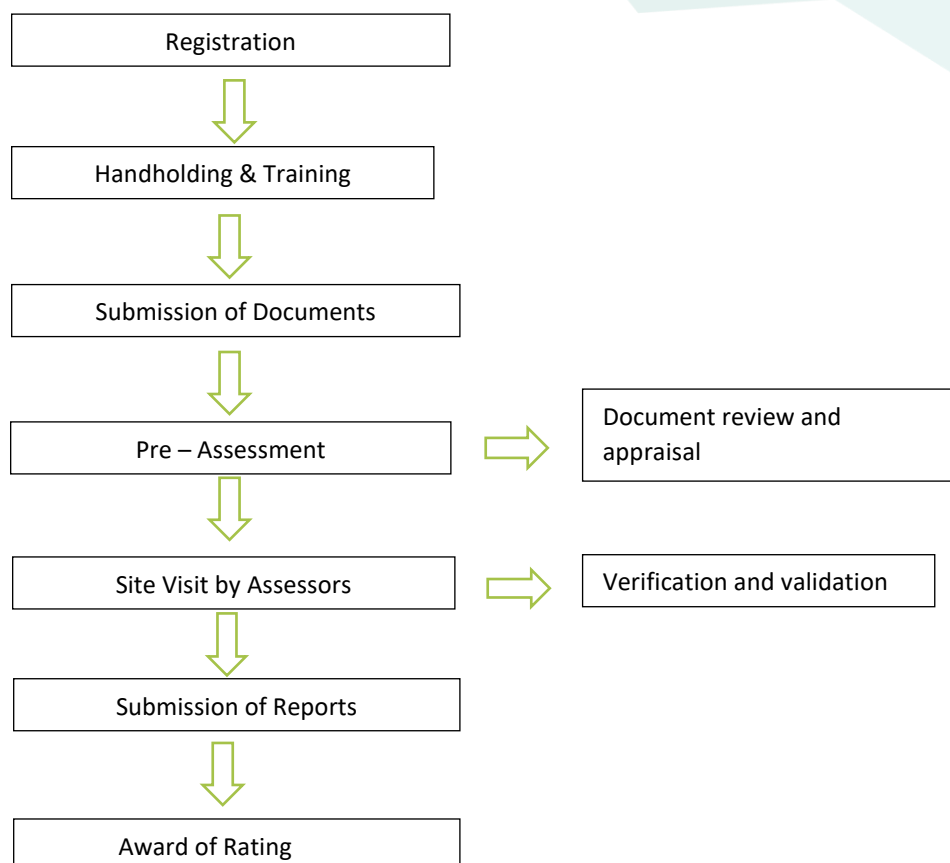
The Green Rating System would provide the MSMEs with a specific level of certification based on the points it scores. There could be various parameters on which the company can score points and receive the level of certification.

The indicative parameters for rating are as follows:

Sno.	Parameters (Indicative)	Suggested weightage (points)
1.	Energy Conservation	150
2.	Water Conservation	100
3.	Renewable Energy	75
4.	GHG Emissions Reduction	75
5.	Waste Management	75
6.	Material Conservation, Recycling & Recyclable	75
7.	Green Supply Chain	50
8.	Other (Ventilation site location, Innovation & Product stewardship)	100
Total		**700**

Indicative rating levels which can be achieved basis scores are as follows:

Level	Points	Rating System
Level 1	225-299 points	Certified
Level 2	300- 374 points	Bronze
Level 3	375 -449 Points	Silver
Level 4	450 -524 Points	Gold
Level 5	>525 Points	Platinum

The certifications can have a validity period which may be of 3 or 5 years and the MSMEs would have an option of reapplying and getting re-certified. However, it is at the discretion of the MSMEs. As these ratings allow MSMEs to be green, more competitive in the market and make them as preferred partners for engaging with large industries, it is assumed that MSMEs will for re-certification after witnessing the benefits of the certification.

a. **Timelines for achievement of project deliverables and verification protocols**
A typical project for solar power installation will take about 6 months for commissioning. The activities and timelines for implementation of the project for one MSME is provided below:

Activity	M1	M2	M3	M4	M5	M6
Identification of the unit	■					
Credit support and technical feasibility	■					
Designing of solar power plant Surveying		■				
Government Approvals		■				
Laying of infrastructure for grid connection		■	■			
Procurement of solar panels, cables, inverter, structure				■		
EPC contractor to erect the structure				■	■	
Commissioning of the project						■

Given below are the tentative broad timeline for the project, basis the requirement and discussion with the relevant authorities, more granular details of timelines can be worked out for the project.

Component	Days
Onboarding of the MSMEs	2 days
Hand holding and Training programs	75 days
Assessment	10 days
Submission of report	3 days
Award of Rating	7 days

The total time estimated for the complete certification process is about 3 months. It may vary up to 4 months depending on the initiatives taken up by the MSME.

Estimated impact of the project project/scheme/proposal

Under the proposed project, the aim is to target 2500 energy audited units over a period of 5 years. By installing 50kW solar power for 2500 MSME units, **125 MW** capacity of energy would be added in the State and reduction of carbon emissions equivalent from the energy generated through thermal power generation would be reduced. As greening and reducing carbon footprint is the priority for Punjab government, the proposed intervention supports the State government in achieving carbon neutrality. MSMEs would be able to reduce their production costs and make themselves competitive in both, domestic and international markets. In the long run, MSMEs contribute towards positive social and environmental impact.

Onboarding	Y1	Y2	Y3	Y4	Y5
MSMEs	--				
		625			
			625		
				625	
					625
Total	2500				

The project will also have a long-term impact on the 2500 MSMEs by way improving energy efficiency, reducing the resource utilization, water conservation, adoption of renewable sources of energy, waste management and becoming a part of green supply chain. Adoption of Green Rating System would ensure reduction in carbon footprint and emissions which has a long-term impact on the environments and makes the manufacturing processes more sustainable and eco-friendlier.

b. Project costing and contribution of state government towards it

Project costing for 50 kW capacity of solar power plant installation is provided below:

State government shall provide reimbursement of expenses incurred for Energy Audit (75% subject to maximum of Rs. 1.5 lakh each for energy audit) for eligible units i.e. **INR 20 Cr**

a. Green Certification cost for the eligible MSMEs which have already installed solar power and for units which will install solar power under the RAMP initiative for 2500 MSMEs (including cost of consultant and assessors) @ INR 2.5 lakhs = **INR 62.5 Cr**

b. Cost of installation of 50 kW solar power

S.no.	Items		Average Cost for installing 1 kW	Total Cost for installing 50kW solar power
1	Material	Solar Panels		

		Solar Inverter	INR 60,000	INR 30 lakhs
		Combiners + Junction Boxes		
		Solar accessories		
2	Fees for consulting, feasibility study, liaising with government, training for operation and maintenance etc.			
3	Mounting structure			

It is proposed that, all the Green Certified units would be given preference for incentives for availing loan under RAMP sub-scheme i.e. **MSME GIFT scheme**:

- Total cost incurred in installing roof top solar panels @ INR 60,000 per 1kW for 2500 units for 50kW = INR 750 Cr.
- Considering 75% guaranteed coverage for eligible loans, Cost = INR 562.5 Cr. Rest 25% cost to be borne by 2500 MSEs.
- Interest subvention of @ 2% through MSME GIFT Scheme for a period of 5 years = **INR 56.25 Cr.**

c. To make the scheme more attractive for MSMEs and the proposed project feasible, an incentive top up will be provided through RAMP programme. **Additional 2% top up for loans** to MSMEs up to INR 2 Cr with 75% guaranteed coverage for eligible MSMEs i.e. upto INR 3 lakhs would be provided or 10% of the cost of installation of the solar power till 50kW, whichever is lower.

- Additional top up through RAMP programme @ INR 3,00,000 per MSME for 2500 units = **INR 75 Cr**

Total project cost claimed under RAMP programme (a+b+c): 62.5 Cr + 56.25 Cr + 75 Cr = INR 193.75 Cr.

State Government support:

1. **Under Punjab Industrial and Business Development Policy 2022: INR 20 Cr**
   a. Reimbursement of expenses incurred for Energy Audit (75% subject to maximum of Rs. 1.5 lakh each for energy/environment/steam audit /water audit and Safety Audit once during the validity period of the Policy).

2. **Incentives under the New and Renewable Sources of Energy (NRSE) policy 2012:**
   a. 100% Stamp Duty exemption both on land purchase and lease.
   b. CLU & EDC charges exempted.
   c. 100% Electricity Duty Exemption on power consumed during construction of NRSE Projects.
   d. 100% Exemption on Pollution & Environment Clearance on Solar Projects.
   e. Wheeling of RE power at a uniform charge of 2% of the energy fed to the grid under Intra-State Open Access.
   f. Panchayats land can be provided on lease for setting-up of NRSE projects.

3. **Net Metering Policy**

"Net-metering" - a mechanism whereby solar energy exported to the Grid from Grid Interactive rooftop Solar Photovoltaic system of a Prosumer is deducted from energy imported from the Grid in units (kWh) to arrive at the net imported or exported energy and the net energy import or export is billed or credited or carried-over by the distribution licensee on the basis of the applicable retail tariff by using a single bidirectional energy meter for net-metering at the point of supply. The state government and notify a scheme which would be implemented in line with Net Metering Policy notified by Punjab State Electricity Regulatory Commission (PSERC).

4. **Capital Subsidy**

MSME units which are not eligible for incentives such as GST reimbursement or capital subsidy under the state policies may be provided incentives under this program.

Central Government support:

1. Credit Guarantee Trust for Micro and Small Enterprises - Rooftop Solar Guarantee Facility for MSMEs: Credit Guarantee Scheme seeks to reassure the lender (PFI) that, in the event that an MSME unit, which availed collateral-free credit facilities, fails to discharge its liabilities to the lender, the Guarantee Trust would make good the loss incurred by the lender ranging from 50% to 85% of the credit facility.

2. MSME GIFT Scheme: Provision of interest subvention of 2% per annum for a period of 5 years up to term loan limit of INR 2 Cr for the adoption of green technology.

c. **Plan for strengthening M&E framework pertaining to the project/scheme/proposal.**

To monitor the performance of the agency and measure impact of the project, following mechanism is proposed:
1. Submission of monthly progress reports basis the performance parameters or KPIs which could be defined at the later stage by the department such as number of MSMEs enrolled for solar power installation, MSMEs registered under CGTMSE scheme, number of women MSMEs enrolled etc.
2. Progress tracking using MSME digital portal to be developed under the RAMP programme.
3. Progress of the project would be monitored monthly, quarterly and bi-annually in the review meetings conducted at appropriate levels.

6.12. Augmenting Industrial Training infrastructure in Govt ITIs – Setting of a Training Studio to impart industrial training using Virtual Reality Technology

Project Summary:

The primary Punjab MSME survey identified significant gaps for SIP and RAMP development: skilled labor shortage (70% concern) and general labor scarcity (35% obstacle). Owners' doubts about workforce tech skills deter long-term beneficial investments in technology, impacting productivity, quality, and cost. Due to costly labor upskilling, an efficient, cost-effective, scalable model for skill enhancement is needed. The primary goal of simulation-based training is to expedite skill development and effectively impart profound expertise in 12 key sectors of the state which include (Machine/Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture Implements, Pharma, Engineering Goods, Auto & Auto Components, ESDM (Emerging sector) and one potential / sunrise sector for the State of Punjab), plant understanding, and situational awareness to all team members. Immersive training systems (ITS) that utilize VR technology place employees at the center of learning for vital plant operation and maintenance skills. Our major focus will be towards investing in software so that it can get upgraded from time to time. The project would also benefit in following ways:

- The significant advantage of simulation-based training is that important training and knowledge can be delivered in a consistent, repeatable manner within the safety of the training facility.

- A range of courses can be covered in every aspect of standard operating procedures for both normal and abnormal plant conditions in cost effective way.

- The interactive 3D virtual environment in the form of digital factory provides an enabling circumstance for innovation and evolution in manufacturing system, training, maintenance, repair, and operations of industrial Plants.

Open and transparent communication will play a pivotal role in ensuring that stakeholders are informed about the diverse training programs offered within the studio. By sensitively assessing demand, a flexible training calendar will be curated and put into action. Furthermore, the project will maintain an ongoing dialogue with industries, seeking their valuable insights periodically. This collaborative approach will enable the fine-tuning and enrichment of training modules, effectively responding to evolving needs and embracing new advancements.

Existing Competencies for the specific theme: human resources, physical infrastructure, content

As the survey result has highlighted, there is very less acceptability of technological transformation reason being the unavailability of skilled resources to work on the new technologies. So, there is need to create a skilling eco-system focusing on the making the workers familiar with new technologies being used in manufacturing plants. Punjab Govt. is striving hard to increase the adoptability of technologies through various initiatives such as Incentives for technology upgradation, training subsidy for employees etc. This effort to establish Training Studio in each district which will further compliment the ongoing efforts significantly. The training studios should be equipped with necessary amenities such as high-speed broadband, dual power sources (Grid & DG) to mobilise MSMEs and sufficient space to set up for these studios that will be provided by the Govt. ITIs and Polytechnics.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

This project can be aligned with the **Result Area 2 of the RAMP Programme, which is pertaining to the Enhancing the Firm Capabilities.** The overall objective of this one of its kind programmes is to upskill the resources on new technologies which further would give confidence to MSMEs to adopt transformative technologies in order to enhance productivity and take on go for expansion. This will also help in upgrading the skills of the employees in quick time as the major requirement would be to create the software to create a simulated environment as per product specification and SOP of the products.

Strategy for project implementation/scheme implementation with pre-defined milestone

Understanding the problem statement - Upskilling on advanced technology can be a challenge for several reasons, given the rapidly evolving nature of technology and the complexities associated with learning and mastering new concepts. Some of the key problems are:

- **Financial Cost:** Pursuing advanced technology courses or training programs can come with financial costs, such as course fees, training materials, and certification exams. Thus, creating the training infrastructure with real machines may not be financially feasible.

- **Lack of Accessible Learning Resources:** Comprehensive and high-quality learning resources for advanced technologies might be limited, especially for cutting-edge or niche subjects, finding mentors or experts who can provide guidance and support during the learning process might be challenging, especially for emerging technologies.

- **Rapid Technological Evolution:** Advanced technologies often evolve at a fast pace. New updates, versions, and breakthroughs can emerge frequently, making it difficult to stay current and relevant, also there is a concern that investing time and effort in upskilling might become obsolete quickly if technology advances or shifts in a different direction.

- **Changing Skill Demands:** The skills required by employers and industries can shift quickly, making it challenging to predict which advanced technologies will be most relevant in the future.

Proposed project design, concept, feasibility, viability

- Virtual Reality (VR) has proven highly effective in plant operator training, creating a realistic 3D environment where trainees, equipped with VR glasses, can engage with machinery, learn emergency handling, and access vital manufacturing data. These glasses project manufacturing information directly into their field of vision, using VR to highlight machine component locations and maintenance procedures. This interactive learning environment allows trainees to click and interact with machinery, navigate virtual factories, and understand potential health hazards. The result is an engaging and immersive training experience that surpasses traditional methods, enabling safer experimentation and promoting effective skill development.

- Industries like Aerospace, Automobile, and Electronics Manufacturing are actively embracing Virtual Reality (VR) solutions. VR is anticipated to reshape maintenance practices within the virtual manufacturing environment. This innovative approach enables maintenance engineers to virtually upkeep products, ensuring operability. The virtual maintenance system provides flexible training to engineers, incorporating a "learning-by-doing" philosophy, which overcomes real-world constraints such as cost and safety. VR's advantages over traditional methods include experiential learning, aided by visual, auditory, or haptic cues, and customizable simulations that align with users' training goals.

- Deploying VR training entails upfront investments in hardware, software, content creation, and

instructor and participant training. Despite these costs, VR's immersive and captivating nature substantially amplifies industrial training's effectiveness, elevating knowledge, and skill retention. Over time, this approach not only becomes economically viable but emerges as a coveted strategy in an ever-evolving technological landscape.

- Therefore, Training Studios will be established through vendor partnerships, where vendors contribute technical hardware and software. The government ITIs and Polytechnics will provide the necessary space and utility services for the setup. This collaborative approach ensures a comprehensive and well-equipped training environment.

The project's feasibility hinges on its cost-effective solution, driven by these factors:

- **Strategic Training:** The initiative's viability is bolstered by targeted personnel training on the platform, ensuring industry-ready skills. Partnerships with ITIs and Polytechnics grant access to skilled individuals. District VR studios expand this network.

- **Swift Tech Integration:** The project excels in rapidly integrating advanced tech. Through cutting-edge tools, quick upskilling occurs, bridging old and new practices seamlessly.

- **Enhanced Skills:** The project fosters skill growth, acting as an educational conduit. It exposes individuals to modern methods, propelling them beyond traditional practices.

In conclusion, the project's feasibility rests on its economical solution, combining efficient training, widespread VR studios, and rapid tech adoption. It serves as a potent force for upskilling and tech advancement across industries.

Viability of the project

The project is viable since its objective is to raise awareness among members about the advanced technologies prevalent in various sectors and gauge the willingness of a substantial user base to embrace these innovations. Our sample survey underlines this trend, indicating a positive disposition towards adopting new technology when supported by adequate skilling infrastructure.

Approach and Methodology for execution/implementation

VR technologies enables realistic representations of real world, so they are cheaper solution to currently training based on real mock-up models. Further, the use of Computer Aided Design (CAD) has become generalised in the industrial environment, which implies that 3D models are available and so, a lot of work is ready in order to build VR environments. Finally, 3D representation of the model and interactivity with it seems to be a more natural learning media than plain documents, blueprints, or fixed videos. This communication improvement gets even more outstanding if the VR environment provides simulation facilities, allowing the trainee to interact with the system in a realistic way, even before the equipment is fully designed. Therefore, VR technology within an industrial environment makes tasks like virtual training mock-up (using VR simulations) much easier and richer. Following steps would be taken to implement the project.

- **Identify Training Goals and Objectives:** Define the specific skills and knowledge that participants need to gain across the 12 sectors from the industrial training. This could include understanding machinery, safety protocols, maintenance procedures, and more.

- **Content Creation and Development:** Work with subject matter experts across the 12 sectors, the identified vendors, to develop accurate and detailed VR content. This could involve creating 3D models of machinery, environments, and interactive simulations that mimic real-world scenarios.
- **Design Interactive Scenarios:** Develop a series of interactive scenarios that participants can navigate and interact with in the VR environment. These scenarios should replicate real-world situations that participants might encounter in an industrial setting.
- **Equipment Familiarization**: Allow participants to virtually explore and interact with machinery, tools, and equipment. This helps them become familiar with the components and functions without the risks associated with physical contact.
- **User-Friendly Interface:** Ensure that the VR interface is intuitive and easy to navigate. A user-friendly interface enhances the overall learning experience and make the VR training interactive by including options for participants to manipulate objects, press buttons, and perform actions that mimic real-world tasks.
- **Integration with Traditional Learning:** Integrate VR training with traditional classroom learning or online modules to create a comprehensive training program.
- **Progressive Learning:** Design training modules that progress in complexity. Start with simpler tasks and gradually introduce more challenging scenarios as participants advance. It will help the workforce to not just be well versed with the theoretical knowledge but also be industry ready by providing hands on experience by gaining more practical exposure.
- **Start with the basic module such as repair & maintenance and safety training:** Create interactive simulations that guide participants through equipment maintenance and repair tasks. This hands-on practice can improve their troubleshooting skills and confidence and use VR to simulate hazardous situations and safety protocols. Train participants on how to respond to emergencies, use safety equipment, and follow proper procedures to ensure their safety and that of others.
- **Vendors selection through quality based competitive bidding:** World class vendors would be called to implement the project across the state. In each district one such centre would be set up in phased manner understanding the requirement of the cluster/districts.

- Establishing clear and open lines of communication will be crucial in keeping stakeholders well-informed about the wide array of training programs available within the studio. Through careful evaluation of demand, a responsive training calendar will be crafted and implemented. Moreover, the project will consistently engage in constructive conversations with industries, aiming to gather their valuable perspectives on a regular basis. This cooperative strategy will facilitate the refinement and enhancement of training modules, ensuring their alignment with evolving requirements and the integration of emerging innovations.

- The project will be implemented in collaboration with the institutes/ organizations having an expertise of capacity building on these subjects. The trainings would be based on train the trainers concept wherein the faculty members will be trained who would further strengthen capacity of MSME units in leveraging new age technologies for efficient production practices.

Use of ICT/Innovative technology towards project implementation

- Embrace the potential of cutting-edge technology by crafting 3D models of machinery, environments, and interactive simulations that replicate real-world scenarios.
- Innovate with a range of interactive scenarios within the VR environment, mirroring situations commonly encountered in industrial settings.

- Prioritize an intuitive VR interface, facilitating seamless navigation for an immersive learning journey.
- Elevate interactivity by empowering participants to manipulate objects, press buttons, and enact tasks mirroring real-world actions.
- Employ VR to emulate hazardous situations and safety protocols, enabling trainees to practice emergency response, proper safety equipment utilization, and adherence to procedures, ensuring personal safety and that of their peers.

Timelines for achievement of project deliverables and verification protocols

The aim is to start first virtual training studio within six months of project onset, progressively the studios would be set up in each district over the next 2 years. These will be started with the basic training modules and as system becomes matured complex training module would be added to it. The districts will be decided by the Department of Industries & Commerce, Punjab.

Particular	1st Year	2nd Year	3rd Year
Studio Setup	5 Districts	8 Districts	10 Districts

1st Year Activity	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Studio Setup (5 Districts)												
2nd Year												
Studio Setup (8 Districts)												
3rd Year												
Studio Setup (10 Districts)												

Estimated impact of the project project/scheme/proposal

The proposal aims to impact **84,000 MSME units per year** (10 sessions per day in 23 districts) in the state of Punjab, especially those where usage of emerging technologies is prevalent and those who wants to expand diversify and finding the local resources with the requisite skill sets is the challenge. Also, this will help in making the resources ready to work on new technologies in the quickest time. Additional Safety training, an integral part of this system, would help in reducing occupational hazards.

Project costing

Particular	Unit cost	Year 2 (INR Cr)	Year 3 (INR Cr)	Year 4 (INR Cr)	Year 5 (INR Cr)	Total Cost (INR Cr)

Hardware for each district	Rs 5 lakh per district	Rs 5 lakh * 5 districts = 0.25	Rs 5 lakh * 8 districts = 0.40	Rs 5 lakh * 10 districts = 0.50		1.15
Software Cost	Rs 50 Lakh per district	Rs 50 lakh * 5 districts = 2.5	Rs 50 lakh * 8 districts = 4	Rs 50 lakh * 10 districts = 5		11.5 Cr
Yearly operation & Maintenance Cost	Rs 15 Lakh per district per year	0.75	1.95	3.45	3.45	9.6
Total Budget – Rs 22.25 Cr						

State Government Contribution: Infrastructure to be provided by ITIs and Polytechnics for setting up training studios.

Plan for M&E of the project

The above proposed project shall be monitored through the MSME digital portal created to monitor the number of beneficiaries and the post training feedback would be taken from industries as well. The new module will be added after extensive consultation with MSMEs. The following ways will be used as part of M&E:

- Feedback and Assessment: Incorporate mechanisms for real-time feedback and assessment within the VR environment. For example, participants could receive instant feedback on their performance in completing tasks and basis that there will be regular update and refinement of the VR training content based on participant feedback and emerging industry trends.
- Data Analytics & Monitoring: Incorporate data analytics to track participants' progress, performance, and engagement within the VR training modules. This data can help improve the training content over time.
- This will incorporate valuable feedback for government stakeholders, detailing the number of individuals trained. The concerned Principal ITI/Polytechnic will maintain a record of monthly VR training sessions conducted across all ITIs and Polytechnics and GM DIC shall be intimated accordingly. This ensures transparent tracking and accountability of VR training initiatives.
- Additionally, enrolment and course completion data will be actively tracked and monitored.

6.13. Encouraging Manufacturing Practices leading to Circular Economy in MSME units

Project Summary:

The circular economy is an economic model designed to maximize the use of resources and minimize waste, in contrast to the traditional linear economy which follows a "take-make-dispose" pattern. In a circular economy, products, materials, and resources are kept in circulation for as long as possible through strategies such as recycling, reusing, repairing, and remanufacturing. This approach aims to reduce environmental impact, conserve resources, and create economic opportunities. Adopting a circular economy in Punjab would involve implementing various strategies and initiatives that promote resource efficiency, waste reduction and sustainable economic growth. And to assess the same and understand the expanse of measures to be taken, a comprehensive assessment is proposed to be conducted of the current state of resource consumption, waste generation, and existing recycling and reuse practices in Punjab along with implementation support to the industry in the next 5 years.

Existing Competencies for the specific theme

The circular economy principle is now becoming an integral part of business models of MSMEs. Companies have begun with taking measures wherein nearly 5% of the fuel requirements are met through the alternate fuels. Certain measures such as green certifications have also been adopted by MSMEs to improve efficiency across energy consumption, water conservation, adoption of renewable energy, reducing greenhouse emissions, waste management, material conservation etc. Corporates are signing MoUs with service providers to adopt alternate materials, fuels and energy. However, to strengthen the ecosystem, there are some potential measures that Punjab can adopt for circular economy such as having a policy or regulations, promotion of recycling and reuse, focus on local production and consumption, investing in R&D, improving packaging etc.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives

The proposed project aligns with **DLI 5 - Enhancing Effectiveness of CGTMSE and "Greening and Gender Delivery"** as the proposed intervention covers the study of sectors with potential for adopting various initiatives leading to adopting circular economy and further, providing support in implementation of circular economy in Punjab.

- Enhancing Firm Capabilities - Adopting circular economy will allow MSMEs to conserve their resources without compromising the quality of their products. Through the assessment the MSMEs will be able to work on adopting measures for circular economy.
- Improving the Access to Markets - Once the MSMEs are able to integrate their businesses with environment friendly initiatives, it will open them up to various markets and export opportunities.
- Promoting Growth and Development - The project aims to empower MSMEs by providing them with resources that will accelerate their growth in a sustainable manner. Upgradation to eco- friendly technology will have long term benefits.

Strategy for project implementation/scheme implementation with pre-defined milestone
a. **Understanding the problem statement**

To adopt circular economy in Punjab, wholistic approach towards adopting the concept would be required. Various challenges posed which limit the adoption of greening initiatives can include:

1. Limited infrastructure for recycling, waste processing and remanufacturing infrastructure can be expensive and time-consuming.

2. Lack of awareness of the concept and resistance to change is a big challenge. Encouraging consumers to choose recycled products, participate in recycling programs, and adopt sustainable consumption patterns can be a challenge, especially if pricing or convenience factors are involved.

3. Integrating circularity into supply chains would require collaboration and coordination across various stakeholders, including suppliers, manufacturers, distributors and retailers. Depending on the region, there might be limitations on the availability of certain resources required for circular practices, such as recycled materials or skilled labour for repair and remanufacturing.

4. Developing and implementing technologies for efficient recycling, remanufacturing, and waste reduction can be complex and require ongoing innovation.

b. Proposed project design, concept

An agency will be onboarded would assess the potential of adoption of circular economy in the 12 key sectors of the state which include (Machine Tool, Hand Tools, Sports Goods, Food products, Bicycle, Textile, Agriculture Implements, Pharma, Engineering Goods, Auto & Auto Components, ESDM (Emerging sector) and one potential / sunrise sector for the State of Punjab) over the period of 1 year. A comprehensive report would be submitted after the assessment. The agency would gather the requirements for adopting circular economy on parameters such as requirements of policy and regulation, promotion of recycling and reuse, adoption of circular business models and supply chains, initiative for R&D, circular design and packaging, availing financial incentives, grants, and subsidies to businesses and organizations for adopting circular practices across the aforementioned sectors, visit districts, interact with DIC officials, sector experts, industrialists, industry associations etc.

A platform would be created for deliberations on circular economy. Sector-specific interventions and ideas would be exchanged on the proposed platform wherein experts and industry representatives would be invited. An expert in Circular Economy would also be onboarded who will support the MSMEs in preparing circular business models to recover and retain resources.

Project feasibility

Eco-design, repair, reuse, refurbishment, remanufacture, product sharing, waste prevention and waste recycling are all important in a circular economy. It addresses resource depletion by implementing eco-efficient measures that reduce the consumption of non-renewable resources which enables retaining the value for a longer period. The proposed intervention would help MSMEs adopt of circular economy which minimises waste, allows to plan for energy usage and reduces supply chain-related risks.

Project viability

Adoption of circular economy is crucial, especially in the context of industrial growth which is faced with pressures of dwindling resources. To sustain and continue the trajectory of growth rate of MSMEs, the adoption of circular economy is imperative as this will address future resource shortages. Various measures, policy level decisions and regulations would be imposed in the future to curb the exploitation of resources, which will eventually lead MSMEs to include circular economy in their business models.

c. Approach and Methodology for execution/implementation

The team would visit multiple units from each sector to study the processes used across energy consumption, water conservation, adoption of renewable energy, reducing greenhouse emissions, waste management,

material conservation etc. to understand the potential for adopting circular economy. Apart from the study, various other factors would also be included such as requirement of regulations, awareness generation, introduction of circular business models, designing if circular parks, partnerships with government, businesses, NGOs, and academia to collaborate on circular economy initiatives etc.

A platform for deliberations on circular economy is proposed wherein subject matter experts and industry representatives would be invited to lead the way in implementing circular economy solutions by recycling valuable resources and reducing the amount of waste that ends up in landfills. Discussions on processing facilities which play a crucial role in the proper management of waste and promote the circular economy by converting waste into valuable resources.

An expert in Circular Economy would be onboarded who will have knowledge about international standards and would support companies in analysing their processes and identify opportunities like reduction in raw materials, use of renewable energy, and recycling of byproducts. He would help in designing, implementing and auditing circular strategies adopted by MSMEs. The expert would be responsible to develop and implement the 5-year roadmap post the completion of the study, organize and attend conferences etc.

d. Use of ICT/Innovative technology towards project implementation

Identification of technology for implementing circular economy sector-wise would be identified in the study. The expert in circular economy would suggest process improvements which would include technology adoption and upgradation in the manufacturing processes.

e. Timelines for achievement of project deliverables and verification protocols

The duration of conducting the study will be one year. The agency would cover study of potential of adopting circular economy of 12 focus sectors and any other sector post consultation with the Department of Industries & Commerce, Punjab in 10 months and would prepare and submit the report in the last 2 months.

Circular economy conference will be conducted for awareness generation, information dissemination, knowledge sharing sessions, exchange of cross state and cross learnings.

Activity	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
Industry visits to study potential of adopting circular economy	■	■	■																	
Preparation of assessment Report				■																
Circular Economy Conference	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

f. Estimated impact of the project project/scheme/proposal

Major impact of the circular is on achieving the sustainable goals, which has positive effects on the economy, environment, drive employment growth across the 12 key sectors and other sectors, and society. It will lead to promotion of resource independence i.e., the reuse of local resources will lead to less dependence on imported raw materials. Reusing and recycling products would slow down the use of natural resources, reduce landscape and habitat disruption and help to limit biodiversity loss. It will also lead to reduction in total annual greenhouse gas emissions.

g. Project costing and contribution of state government towards it

Proposed Budget for the project					
Sno.	Costs Component	Units (per year)	Per unit cost (INR lakh) (per year)	No. of years	Total Cost (INR Cr)
1	Conducting the Study				0.6
2	Circular Economy Conference (Organize & attending)	4	5	5	1
3	Circular Economy Expert (INR 2 lakh/month)	1	24	5	1.2
	Total				**2.8**

The total project cost for sums to **INR 2.8 Cr** which will be borne by Government of India under the RAMP programme.

h. Plan for strengthening M&E framework pertaining to the project/scheme/proposal

To monitor the performance of the circular economy expert and measure impact of the project, following mechanism is proposed:

1. Submission of monthly progress reports basis the performance parameters or KPIs defined in guidelines and schemes by the department

2. Progress tracking using MSME digital portal to be developed under the RAMP programme

3. Progress of the project would be monitored monthly, quarterly and bi-annually in the review meetings conducted at appropriate levels.

6.14. Empowering MSMEs by enabling them to produce quality products by linking them with Testing Lab, Quality Control Centers & R&D Centers

a) Project Title: "INNOVATE Punjab: Empowering MSMEs by enabling them to produce quality products by linking them with Testing Lab, Quality Control Centers & R&D Centers.

b) Project Summary: The project objective is to complement the eco-system of thriving sectors of Punjab by establishing Testing Lab, R&D Centres, Quality Control Centres. This would not only help MSMEs in being competitive by producing quality products but also foster innovation and R&D culture in the State leading to advancement of Micro, Small, and Medium Enterprises (MSMEs) within Punjab. This project strives to create cutting-edge facilities dedicated to promote research for product development, create adequate testing infrastructure, & create know how of quality control tools & technique among MSMEs to effectively tackle the challenges faced by MSMEs in sectors including Machine/Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture Implements, Pharmaceuticals, Engineering Goods, Auto & Auto Components and ESDM (emerging sector) and one potential / sunrise sector for the State of Punjab. Through strategic partnerships, the adoption of advanced technologies, skill enhancement initiatives, and unwavering support for innovation, the project aims to empower Punjab's MSMEs, catalyzing their growth and contributing significantly to the state's economic prosperity.

c) Understanding the Problem Statement: The Micro, Small, and Medium Enterprises (MSMEs) face challenges in terms of accessing market, one of the reasons being concerns in the mind of buyers regarding quality of product. In most of the cases, the MSMEs are not able to produce the requisite quality certificate in absence of their linkages with the testing labs and get the quality certification. To address these challenges, the project seeks to establish dedicated R&D Centres, Testing Lab for the various sectors that will serve as a hub for innovation, research, and collaboration among MSMEs. By providing a platform where businesses can access cutting-edge technology, testing facilities, mentorship, and training, the project aims to propel Punjab's MSMEs toward sustainable growth and global competitiveness.

d) Alignment with RAMP Objectives: One of the DLIs under RAMP is to enhance the Market access of MSMEs for which the most important factor is product quality and having requisite certificate required to market the product in national & international market. This project would help achieve RAMP objective by strengthening the ecosystem as:

- **Fostering Innovation:** The project's central focus is on establishing R&D Centres for various sectors which would be instrumental for product development and act as a critical driver for MSME growth. By providing a collaborative environment for research and development, the project directly supports the RAMP's innovation objectives.

- **State of Art Testing Centres:** The project promotes the adoption of advanced technologies by offering MSMEs access to modern testing equipment and research facilities. This aligns with the RAMP's goal of enhancing technology adoption within manufacturing industries.

- **Promoting Collaboration:** The extensive focus on Research & Quality would promote collaboration between MSMEs, industry associations, research institutions, and academia, aligning with RAMP's aim to promote collaboration within the manufacturing ecosystem.

e) Approach and Methodology: All the MSME in the various sector would be linked to the testing labs and encouraged to get their product tested in the Lab, to increase acceptability in the market. Testing would be provided at nominal cost and can be customized as per the requirement of the MSME. The project's approach

and methodology involve several strategic steps to ensure the successful establishment and operation of the R&D Testing Lab:

1. **Viability Assessment**: To establish a testing lab, a crucial preliminary step involves conducting a comprehensive survey to pinpoint an appropriate location, whether it be a suitable plot of land or an existing institution. This preliminary research is a prerequisite for creating a robust feasibility report and a Detailed Project Report (DPR), which are integral components of the process. These reports provide a detailed analysis of the project's potential success, outlining the technical, financial, and operational aspects that will shape the foundation of the proposed testing lab.

2. **Infrastructure Setup:** The project will start with the development of a modern and well-equipped infrastructure, including the construction and outfitting of the R&D Testing Lab. This will involve procuring the necessary equipment, furniture, and technological infrastructure required to support research, development, and testing activities.

3. **Stakeholder Engagement:** The project will engage with key stakeholders such as MSMEs, industry associations, research institutions, academia, OEMs and large buyers. Stakeholder engagement will be essential for understanding sector-specific needs, forming partnerships, and fostering collaboration.

4. **Industry-specific Innovation Cells:** To cater to the diverse needs of different industry sectors, the project will establish specialized innovation cells within the R&D testing Lab. These cells will offer sector-specific support, expertise, and resources.

5. **Skill Training for Quality Control:** The project will organize workshops, training programs, and skill development sessions to impart knowledge about quality control tools & techniques. This will empower entrepreneurs to navigate challenges and seize opportunities effectively.

6. **Use of Advanced Technology**: The R&D Testing Lab will house advanced testing equipment that MSMEs can use for product testing, quality assurance, and research. The integration of technology will facilitate innovation and improve product quality.

7. **Digital Platform Implementation:** The project will implement an integrated digital platform to facilitate communication, collaboration, and project management among stakeholders. This platform will support virtual workshops, webinars, knowledge sharing, and data analytics.

8. **Collaboration Ecosystem** The project will establish strong partnerships with industry associations, research institutions, universities, and government bodies. This ecosystem will enable knowledge exchange, joint research initiatives, and resource sharing.

f) Proposed Project Design, Concept, Feasibility, Viability The project's design encompasses three main components, each tailored to address the unique challenges faced by MSMEs in different industry sectors:

1. **R&D cum Testing Lab:** This component involves the establishment of a cutting-edge R&D Testing Lab equipped with state-of-the-art testing equipment. The lab will serve as a resource hub for MSMEs to conduct product testing, research, and quality assurance. The lab's infrastructure will be designed to accommodate various testing requirements across different industries such as Textile, Agri and Food Processing, Sports, Automobile, Power Tools, and Machine Tools.

2. **Industry-specific Innovation Cells:** The project design includes the creation of dedicated innovation cells for each of the targeted industries. These cells will house experts with industry-specific knowledge and experience, enabling MSMEs to receive tailored support and guidance.

g) Feasibility and Viability The feasibility and viability of the project are supported by several factors:

Demand: The strong demand for advanced technology adoption, innovation support, and quality enhancement among Punjab's MSMEs creates a favorable environment for the project.

Sector Diversity: The inclusion of diverse industry sectors ensures the project's relevance and impact across a wide range of businesses.

Collaboration: The project's collaboration ecosystem, involving industry associations, research institutions, and academia, enhances its feasibility and sustainability.

Government Support: The alignment with the RAMP initiative reflects government backing and commitment to boosting the MSME sector's growth.

Market Potential: Successful innovation can lead to market-ready products, improved competitiveness, and increased revenue for MSMEs.

Skilled Workforce: Punjab's skilled workforce provides a strong foundation for implementing technical programs and research initiatives.

Preliminary need assessment of requirement of testing labs for some of the thrust sectors are elucidated below:

Bicycle Lab: The Indian bicycle industry is the world's second largest after China, accounting for 10% of global production. Valued at about USD 1.3 billion, it manufactures nearly 23 million bicycles annually, providing employment to nearly 1 million people. Punjab holds an 80% share in India's bicycle production, with Ludhiana being the primary manufacturing hub producing 40,000-50,000 bicycles per day. Ludhiana is popularly known as the 'Bicycle Capital' of the country.

The industry experiences a 5% annual growth rate, mainly catering to domestic markets, with exports representing only around 5% of total production. The product mix includes basic roadster bicycles (48%), medium-to-high-end bicycles (39%), children's bicycles (13%), and a recent venture into E-bikes.

The industry relies on Micro, Small, and Medium-sized Enterprises (MSMEs) for components and accessories, while larger manufacturers focus on design, assembly, and marketing. The rise of electric bicycles necessitates testing facilities for safety and performance, and manufacturers' need to adopt modern manufacturing processes for efficiency and quality. The transition from voluntary to mandatory standards is proposed to address substandard products and ensure safety. The Research and Development Centre for Bicycle in Ludhiana plays a pivotal role in providing testing and certification services.

However, the bicycle sector and its R&D centre in Ludhiana faces various challenges such as:
- ✓ The industry mainly produces basic steel roadster bicycles (for government tenders), children's bicycles, and a limited volume of premium bicycles (with imported parts), which are not export quality hence, they are losing out their share in global trade.
- ✓ The global market demands bicycles that are aesthetically and technically superior, made from high-end materials, with multiple-speed settings and special components from specific brands. Despite being the world's second-largest bicycle industry by volume, manufacturers face several demand and supply-related barriers in meeting global demand.

It clearly presents a need for Standardization as per International Standards, which can be catered through existing R&D centre in Ludhiana by strengthening the Testing & Certification facility of Ludhiana, for which there is a need to create a state-of art testing lines as to issue certification as per international quality standard requirement. This will lead to the development of superior bicycles and components, meeting exportable standards, domestic supply requirements, and achieving production

efficiency. Certifications and reports such as: Product Testing and Certification Reports, Certificate of Compliance, Material Analysis Reports etc. would be provided by the proposed laboratory.

These are the major tests to be done in Lab for Bicycle:

1. Complete Bicycle - Braking performance Test
2. Steering assembly - Static strength and security tests
3. Handlebar stem- Lateral bending test
4. Handlebar and stem assembly – Lateral bending test
5. Handlebar stem - Forward bending test
6. Handlebar to handlebar stem – Torsional security test
7. Handlebar stem to fork steerer - Torsional security test
8. Bar end to handlebar – Torsional security test
9. Aerodynamic extensions to handlebar – Torsional security test
10. Handlebar and stem assembly – Fatigue test
11. Frame – Fatigue test with pedalling forces
12. Frame – Fatigue test with horizontal forces
13. Frame – Fatigue test with a vertical force
14. Suspension Fork - Tyre clearance test
15. Suspension Fork - Tensile test
16. Front fork – Static bending test
17. Front fork – Bending fatigue test
18. Wheel/tyre assembly – Static strength test
19. Wheel retention Test
20. Pedal – Static strength test
21. Drive system – Static strength test
22. Crank assembly - Fatigue test
23. Saddle/seat-post – Security test
24. Saddle – Static strength test
25. Saddle and seat-post clamp – Fatigue test
26. Seat-post – Fatigue test
27. Road test of a fully assembled bicycle

Major equipment required for Bicycle Labs are given below:

1. Dynamic / Fatigue testing Machine
2. Static & Torque Testing Machine
3. Brake/Road Testing Machine
4. Photometry Lab - Goniophotomer Set up
5. Goniofix
6. Photometer I
7. Photometer II
8. Power Control Station
9. Power Source I
10. Power Source II
11. License Plates Lamps Testing
12. Flashmeter
13. Software
14. Goniometer GO-H 1400 complete set-up

Food Testing Lab: The Food Processing Sector in Punjab is characterized by its diverse culinary heritage and unique products and is home to numerous MSMEs. However, these enterprises often struggle with maintaining consistent product quality, adhering to food safety regulations, and gaining consumer trust. Limited access to advanced testing facilities for nutritional analysis, shelf-life assessment, and other quality parameters further hinders their growth potential. Moreover, lack of resources and expertise in research and development prevent them from innovating and introducing new products to the market. These challenges collectively limit their ability to expand, brand themselves effectively, and explore international markets. Which necessitates a need for state-of-the-art Food Testing and Research equipped with advanced equipment for quality testing, nutritional analysis, and shelf-life assessment. This infrastructure will provide MSMEs with access to certification that is required for exports. Certifications and reports such as: Shelf-Life Testing Report, Genetically Modified Organism (GMO) Testing Report, Microbiological Analysis Report etc. would be provided by the proposed laboratory.

These are the major tests to be done in Food Lab:

1. Pesticide analysis in water & food
2. Identification of microbes in water & food
3. Sterilization condition
4. Determine textual parameters of fresh and processed fruits & vegetables products.
5. Evaluate equilibrium moisture content.
6. Biochemical Analysis
7. Gluten Analysis
8. Shelf-life studies of packaged foods

Major Instruments for food Testing Lab are given below:

1. GC-MS
2. GC-MS/MS
3. HPLC
4. LAICP-MS
5. ICP-MS
6. MALDI-MS
7. MALDI-MS/MS
8. QTRAP-MS
9. QTRAP-MS/MS
10. QTOF-MS
11. QTOF-MS/MS
12. HPTLC
13. High Speed Centrifuge
14. Ultra- Centrifuge
15. Differentials Scanning Calorimeter
16. FESEM Imaging
17. FESEM EDAX Point Analysis
18. FESEM EDAX Point Mapping
19. FESEM EBSD per sample (40 minute per sample
20. AFM per sample
21. TEM imaging
22. TEM elemental analysis

23. TEM EDX
24. Circular dichroism
25. Confocal microscope imaging (per sample)
26. Confocal microscope airy scan (per sample)
27. Laser capture microdissection (per sample/hour)
28. TGA (per sample/hour)
29. DSC (per sample/hour)
30. ITC (per sample/hour
31. Thunder Microscope (Florescent Stereo Microscope)
32. Stereo Microscope
33. Histostation
34. Cryo microtome
35. Upright Florescent Microscope
36. Flowcytometry

Sport Goods Lab: In the context of Punjab's sports industry sector, the approach to testing and certification entails a strategic collaboration with sports equipment manufacturers and industry associations. Sports goods industry is one the most prominent industry established in Jalandhar. The top products manufactured and exported from are inflatable balls, hockey sticks and balls, cricket bats and balls, boxing equipment, fishing equipment, indoor games like carrom and chess boards and different kinds of protective equipment. This partnership aims to gain an in-depth understanding of the unique testing requirements inherent to the sector. The methodology revolves around crafting a holistic testing framework that encompasses vital aspects such as safety, durability, performance, and conformity to global benchmarks.

To achieve this, specialized testing equipment will be procured, tailored to cater to various sports equipment categories such as helmets, protective gear, and balls. This technology will form the foundation for executing rigorous testing protocols. To ensure the efficacy and relevance of these protocols, close engagement with experts from the sports industry and actual athletes will be a key feature. Their insights will guide the design of tests that accurately simulate real-world scenarios, validating the performance and safety of sports equipment.

Ultimately, this approach and methodology synergize collaboration, specialized equipment, expert input, and adherence to international standards to establish a credible testing and certification process for Punjab's sports industry, thereby enhancing the quality and safety of sports equipment and fostering industry growth. Certifications and reports such as: Sports Equipment Testing Report, Apparel and Footwear Testing Report, Material Testing Report etc. would be provided by the proposed laboratory.

These are the tests which would be conducted in the Lab for Sport Goods:

1.) Impact testing machine for helmets.
2.) Impact testing machine for protective equipment like leg guards, gloves etc.
3.) Test for determining the tensile/shear/bending strength.
4.) Test for determining the straightness.
5.) Load structures
6.) Polymer Testing
7.) Mechanical Testing
8.) Chemical Fumes
9.) Coating Thickness, Identification of materials
10.) Vapour transmission for sports garments
11.) Thermal and water-vapour resistance under steady-state conditions

12.) Chromium VI, Formaldehyde content

13.) Determine the fatigue property for Racket

14.) Determine the fatigue property for Racket

15.) Determine the compression property for Shuttle Cock

16.) Determine the Torsional property for Racket

17.) Determine the Strength property for ball

18.) Determine the Rebound property for Ball

19.) Determine the compression property for Ball

20.) Determine the Hardness property for Ball

21.) Determine the Sphericity property for Ball

22.) Determine the adhesive property for Shuttle Cock

23.) Determine the drop property for Racket

24.) Determine the Impact property for Badminton Racket

Major equipment required for Sports Lab are given below:

1.) Load structures-For testing safety of helmets.

2.) Electrodynamic machine for tensile compression, bending, peel, shear, friction & other mechanical testing-For testing bending strength of bats, leg guards

3.) Actuators-for testing straightness of cricket bats, baseball bats.

4.) Electromechanical actuators-For determining the center of gravity of equipment's like cricket bats, baseball bats, leg guards.

5.) Load structures-to be used as fixtures for other machines

6.) Circumference Tester

7.) Rebound Tester

8.) Water absorption Tester

9.) Shape and size retention M/c

10.) Analytical Balance

11.) Microscope for the analysis magnification at least 50-200x

12.) Pressure Gauge (As per FIFA Standards)

13.) Laboratory Accessories Set

14.) Artificial Ageing Apparatus

15.) Cricket Ball Testing Set as per ICC Norms

16.) Computer with UPS

17.) GC MS/MS

18.) FTIR

19.) Universal Testing Machine

20.) Fume Hood Chamber

21.) WDXRF

22.) MVTR

23.) Thermal Transmission (ISO 11092)

24.) HPLC

25.) UV Spectrophotometer

26.) Racket Reciprocating Fatigue Tester

27.) Racket Fatigue Tester

28.) Static Compression tester (Shuttle Cock)

29.) Racket Torsional Tester
30.) Tennis ball Strength Tester
31.) Tennis ball rebound Height Tester
32.) Tennis ball Compression tester
33.) Tennis ball Hardness Tester
34.) Ball Sphericity   Tester
35.) Adhesive   Strength Tester (Shuttle Cock)
36.) Racket Drop Test
37.) Badminton Impact testing machine

Textile Lab: Forge partnerships with textile manufacturers and industry associations in Punjab to gain insights into the specific testing needs of the region's textile products. Develop a comprehensive R&D Testing lab focusing on fabric quality, colorfastness, strength, and compliance with relevant standards. Acquire cutting-edge testing equipment for fabric analysis, color measurement, tensile strength testing, and other textile quality parameters. Collaborate with textile experts and researchers to tailor testing protocols to address the unique characteristics of Punjab's textiles. Establish a certification process that validates compliance with national and international textile standards, enhancing the marketability of Punjab's textile products and fostering industry growth. Certifications and reports such as: Product Testing and Certification Reports, Certificate of Compliance, Material Analysis Reports etc. would be provided by the proposed laboratory.

These are the major tests to be conducted in Lab for Textile Sector:
1.) Air permeability
2.) Tensile Strength & Elongation
3.) Tearing Strength
4.) Vertical Permeability to liquid without load
5.) Water Vapor Transmission Rate Tester
6.) Measures the amount of test liquid which runs down a non-woven test piece.
7). Resistance of fabric to surface wetting
8.) Resistance of fabric to artificial shower
9.) Measures rewetting properties of nonwoven cover stock.
10) Thermal Resistance of continental quilts.
11.) Measures abrasion resistance of fabric by weight loss.
12.) Vertical Flammability of Fabric
13.) Time Required for complete wetting.
14.) Amount of Liquid that specimen can hold after a period of immersion and drainage.
15.) Determines the rate of vertical capillary rise in a specimen strip suspended in a liquid.
16.) Electrical Resistance
17.) Measures thickness of Synthetic films, metal foils and paper
18.) Measures simple viscosity at a given speed or shear rate. Measures flow properties   with a flow curve at a hear rate up to 1200 sec1.
19.) Measures Static and Dynamic contact angle of any fluid with fabric by sessile and captive method. Measures surface free energy, surface & interfacial tension
20.) Measures force, elongation, tenacity, preloading, tenacity at certain elongation, young modulus, work, NDR of fibre
21.) Measurement of PAR Value and Rate of photosynthesis and related parameters
22.) Dust filtration efficiency
23.) Measures the length of time it takes for the adhesive sample to fail in shear mode.

Major Instrument required for Textile Lab are given below:

1. TexTest Air Permeability Tester FY3300
2. UTM-Admet/ Tensile Test
3. Water Permeability Tester GE-TE Flow
4. MOCON WVTR Tester
5. WIRA Run-off Tester
6. WIRA Spray Rating Tester
7. AATCC Shower Tester
8. Lenzing Lister Wetback
9. WIRA TOG Tester
10. Taber Abrasion Tester
11. Paramount Vertical Flammability Tester
12. WIRA Liquid Absorbency Time
13. WIRA Liquid Absorbency Capacity
14. WIRA Liquid Wicking Rate
15. Thymus Surface Resistance Tester
16. Lensing Film Thickness Tester
17. Brookfield Rheometer
18. Data physics Contact Angle Meter
19. Lensing Vibrodyne
20. Lecor Photosynthesis Meter
21. Palas Filter Test Rig
22. Tex Test Air Permeability Tester FY3300
23. Shear Tester

Auto Parts & Hand Tools Lab: Collaborate with auto manufacturers, component suppliers, and automotive associations in Punjab to identify sector-specific testing needs. Establish an R&D Testing lab catering to vehicle safety, emissions, performance, and adherence to global automotive standards. Procure advanced testing equipment for vehicle crash testing, emission analysis, engine performance evaluation, and durability assessments. Engage with automotive engineers and experts to develop testing protocols aligned with the auto industry's specific challenges in Punjab. Implement a certification process that confirms vehicles' compliance with safety and environmental regulations, bolstering consumer trust and promoting the growth of Punjab's auto sector. Establishing an R&D Testing lab which cater the need of hand tool industry that plays a crucial role in ensuring the quality, functionality, safety, and innovation of hand tools. Forming partnerships to access expertise and share research insights. The focus should be on to invest in a range of testing equipment for materials analysis, durability testing, safety assessment, and performance evaluation. Implement a certification process that is needed in hand tool testing labs like ISO/IEC 17025, NABL (National Accreditation Board for Testing and Calibration Laboratories).

These are the major tests & certifications to be done in Auto Parts & Hand Tools:

1. Hardness measurement of shallow surface treated components / products.

2. Surface coating thickness measurement up to 3 layers on metal, plastic, glass substrate.

3. Failure analysis of auto-components, hand tools, fasteners, and general engineering component / product.

4. Creation of facility for prevailing torque, clamping load and its associated coefficient of friction measurement in fasteners assemblies.

5. Establishment of RoHS (Restriction of Hazardous Substances) / REACH (Registration, Evaluation, Authorization and Restriction of Chemicals Analysis Lab) testing facilities for detection of the hazardous substances traces, like the Polycyclic Aromatic Hydrocarbons (PAHs) content, Phthalates, and other heavy elements like Pb, Cd, Cr, Hg, Br, As, Sb as per the requirement of European Union Norms.

6. Quality Management System accreditation as per as per international norms ISO 17025 (NABL), European / Global Norms for RoHS / REACH analysis and product certification from Bureau of Indian Standards (BIS) for testing of Steel, Hand Tools, fasteners, and other light engineering products.

The major instrument and machinery require for Auto & Hand Tool Lab are given below:

1. Computerized Micro Vickers - Knoop hardness tester with complete accessories and std. blocks
2. Nano Indentation hardness tester
3. High Resolution Advance Digital Microscope
4. Handheld XRF Analyzer
5. Scanning electron microscopy
6. Solar Simulation (Environmental and Weathering) Chamber
7. Roundness / Cylindricity tester
8. Vision Measuring system.
9. Digital Tool Maker Microscope
10. Torque, Tension Load, and its associated coefficient of friction measurement test equipment.
11. UTM and FTM machines to widen the scope of the Institute in life assessment / endurance test of the auto component, hand tools and Varieties of Fasteners also.
12. Upgradation of existing Servo hydraulic controlled UTM and FTM machine to latest controller with software and computerized control from its OEM (MTS).
13. Equipment for Reach/ROHS analysis Labs: Atomic Absorption Spectroscopy, ICP Spectrometer; UV Spectrometer, Gas Chromatography and Mass spectroscopy and interrupted power supply system to handle precision equipment / instruments of labs.
14. Microbalance (6 Digit) with vibration free table.
15. Ultrasonic water bath with temperature control (required temperature is 60-65° C)
16. Soxhlet Apparatus with water chiller along with Thimbles.
17. Nitrogen Evaporator along with Standby Nitrogen cylinder supplies or Nitrogen generator.
18. Rotary evaporator with Vacuum Pump and Water Chiller
19. Water Bath
20. Horizontal Shaker
21. Fume Hood

Setting up Lab for Pharmaceutical Products- The establishment of a Pharmaceutical Product Testing Lab in Punjab is of paramount importance for ensuring the safety, efficacy, and quality of pharmaceuticals manufactured in the region. This cutting-edge facility will be equipped with advanced analytical instruments, staffed by skilled scientists and technicians, and designed to meet international standards. The lab's primary focus will be on conducting comprehensive testing of pharmaceutical products, including medicines, vaccines, and medical devices. This will encompass assessments of chemical composition, potency, purity, and adherence to stringent regulatory guidelines. Collaborations with local pharmaceutical companies and regulatory bodies will ensure that testing protocols align with regional and global requirements.

Certification from this lab will not only enhance the credibility of pharmaceutical products originating in Punjab but also promote public health and patient safety. It will facilitate market access, encourage research and development investments, and bolster the growth of the pharmaceutical industry in the region. This initiative underscores Punjab's commitment to pharmaceutical excellence and contributes to its reputation as a hub for high-quality healthcare solutions.

These are the major tests & certifications which shall be undertaken at the Pharmaceutical Lab:
1.) Material analysis
2.) DSC analysis
3.) Chemical tests
4.) Physical characterization
5.) NMR testing
6.) FTIR testing
7.) Assay
8.) Identification
9.) Uniformity of content / uniformity of dosage units
10.) Disintegration test
11.) Friability test
12.) Single and multi-point dissolution testing
13.) Related substances and impurities
14.) Microbiological limit tests
15.) Pathogens
16.) Sterility testing
17.) Pyrogen/Endotoxin testing
18.) Preservative efficacy testing
19.) Particle counts for large and small volume parenterals
20.) Osmolarity measurement
21.) Particle size distribution
22.) Viscosity measurements

The major instrument and machinery required for Pharmaceutical Lab are given below:

1. Refractometer
2. Potentiometer
3. Ph Meter
4. Water generation system with TOC
5. Visco meter
6. Texture Analyser
7. Hardness Tester
8. Dissolution Apparatus with Auto sampler
9. Desiccator
10. Rota Evaporator
11. Auto Titrator
12. Media Destruction Autoclave Vertical
13. Media Preparation Autoclave Vertical
14. Microscope
15. Vertex Mixer

16. Bacteriological Incubator
17. Centrifuges
18. Hot Air Oven
19. Incubator Chamber BOD
20. Digital Colony Counter
21. Biosafety equipment

Machine/ Power Tools: The use of machines and power tools plays a crucial role in various sectors such as manufacturing, agriculture, construction, and more. These machines and tools contribute to increasing productivity, efficiency, and overall economic development. The testing labs for machines and power tools are often utilized for various testing, analysis, and quality control purposes. These testing labs play a crucial role in ensuring that the machines, power tools, and products manufactured within Punjab's industries meet safety, performance, and regulatory standards. Collaborate with the Quality Control Testing labs use machines and power tools to perform quality control tests on raw materials, components, and finished product. Implement a certification process that will do the Performance Testing Machines and power tools are subjected to performance testing to evaluate their speed, accuracy, efficiency, and overall functionality.

Agricultural Implements: Agricultural implements play a vital role in Punjab's agriculture industry, due to its significant contribution to the country's food production. Punjab's agriculture is characterized by its focus on high-yield crop production, and the use of various agricultural implements like tractor, Harvester, Plows, seed drills. Development of R& D Testing Labs is a strategic process that involves careful planning, resource allocation, and continuous improvement. Implement a certification process like ILAC (International Laboratory Accreditation Cooperation, ISO/IEC 17025.

Engineering Goods: In the context of Engineering good for Punjab Industry it plays a vital role in various industries in Punjab, contributing to economic growth and technological advancement. Engineers who design and develop innovative equipment, systems, and mechanized solutions to enhance productivity and sustainability, implement certification processes like test results, inspection reports, manufacturing specifications, and quality control records.

ESDM Sector: The Electronic System Design and Manufacturing (ESDM) sector encompasses a wide range of activities, from electronics manufacturing and semiconductor fabrication to research and development of innovative electronic products. ESDM experts and researchers tailor testing protocols to address the unique specification for Punjab Industry. To certify the same, certification processes like ESDM Quality Assurance Certification, ESDM Compliance Certification, ESDM Product Excellence Certificate etc. are established.

h) Use of ICT Initiatives: The project incorporates Information and Communication Technology (ICT) initiatives to enhance its effectiveness:

Integrated Digital Platform: An integrated digital platform will serve as a hub for collaboration, communication, and project management. This platform will facilitate virtual workshops, webinars, online forums, and networking opportunities.

Online Project Management: The digital platform will enable real-time monitoring of project progress, resource allocation, and communication among stakeholders.

Virtual Collaboration: The platform will support virtual collaboration spaces where MSMEs, experts, and mentors can connect, share knowledge, and collaborate on projects.

Data Analytics: The project will leverage data analytics to gather insights from testing processes, market trends, and innovation metrics. These insights will inform decision-making, resource allocation, and strategy refinement.

i) Impact of the Project: The establishment of an R&D Testing Lab Center for Punjab MSME growth across various industries is expected to have a significant and multi-faceted impact on the state's economy, the MSME sector, innovation ecosystem, and overall industrial development. The project shall impact **60,000 MSMEs per year** across the 12 focus sectors (considering 20 certification provided by lab in a day for 250 working days in an year). The following are the potential impacts of the project:

- **Accelerated MSME Growth:** MSMEs will have access to cutting-edge technology, modern testing equipment, and advanced research facilities, enabling them to develop high-quality products and solutions. The Testing Lab will provide mentoring, business guidance, and access to funding networks, fostering a conducive environment for startups and emerging businesses to grow.

- **Enhanced Innovation and Product Development:** The project will nurture innovation through sector-specific innovation cells, collaboration spaces, and expert mentorship, leading to the creation of novel and competitive products. MSMEs will have opportunities to collaborate with research institutions, universities, and industry experts, resulting in breakthroughs and new intellectual property.

- **Improved Product Quality and Competitiveness:** The R&D Testing Lab will enable MSMEs to conduct thorough product testing, quality assurance, and compliance checks, leading to higher product quality and adherence to international standards. Enhanced product quality will enable MSMEs to compete effectively in national and international markets.

- **Technology Adoption and Upgradation:** The project's focus on technology integration will encourage MSMEs to adopt advanced manufacturing practices, leading to increased operational efficiency and productivity's will be exposed to the latest technological trends and developments, positioning them as early adopters of emerging technologies.

- **Job Creation and Skill Enhancement:** The project's skill enhancement programs and training initiatives will contribute to upskilling and reskilling the workforce, resulting in a more skilled and knowledgeable labour pool. As MSMEs grow and expand, they are likely to create new employment opportunities, thus contributing to job creation and reduced unemployment rates.

- **Strengthened Industry-Academia Collaboration:** The project's collaborative ecosystem will bridge the gap between academia and industry, fostering research partnerships, knowledge sharing, and joint innovation initiatives. Industry-specific innovation cells will facilitate seamless collaboration between MSMEs, academia, and experts.

- **Increased Entrepreneurial Ecosystem:** The R&D Testing Lab Center will serve as a hub for aspiring entrepreneurs, providing them with a platform to transform their innovative ideas into market-ready products. The project will create a culture of entrepreneurship, encouraging more individuals to start their own businesses and contribute to economic growth.

- **Enhanced Export Potential:** As MSMEs improve their product quality, adopt advanced technologies, and innovate, their ability to access international markets will increase, leading to higher exports from Punjab.

- **Economic Growth and Diversification:** The project's impact on the MSME sector will contribute to Punjab's economic growth by generating increased revenue, taxes, and overall economic activity. Diversification of the state's industrial base will reduce dependence on specific sectors and contribute to a more balanced and resilient economy.

- **Long-Term Sustainability:** The project's continuous monitoring and evaluation framework will ensure that its initiatives remain aligned with the evolving needs of the MSME sector and the broader economic context. By fostering a culture of innovation and collaboration, the project's impact is likely to extend well beyond its initial implementation phase.

Therefore, the establishment of an R&D Testing Lab has the potential to transform Punjab's MSME landscape by driving innovation, enhancing product quality, fostering collaboration, and contributing to economic growth. By addressing the challenges faced by MSMEs and providing them with the necessary tools, resources, and support, the project can create a thriving ecosystem of dynamic businesses, leading to a brighter future for Punjab's industries and economy.

j) Timelines of the Project: The project timeline is divided into several phases, and it is for 5 years:

Months 1-12: Infrastructure Setup and Equipment Procurement
Months 12-24: Skill Enhancement Programs
Month 24 onwards: Full-fledged Operation

Timelines of the Project and the Month	M1 – M6	M6 Onwards
• Infrastructure setup, equipment procurement, lab design, and the recruitment of key personnel		
• Skill Enhancement Programs -The lab will commence operations, offering testing services to MSMEs. Capacity-building workshops, training sessions, and mentorship programs will run in parallel. Collaborative research projects will be initiated to encourage innovation in product development.		
• Full-fledged Operation The project will focus on sustainability, fine-tuning its operations, and expanding its impact. Lessons learned and feedback from MSMEs, mentors, and stakeholders will be incorporated for continuous improvement.		

k) Cost of the Project: The estimated cost of the project includes various components:

Sr. No.	Particulars	Tentative Amount (In Cr.)
I.	Upgradation of Bi-Cycle Testing Lab cum R&D Centre	10
II.	Setting up Food Processing and Agri -Testing Lab and Certification Centre	7
III.	Setting up Textile Testing Lab and Certification Centre	2
IV.	Setting up Hand Tool & Auto Parts Testing Lab and Certification Centre and Setting up Power Tool Testing Lab and Certification Centre	25
V.	Setting up Agriculture Implements Testing Lab & Certification Centre and Setting up Engineering Goods Testing Lab and Certification Centre	16

VI.	Setting up Lab for Pharmaceutical Products	12
VII.	Setting up Lab for ESDM Sector	10
VIII.	Setting up Sports Testing Lab and Certification Centre	12
IX.	One potential / sunrise sector for the State of Punjab	10
	Total Cost	**104 Cr.**

State Government Contribution: INR 50 Cr

1. Under the Industrial Policy of Punjab 2022:
(a) Incentives for Access to Technology - 50% of the cost subject to maximum of Rs. 25 lakhs for adopting technology from a recognized National Institute once during the validity period of the Policy.
(b) Additional support to ZED scheme of GOI - Reimbursement of 50% of expenses
subject to maximum of Rs. 5 lakhs incurred on plant and machinery/testing equipment for obtaining at least gold category status under ZED scheme to First 100 units during the validity Period of Policy

2. Land and infrastructure facilities for setting up these facilities will be provided by the State Government.

I) Monitoring and Evaluation Framework: To ensure the project's success and impact, Overall project intervention shall be monitored through MSME digital portal. And a comprehensive monitoring and evaluation framework will be implemented:

Regular Progress Reports: Quarterly progress reports will provide updates on infrastructure development, equipment procurement, program implementation, and participant engagement.

Key Performance Indicators (KPIs): KPIs will be established to measure the project's impact. These may include the number of startups incubated, patents filed, successful product launches, revenue generated, and employment created.

Impact Assessment: Periodic assessments will evaluate the project's contribution to MSME growth, innovation ecosystem enhancement, and overall economic impact on the region.

Stakeholder Feedback: Regular feedback from MSMEs, mentors, experts, and other stakeholders will provide insights into the effectiveness of the project's initiatives and areas for improvement.

Adaptive Management: The project's monitoring and evaluation findings will inform adaptive management strategies, allowing for course corrections and adjustments based on emerging challenges and opportunities.

In conclusion, the project to establish an R&D Testing Lab for Punjab's MSME growth aims to transform the state's manufacturing landscape by fostering innovation, enhancing product quality, and accelerating the growth of diverse industry sectors. With a comprehensive approach, strategic partnerships, technology integration, and continuous monitoring, the project envisions a future where Punjab's MSMEs thrive, contribute to economic development, and stand out in the global market.

6.15. Deployment of "Vyapar Sahayak" to aid and support to MSMEs across districts in Punjab in availing the various benefits extended by Central & State Governments

1. **Project Title:** Deployment of Vyapar Sahayak (business facilitators) to aid and support to MSMEs across districts in Punjab in availing the various benefits extended by Central & State Governments

2. **Project Summary:** The Primary Objective of this project is to uplift the performance of MSMEs by making them avail benefits of schemes tailored as per need of MSME sector through strategic collaboration with experts and stakeholders. The aim is to increase the counts of MSMEs to make them avail as many incentives as possible which are imperative for their growth. The project's direction stems from a comprehensive survey that unveiled a glaring reality a significant number of MSMEs are unable to harness the benefits of existing schemes. As clearly came out in the survey report that, more than 80% of MSMEs are not aware about the schemes with only 15-18% MSMEs having availed benefits under any of the scheme. The reasons as responded in the survey includes limited understanding of existing schemes, perception about application processes complication, absence of policy experts especially in Micro & Small units.

To address the issues, the introduction of Vyapar Sahayak is pre-eminent. This inclusion is strategically designed to bridge the knowledge gap and streamline the application process for MSMEs. Vyapar Sahayak, comprising Block-Level Extension Officers (BLEOs), Small Industries Promotion Officers (SIPOs), and skilled professionals, will be strategically deployed based on demand. Their role is multifaceted: they will guide MSMEs through complex documentation, raise awareness regarding the plethora of schemes available, and ensure that MSMEs capitalize on the 16 predefined deliverables.

The assistance offered by Vyapar Sahayak is poised to yield significant benefits for MSMEs. By simplifying processes and offering one-on-one support, they will enable MSMEs to effortlessly navigate the intricacies of schemes. This empowerment will result in a wider array of MSMEs being able to access incentives and loans, thereby propelling business growth. Furthermore, the professionals embedded within this framework will provide specialized insights, augmenting the support ecosystem for MSMEs and enhancing the efficacy of the project's objectives.

Therefore, this project constitutes a comprehensive solution that addresses the pervasive challenges confronting MSMEs in availing schemes. The engagement of experts and individuals, alongside the deployment of proficient Vyapar Sahayak, forms a cohesive strategy that addresses lack of awareness, procedural complexities, bandwidth constraints, and the absence of incentives. The project envisions a landscape wherein MSMEs are well-informed, supported, and empowered to capitalize on schemes, propelling their growth and contributing substantively to economic advancement.

3. **Alignment with RAMP Program Objectives**
   The proposed project intervention can be mapped to DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes. Through RAMP program, MoMSME intends to uplift the performance of MSMEs by addressing the chronic challenges being faced by them. The inferences from primary survey highlight the need for handholding support for MSMEs for business development and technical services. Moreover, women MSMEs highlighted the need for better awareness of MSMEs programme to avail the existing benefits under central and state MSME schemes.

4. **Understanding of the Problem**
   The Primary survey of the surveyed units across all the districts of Punjab and Focused Group Discussion with more than 50 Industry associations indicated towards the ground challenges MSMEs are facing with

respect to scheme utilization and availing the benefits of the MSME central and state schemes. The challenges can be outlined as below: -

i. **Absence of One stop solution for all the Schemes:** MSMEs are often unaware of the existing schemes for them. While new schemes get launched, the limited or knowledge leads to low penetration of the schemes amongst the MSMEs in Punjab.

ii. **Lack of understanding of the scheme:** MSMEs are mostly entrepreneur driven business hence they are stuck with the core business matrix and do not devote much time towards tracking the schemes and deciphering the benefits which may potentially provide a significant boost to their businesses. There at times exists apprehension for availing benefits under government schemes.

iii. **Complex Application Process:** The numerous documents required for the approval process involvement of various professionals such as Charter Accountant, Architect, Company Secretariat, Valuation Advisor along with certain certificates from other government departments or banks prove to be cumbersome for the units.

5. Proposed Project design, concept, feasibility, and viability

To address the above challenges, targeted multipronged soft interventions are required to increase the coverage of the MSMEs which ultimately would help the units in gaining wider market access, improve their efficiency and scale up their operations. As realized during the pilot done in Punjab, deployment of BLEOs in the district for providing direct assistance to MSMEs increased the no. of beneficiaries significantly. Hence, there is a need to push this initiative further by deploying the more no of professionals with well co-ordinated and target oriented approach. Under the project, the significant part of payment would be linked to the successful achievement of deliverables, which would have tangible impact on the performance of MSMEs resulting in overall growth of economy through multiplier effect.

Step 1: Deployment of Vyapar Sahayak to create awareness and handhold MSMEs in availing benefits under various schemes of Central & State Government

To make MSMEs avail the benefits, there is a need of proactive unit level engagement which can be fulfilled through Feet on the Street Model, wherein, the Vyapar Sahayak would be deployed by the Dept., these would be the existing BLEOs and SIPOs across the districts who shall be responsible for providing doorstep service pertaining to govt. schemes. Each district would have an adequate number of facilitators deployed, covering maximum number of MSMEs in their district.

The project structure would be as following: -

I. At least 100 Vyapar Sahayak (business facilitators) across Punjab would be deployed basis on the no. of MSMEs in the thrust sector in the district.

II. The Mandate of the Sahayak/facilitator would be to assist MSME in availing benefits as defined as per the deliverables defined in this project. Support include MSMEs in filling form, preparing documents and help connect them with right agency in case of some hard or soft interventions and finally completion of deliverables.

III. All Facilitators would be equipped with tablets to provide instant help in form filling process.

IV. Facilitators would identify the eligible MSMEs by analyzing the Database and make a priority list to reach out. This could be done sector-wise in order to reach all sectors of the state.

Further, a target would be set for facilitators and KRAs & KPIs would be defined for them. Also, the compensation of the Vyapar Sahayak shall be based on their MSME & scheme coverage.

KRAs of Facilitators

I. No. of MSMEs getting end to end assistance on deliverables defined.

II. No. of Schemes applied by each MSMEs.

III. Avg. & Median No. of schemes applied by each MSMEs.

IV. Avg. time taken for each application.

V. No. of successful beneficiaries

Approach for Execution

The Vyapar Sahayak role would be given to BLEOs and SIPOs in the DIC office across all the districts in the state, along with hiring of professionals to fulfill the requirement. The facilitators will be deployed in the districts in proportion to no. of MSMEs in that district. Under the program, the emphasis would be to provide facilitation to MSMEs in 12 identified thrust sectors of Punjab. They would work towards identifying the MSMEs and make them take benefits under maximum no. of schemes (as per 16 deliverables defined) which ultimately would contribute towards enhancing the capabilities, competitiveness, and growth potential of MSMEs in Punjab, fostering an environment conducive to business development and innovation. These deliverables and their importance are as follows:

1) ZED Bronze Certificates: The Bronze Certificates is one of the tiers within the ZED Certification frameworks. It Signifies a significant level of commitment to quality and environmental sustainability by micro small and medium enterprises in their manufacturing processes. To achieve a bronze certificate under Zed, MSME's need to meet specific criteria related to product quality and environmental impact.

2) ZED Silver Certificates: The silver certificate is the next tier in the ZED certification hierarchy and built upon the foundation laid at the bronze level. Here's a detailed overview of the features that define silver certificates are enhanced quality management, sustainable Practices, Innovation, and research etc.

3) ZED Gold Certificates: The Gold Certificate is the highest achievement within the ZED Certificate framework. This level represents the pinnacle of excellence in terms of product quality, environmental impact, sustainability, overall manufacturing practices. To attain a gold certificate under ZED, MSME's must demonstrate an exceptional commitment to quality, innovation and environmental responsibility.

4) Hand Holding Support and Technology Upgradation Scheme for ZED Certified MSMEs: This involves providing support and guidance to MSMEs that have obtained ZED certification. The handholding support helps these businesses further improve their processes, quality, and technologies. This can lead to enhanced efficiency, competitiveness, and market presence.

5) Benefit Under lean Scheme: The Lean Scheme focuses on eliminating wastage and optimizing processes within organizations. MSMEs can benefit from this scheme by improving their operations, reducing costs, and delivering better products/services.

6) Onboarding on TREDS Platform: The Trade Receivables Discounting System (TREDS) platform allows MSMEs to manage their invoices and receivables efficiently. This helps in improving cash flow by enabling early payment of invoices.

7) Onboarding on GEM Platform: The Government e-Marketplace (GEM) is an online platform that facilitates procurement by government organizations. MSMEs can benefit from registering on GEM to access government procurement opportunities and expand their customer base.

8) Loan Under CGTMSE: The Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) provides credit guarantees to financial institutions, enabling them to provide collateral-free loans to MSMEs. This facilitates easier access to credit for business expansion and development.

9) Benefit under any of Central Govt. Scheme: This refers to the participation in various schemes offered by the central government to support MSMEs. These schemes could include subsidies, grants, incentives, and other forms of assistance to promote growth and innovation.

10) Benefit under other champion Schemes (Design, Digital, IPR, PMS & MA): The champion schemes have been unveiled by Ministry of MSME with the objective to modernize MSMEs' manufacturing processes, reduce wastages, encourage innovativeness, sharpen business competitiveness and facilitate their National and Global reach.

11) Benefit under any of State Govt. Scheme: Like the central government schemes, state governments also offer specific schemes to support local MSMEs. These schemes often cater to regional development needs and provide tailored benefits.

12) Assisting in Boiler Upgradation: MSMEs that use boilers in their operations might need assistance in upgrading their boiler systems to meet safety and environmental standards. This could involve guidance on technology selection, compliance, and implementation.

13) Assisting in Solar Panelization and advertisement of the policy: MSMEs in adopting solar energy solutions can lead to cost savings and environmental benefits. This might involve guidance on the installation process, available incentives, and the long-term advantages of solar energy.

14) Export Facilitation (Support in Meeting Regulatory Compliance): Exporting products can be complex due to regulatory requirements. Assisting MSMEs in meeting these compliance standards ensures their products meet the necessary regulations, allowing them to expand into international markets.

15) Onboarding for Digital Transformation Scheme: Digital transformation involves integrating technology into various business processes. MSMEs can benefit from this scheme by receiving support in adopting digital tools and technologies to enhance operations, marketing, and customer engagement.

16) Connecting with Testing Labs: Testing and quality assurance are crucial for MSMEs to ensure their products meet industry standards. Assistance in connecting with appropriate testing labs helps in validating product quality and compliance.

Below is a table detailing 16 deliverables, their completion indicators, purposes, and variables.

S.no	Deliverables for MSME's	Deliverables Completion Indicator
1.	**Bronze Certificates**	Certificate issued
2.	**Silver Certificates**	Certificate issued
3.	**Gold Certificates**	Certificate issued
4.	**Hand Holding Support and Technology Upgradation Scheme for ZED Certified**	Disbursement made

S.no	Deliverables for MSME's	Deliverables Completion Indicator
5.	**Benefit Under lean Scheme**	Disbursement under the lean manufacturing scheme.
6.	**Onboarding on TREDS Platform**	Registration on trade receivables discounting system.
7.	**Onboarding on GEM Platform**	Registration on Government e-marketplace.
8.	**Avail Loan Under CGTMSE**	Final disbursement through the CGTMSE Scheme.
9.	**Availing benefit under any of Central Govt. Schemes**	Final application disbursement under Central government schemes.
10.	**Availing benefits under any of State Govt. Schemes**	Final application disbursement under State government schemes.
11.	**Availing benefits under champion schemes (Design, Digital, IPR, PMS & MA)**	
12.	**Assisting in Boiler Upgradation**	Receiving support for upgrading the boilers with quality check.
13.	**Assisting in Solar Panelization**	On boarded for the installation of Solar Panel
14.	**Export Facilitation (Support in Meeting Regulatory Compliance)**	Support in fulfilling at least one compliance.
15.	**Onboarding for Digital Transformation Scheme**	Participating in the digital transformation scheme
16.	**Connecting with Testing Labs**	Engaging with testing laboratories.

Below is a the 12 identified thrust sectors of Punjab, which would be focused under the program:

S. No	Sector
1	Machine/Power Tools
2	Hand Tools
3	Sport Goods
4	Food Processing
5	Bicycle
6	Textile

7	Agriculture Implements
8	Pharmaceuticals
9	Engineering Goods
10	Auto & Auto Components
11	ESDM (Emerging sector)
12	Potential / sunrise sector for the State of Punjab

The facilitators would create a database of the MSMEs for their assigned district and prepare a **Unit-Scheme-Readiness matrix** to set the priorities for reaching out. The Schemes list, user manuals, checklist, and a docket with all the documents templates would be prepared by them and shared with all the MSMEs of their districts. A database of ready pool of local professionals including Charter Accountants, Architects, Business Valuer, Charter Engineers etc. would be provided by the headquarters to Facilitators.

Methodology

The Vyapar Sahayak would be paid fixed salary to assist minimum 50 MSMEs every quarter for at least 6 deliverables out of 16 deliverables defined above. These six deliverables may include Loan under CGTMSE scheme, ZED Bronze Certificate, Benefit under Champion Scheme, Benefit under Central Govt. Scheme, Benefit under State Govt. Scheme and Onboarding on GeM/TReDs platform.

Step 1: Vyapar Sahayak would publish the plan of one week in advance through the developed dashboard, which would be prepared for this program. The plan would include the name of MSMEs, target schemes, eligibility, and their readiness score.

Step 2: The facilitator would connect with the chosen MSME and would inform them about the schemes and their benefits and post consent of MSME, would be asked to arrange all the details in a week's time, to fill the application form for availing the benefits.

Step 3: Once all the information has been provided by MSME, facilitator would visit MSME premises to help them in filling & submission of application, and geo tagging would be captured in the Dashboard as a monitoring mechanism.

Step 4: Post submission of application, facilitator would do a follow up on the application and in case of queries and additional requirement by the concerned department, would help MSME in preparing and filing replies.

Step 5: In case, some hard intervention or considerable revamping is required by the MSME such as for LEAN manufacturing scheme, technology upgradation etc., Facilitator would help MSME in identifying the professional agency to execute the work and post the paperwork, get the application successfully filed.

6. Use of ICT/Innovative technology towards project implementation

Various means of ICT would be used for effective implementation, monitoring & review of the program.

- **Tablets:** This is required to equip facilitators so that he can assist MSMEs in registration and filling form by fetching and filling all documents instantly. The customized dashboard can be in-built in tablet.
- **Interactive Dashboard** with analytics features to track the KPIs achievement and with the escalation module and with the features of push messages to users be it MSMEs, Facilitators and other parties.
- **Integration of Database** through API

7. Timelines for achievement of project deliverables and verification protocols

The aim is to cover at least 1,00,000 MSMEs in five years and make them avail benefits under atleast 6,00,000 schemes. It is envisaged that, once MSME unit becomes familiar with the process of availing benefits of one scheme, minimal assistance would be required for other scheme enrolment. The timelines and deliverables are as follows:

	Y1	Y2	Y3	Y4	Y5
No. of MSME to be covered	00	25,000	25,000	25,000	25,000

8. Estimated impact of the project project/scheme/proposal

The proposal aims to impact more than **1,00,000 MSME units** in the state of Punjab that require support in getting benefits under champion schemes which would help in enhancing productivity, efficiency, and access to wider market.

9. Project costing:

Sr. No.	Particulars	Unit Cost	Tentative Amount (In Cr.)
I	Vyapar Sahayak salary: a) Salary Cost 60k per month per facilitator subject to fulfilling of target	Fixed Salary – 60,000*100*12*5 = INR 36 Cr	INR 36 Cr
II	Tablet Cost	30,000	0.30
III	Internet Cost for Tablet	18,000	0.20
IV	ICT Cost (Dashboard Development, Database creation & Integration etc.)		1.50
	Total Cost		**38 Cr. (Approx)**

Note:

1. **Costs for modifications, additional features and new development will be estimated based on specific requirements.**

2. **Costs mentioned above are estimations and may vary at the time of execution of project depending upon the actual cost of items, manpower, licenses, etc.**

3. **The above costs are exclusive of applicable taxes.**

h) Plan for M&E of the project

1. The above proposed project shall be monitored through the RAMP Monitoring portal being developed as a part of the MSME database creation. project. Coverage across each district shall be monitored and mapped across the schemes being availed in the districts. This coverage shall also be linked directly to the performance of the Vyapar Sahayak.

2. Progress of the project would be monitored monthly, quarterly and bi-annually in the review meetings conducted at appropriate levels.

6.16. Foster Institutional Capabilities and Strengthening Capacities of Government ITIs and Polytechnics in Punjab thereby creating pool of skilled resources for MSMEs

Project Summary:

The proposed intervention of assessment and upliftment of the Government Industrial Training Institutes (ITIs) and Polytechnics in Punjab, aims to conduct skill gap assessment between the requirements of the MSMEs industry and the skilled workforce made available by the institutes. The findings of the primary survey highlighted that about 70% of the respondents raised concern of unavailability of skilled labour and around 35% mentioned that the major challenge faced by MSMEs in executing their expansion plan is unavailability of the labour. Therefore total low productivity of labour is around 16.27%. Since, ITIs and Polytechnics are amongst the largest contributors towards providing skilled workforce for the industry, the proposed assessment would focus on the quality and relevance of courses to the 12 focus sectors and training on latest manufacturing technology and processes through on-the-job training and apprenticeships provided by the industry. Due importance will also be given to faculties/trainers for the uplifting of these institutions by equipping the students with the knowledge of advanced technologies and the effective way of training. Post assessment, interventions to increase sector-wise pool of skilled manpower and trainers for catering the needs of the industry would be planned and implemented over a period of 5 years. The main objective of the proposed project is to foster institutional capabilities by improving the quality of courses offered and creating pool of skilled resources for thrust sectors of Punjab through industrial trainings.

Existing Competencies for the specific theme:

In Punjab, Skill Development and Vocational Training are being strengthened on the lines envisaged by Government of India under the National Skill Development Mission. State Industrial Training Department (SITD) and Dept. of Technical Education and Industrial Training is revamping its existing ITIs under two major schemes namely Upgradation of existing ITIs into Centres of Excellence and the World Bank Assisted Vocational Training Improvement Programme. It has also proposed to set up 43 new ITIs blocks under PPP model with assistance from the Government of India.

Apprenticeship Training Scheme is a major Scheme being implemented by the Department of Technical Education and Industrial Training, Punjab Government under the Apprentices Act, 1961 enacted by the Govt. of India, National Council for Apprenticeship Training. The Act provides the regulation and control of Training of Apprentices in Industry and has objectives:

- To regulate the program of training of apprentices in the industry so as to conform to the prescribed syllabi, period of training etc.
- To fully utilize the facilities available in the industry for imparting practical training with a view to meet with the requirement of skilled manpower for Industry.

SITD and Dept. of Technical Education is also engaging Private Training Providers (PTPs) by declaring them Vocational Training Providers (VTPs) under the Skill Development Initiative (SDI). **As of now, 255 VTPs have been registered by the SITD, which include 108 Government ITIs, 54 Polytechnics & Engineering Colleges and 92 Private Vocational Training Providers.**

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives:

Result Area 2: The project aligns with **Result Area 2 which is pertaining to Enhancing Firms Capabilities.** The overall objective of the study is to identify the gaps and propose interventions and recommendations for improvement of the training courses which would in turn provide skilled resources to the MSMEs and create a pool of talented workforce to support expansion of the industry. Upgrading the quality of manpower is a crucial step towards long term objective of in increasing MSME contribution in the economy of Punjab.

Strategy for project implementation/scheme implementation with pre-defined milestone

Understanding the problem statement:

As per the findings of the primary survey, unavailability of skilled labour is a major challenge faced by the MSMEs. Even though Punjab has large number of training institutes, challenges such as competition from private education and training institutes, and online courses conducted by industry experts offered at affordable fees with placement assistance, makes it difficult for students to take up courses from ITIs. Another factor is of quality of education i.e., maintaining consistent and high-quality training programs, ensuring well-qualified and experienced trainers hired by ITIs as it becomes difficult due to the competition in the sector. Education which is relevant to the industry is one of the most critical factors for aligning training programs with the rapidly evolving needs of the industries. Setting up and maintaining modern infrastructure including laboratories, equipment, and technology, requires substantial investment. During the period of apprenticeship, the apprentices are sometimes not paid any stipend amount, however there are schemes of Government of India which can facilitate reimbursement of certain amount to the employer from the government. The factor of establishing strong ties with industries to ensure employment opportunities for graduates is also a big challenge**.**

 a. **Proposed project design, concept:**

First component of the proposed intervention program would focus on identifying the gaps in course curriculum of the ITIs & Polytechnics which can help fulfil the needs of industries of Punjab. To start with, courses related to 12 focus sectors i.e. Machine/ Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture Implements, Pharmaceuticals, Engineering goods, Auto and auto components, ESDM (emerging sector) and a potential / sunrise sector of the State of Punjab will be assessed, whether the course content will be updated and made relevant as per today's industry standards. Infrastructure and technology related gaps in classroom training, shop floor training, hands on training of equipment and method of trainings given to students would be identified. On-the-job training /apprenticeships curriculum would be studied.

The second component of the project would include addressing the challenges identified from the assessment such as:

- Introduction of new courses and revamping of present courses with help of sectoral experts, industry champions, Industries Department, Sector Skill Councils, industry associations, faculties of ITIs and Polytechnic, Department of Technical Education & Industrial Training etc.
- Use of technology and digital platforms for conducting lectures, trainings, workshops etc.
- Guest lectures and lectures specific to 12 focus sectors.
- Industry visits and mandatory apprenticeships
- Consultations and support from Sector Skill Councils and industry associations for course revamping, certifications, and placements
- Training of trainers
- Focus on creation of skilled workforce for 12 focus sectors of Punjab.
- Mentorship/Sessions with the sectoral experts and industry champions

To create skilled pool of talent, tie-ups with the industry would be focused for providing apprenticeships to the students. The amount of stipend paid to the student would be subsidized by providing grant to the industry/MSMEs by the government under this RAMP intervention.

Project feasibility:

Findings of the primary survey showed that 70% of the respondents had raised the concern about unavailability of skilled labour. Taking into cognizance the severity of problem, the feasibility of the project is supported by the strategy adopted for uplifting the quality standards of the ITIs and creating a pool of skilled manpower locally available for the industry. By aligning the curriculum with the industry requirements, the proposed intervention presents an approach which bridges the skill gaps and plays a role in advancing Punjab's MSME landscape.

Project viability:

Technical institutions such as Polytechnics and ITIs are important in creating a resource pool for MSMEs. Elevating these institutions through advanced technological education and effective teaching methods is essential. The proposed project highlights the lack of skilled labour which, in the long run can be dovetailed with apprenticeship schemes of Government of India. There are two apprenticeship schemes which enables students to earn while learning in a workplace and gives students a head start in their chosen careers. National Apprenticeship Promotion Scheme (NAPS) from the Ministry of Skill Development and Entrepreneurship (MSDE) under which, basic training is provided It includes 25% of the stipend or maximum of INR 1500 to be reimbursed to the establishments and INR 7500 is to be reimbursed (basic training cost) to the Basic Training Provider. Another scheme for apprenticeship is rolled out by the from the Ministry of Education i.e., National Apprenticeship Training Scheme (NATS). It is a one-year program which provides technical qualifications to the students. The training is provided in public sector units in the center, state as well as companies in the private sector. This scheme is only for students with technical diploma and engineering as a degree and the training would be provided for about 126 subjects.

b. **Approach and Methodology for execution/implementation**
   The **assessment would be conducted by an agency** which will be onboarded to visit a total of 200+ ITIs and Polytechnic Institutes of Punjab and prepare assessment report on the curriculum, courses, faculty and trainer availability, duration of courses, trainings, industry visits, internships, apprenticeship, infrastructure, technology, quality and relevance of courses, employment linkages, funding etc. A detailed report would be submitted at the end of the first year with comprehensive assessment**.**

   Post assessment, action would be taken on the gaps identified such as:

- **Introduction of new courses and revamping of present courses**: Modification of curriculum in consultation with sectoral experts, industry champions, Industries Department, industry associations, Sector Skill Councils and Technical Education Department etc. Requirements of industry from 12 focus sectors and sectors with PLI schemes would be prioritized first. Accordingly, the duration, course content and training needs of the educators of the institute in line with the modified courses would be defined. It is proposed that the courses will be updated and refreshed every 3 years across all 12 focus sectors.

- **Preparation of a curriculum to address the rapidly changing technological advancements** to establish clear and achievable goals for capacity building of students and trainers. Guest lectures from

eminent speakers and industrialists, 12 focus sector specific lectures and visits for increasing exposure of students and workshops on team building exercises and soft skills.

- **Peer learning & collaboration to encourage a culture of peer learning** and collaboration among faculties and create platforms for faculties to share best practices, lesson plans, and teaching strategies. Organizing regular workshops, seminars, and training sessions covering various pedagogical methods, technical skills, and industry trends. Establishing mentorship programs with the help of sector experts and industry champions where experienced faculties guide newer ones and foster a sense of continuous learning and growth.

- **Mandatory internships** for a defined period, **apprenticeships and exposure visits** for students for practical knowledge and building acumen for applying theoretical knowledge in real world situations. 50% of the cost of stipend up to a ceiling of INR 2,500 is suggested to be reimbursed to the MSMEs/ industry providing apprenticeship to the students in the proposed project. Each institute ties-up with 10 industry players and provides apprenticeships to minimum 2 students can be considered as a mechanism to increase skilling and avenues to generate employment. It is suggested that the industry champions may also participate in the apprenticeship program and provide apprenticeships to the students. Internships period can vary from 1 month to 3 months with a company twice in a year. Sector specific industrial trainings would be conducted quarterly every year for top 10 students. Exposure visits to large/ mega/ ultra mega manufacturing facilities would be conducted twice a year for top 10 performing students.

- **Certificates issued by Sector Skill Councils, Industry Associations, Government of India, and Government of Punjab** would add value to the candidate profile and would endorse the candidate, which results in better visibility and acceptability in the industry.

- **Tie-ups with local industries, businesses, and employers** can lead to better placement opportunities for graduates and pre-placement offers at the time of internships. ITIs would have to establish the relationships for direct job placements for their students. Sectoral experts and industry champions would also help in facilitating the tie-ups with the industries and help in providing job opportunities to the students.

c. **Use of ICT/Innovative technology towards project implementation**
   Technology Integration: Modern teaching technologies and online learning platforms requires investment in both hardware and software, along with training staff to effectively use these tools. All the training courses available would be made available online.
   Mobile Application: The app (PBTech Placements) developed by the Department of Technical Education and Industrial Training will be used by the students and companies to facilitate jobs for students. Companies will post jobs on the mobile app and students would apply for the jobs. Companies will also share details of all the interviews and placements on the app.

d. **Timelines for achievement of project deliverables and verification protocols**
   The duration of conducting the study will be one year followed by implementation of the proposed interventions over a period of 5 years. The revamping of the courses would be an ongoing activity.

Activity	Y1	Y2	Y3	Y4	Y5
Study & Report preparation					

Particular					
Course and curriculum revamping		■			■
Guest Lecture, workshops, industrial visits, industrial trainings for students and faculties		■	■	■	■
Sector specific trainings (PLI, 12 focus sectors etc.)		■	■	■	■
Internships, apprenticeships, certifications		■	■	■	■

e. **Estimated impact of the project project/scheme/proposal**

The impact of project would lead to catering the needs of 2000 MSMEs and apprenticeship provided to 4000 students per years in Punjab. Timely upgradation of courses would provide skilled resources to the MSMEs and create a pool of talented workforce and educators to support expansion of the industry in long-term. Since course content would be up to date as per the requirement of industry, acceptability of the students would increase in domestic as well as international market. Certifications from reputed institutions would add value to the profile of the students and make them a preferred candidate over others.

f. **Project costing and contribution of state government towards it**

Particular	Year 1	Year 2	Year 3	Year 4	Year 5	Total (INR Cr)
Study & Report preparation by the agency	Rs 60 lakh					0.6
Sector specific industrial trainings for top 10 students (quarterly per year for 12 sectors – total 48) @5000 per student		Rs 24 lakh	Rs 24 lakh	Rs 24 lakh	Rs 24 lakh	0.96
Exposure visits for top 10 students (twice a year) @30,000 per student		Rs. 6 lakh	Rs. 6 lakh	Rs. 6 lakh	Rs. 6 lakh	0.24
Course and curriculum updation and revamp in 3 years (across 12 sectors - Bilingual)		Rs. 1 Cr			Rs. 50 lakh	1.5
Guest lectures, mentorship programmes peer		Rs 7.2 lakh	Rs 7.2 lakh	Rs 7.2 lakh	Rs 7.2 lakh	0.29

learning for faculties and student (quarterly per year for 12 sectors – total 48) (TA & DA @ INR 15,000 per lecture)						
Reimbursement of stipend @ INR 2,500 per apprentice to industry/MSME for providing apprenticeship (200 Institutes, 10 MSMEs, 2 apprentices)		Rs. 1 Cr	Rs. 1 Cr	Rs. 1 Cr	Rs. 1 Cr	4
Total Project cost – Rs 7.59 Cr						**7.59**

State Government Contribution: Infrastructure to be provided by ITIs and Polytechnics of the State.

g. **Plan for strengthening M&E framework pertaining to the project/scheme/proposal:**

The proposed project would be monitored through the MSME digital portal. The improvement in performance of ITIs and increase in number of students placement would be evaluated basis a comprehensive framework including feedback from students & MSMEs. Also, to enhance the effectiveness of the program, the needs of the industries would be assessed every year.

- Implement a feedback mechanism to regularly assess the effectiveness of capacity-building efforts and use this feedback to refine the approach and adapt to changing needs.
- Recognize and reward faculties who excel in their capacity-building efforts.
- Continuously evaluate the impact of capacity-building initiatives on student outcomes and adjust strategies based on the evaluation results.
- The concerned Principal ITI/Polytechnic will maintain a record of monthly trainings, visits, lectures etc. to monitor progress across all ITIs and Polytechnics and GM DIC shall be intimated accordingly. This ensures transparent tracking and accountability of initiatives undertaken.

6.17. Creation of enabling environment and facilitation towards adopting Industry 4.0 in high potential sectors of Punjab such as Automobile, Agriculture Implements, Machine tools & Hand Tools

Project Summary: Punjab is home to a large number of MSMEs which basically is primary driver of industrial growth. Owing to a strong MSME vendor base, Punjab remains a preferred choice for OEMs. Some of the sectors where Punjab has emerged as a leader over the period area Automobile, Agriculture Implement, Machine Tools, Hand Tools and many others. Auto sector in Punjab is a major contributor to the state's economy which is dominated by the manufacturing of auto components, with a focus on two-wheelers and three-wheelers, accounting for about 10% of the country's production. Likewise, Agriculture and allied activities contribute 28.94% share in GSVA (Gross State Value Added) and employs 25.54% people from the state and as this sector continues to grow, the demand for agricultural implements, farm equipment will rise over the time. Having realized the local demand and a well-developed eco-system in Punjab, its prudent to encourage & support MSMEs of these sectors towards technological transformation. For this, one of the most effective approach is to leverage the institutes with proven track record in this domain, first to educate the MSMEs and then help the identified units in implementation of Industry 4.0. One such Institute is Central for Industry 4.0 (C4i4) Lab, an Institute of Govt. of India set up under a national initiative named SAMARTH (Smart Automated Manufacturing and Rapid Transformation Hub) Udyog. Through collaboration among government, industry, and technology companies, C4i4 is developing an ecosystem that nurtures innovation and proliferates Smart Technologies among MSMEs.

Existing Competencies for the specific theme:

The sectors cited above have the potential to grow significantly in the coming years. The state already has the following advantages that will accelerate the growth of the MSMEs in the auto industry:

1. **Strong base of MSME units:** Punjab is able to generate employment opportunities at lower capital costs due to its MSME strength. This reflects the enterprising spirit of the state and its government.

2. **Technology Adoption:** After the COVID pandemic, technology adoption gained a new level of importance and the MSMEs found themselves shifting towards digital solutions and practices.

3. **Strong infrastructure:** Punjab has many R&D centres, tool rooms and academic centres that provide a basis for technological advancement and aspiration of implementing newer practices.

4. **Strategic Location of the state:** Punjab is a land locked state which is well connected by roads, railways, and air to key locations like Delhi, Mumbai, Hyderabad, and Pune.

5. **Accelerating technology adoption through State's Industrial Policy:** State's industrial policy has put a lot of emphasis on technology adoption by providing various direct incentives & dovetailing with other incentives.

6. **Demo Centre of C4i4 being setup in Ludhiana –** A Demo Centre is being set up in Auto Parts Institute Ludhiana by C4i4 under the Hub & Spoke scheme of Department of Heavy Industries (DHI), this Centre would act towards promoting Industry 4.0 in Punjab.

Alignment of the scheme/project/proposal of the state with respect to RAMP objectives:

The project is aligned with RAMP objectives for it covers aspects of technology adoption and digital transformation. Implementation of Industry 4.0 has the potential to transform MSMEs in Punjab. By adopting the new technologies, they would increase their productivity, efficiency, and sustainability. This will help them to remain competitive in the global market and ensure that they can continue to contribute to Punjab's industrial growth. This intervention aligns with the principles of **DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes.**

The programme would also support the two key results areas as mentioned in the RAMP scheme, i.e. strengthening of Institutions by building their capacity and making them more efficient. Secondly, supporting for Market Access, enhancing firm capabilities by implementing lean, and digital solutions and making them circular.

Strategy for project implementation/scheme implementation with pre-defined milestone

a) Understanding the problem statement-

While the auto sector in Punjab is seeing a spurt in growth, there still exist some budding challenges that need to be combatted to boost sectoral growth. Some of the challenges can be outlined as below:

- **Digitalization and Technology Challenges:** Given the current mindset of the MSMEs in the State, technology adoption resonates with increased costs, changing the status quo, stepping out of comfort zone, and undermining their own capabilities. Besides this, there is also lack of awareness about the relevance of the automation technologies. An assessment conducted by UNIDO on the challenges and opportunities of digitalization for automotive component manufacturers in India has evidenced that SMEs in the automotive and related manufacturing industries are lagging behind in the implementation of Industry 3.0 technologies (SCADA or manufacturing execution systems), operating their production on outdated legacy machines and manufacturing equipment, the available solutions being too complex and expensive for SMEs. Furthermore, competencies and knowledge are missing at SMEs relating to evaluating and implementing suitable technologies resulting in problems that could be solved with Industry 4.0 not being adequately understood, as well as a lack of awareness of the relevance of these technologies and missing prerequisites concerning digitization and the use of automation technologies. An effective uptake of these technologies can directly ensure increased productivity, traceability, quality, and resource efficiency.

- **Skill requirement and Employability Challenges:** There is a mismatch in the skills that the MSMEs require to grow, and the skill set MSMEs currently possess, especially in the digital space. There is a need to systemize and streamline the skill- set development for the youth.

b) Proposed project design, concept, feasibility, viability-

The project aims to propose key interventions in areas where technological advancements can transform the sectors and contribute to its growth and competitiveness. The programme would mainly focus on four outputs aiming for **Human capital and skill development in relation to Industry 4.0 and digital transformation, Technology upgradation through adoption of Industry 4.0 technologies, supporting ecosystem improvement for delivering innovation and business support directly to the units in these sectors.**

This will be done by creating a comprehensive and holistic intervention through:

- **Collaboration with C4i4 for program implementation:** As already a Demo Centre of C4i4 is being established, additionally their presence would also be leveraged for creating awareness about I4.0 among MSMEs. The Centre for Industry 4.0 (C4i4) Lab is focused on creating widespread and definitive awareness of the industrial revolution among the Indian manufacturing industry. The C4i4 Lab is striving towards creating a world-class center for promoting innovation & adoption of Industry 4.0 solutions to enhance the global competitiveness of the Industry. Through collaboration among government, industry, and technology companies, C4i4 plans to develop an ecosystem that nurtures innovation and drives growth.

- **Creating a pool of local assessor (Digital Mentor) leveraging C4i4 Infrastructure & expertise:** An MoU has been signed with Centre for Industry 4.0 (C4i4) Lab to open a regional Demo Centre in Ludhiana. This Centre would provide with the experience to industry 4.0 solutions on demonstration sets and equipment. These demonstrations include but not limited to energy monitoring and management, Quality 4.0 and advanced applications of Augmented Reality. This Centre would be also responsible for providing training to identified human resource of the Industry Department to develop them as an assessor to help MSMEs identify the gap areas and prepare the upgradation roadmap for the units. At least 15 resources (Digital Mentors) would be trained to become an assessor.

- **Identifying & selecting MSME units for implementing industry 4.0:** The potential target would be those units who have implemented ERP under the other project under RAMP or otherwise. There would be a database creation of such units and they would be reached out one to one to enroll under this program. These units would be assessed by the local assessor developed under this program to check the suitability for industry 4.0 implementation. Assessor would also use an Industry 4.0 online assessment tool (I4MM), developed by C4i4 Lab, which helps organizations analyze their level of digitization. Based on the assessment report, C4i4 Lab helps organizations identify and

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prioritize immediate areas of digitization and initiates a digital transformation road-map. The logistic & related costs for the assessment would be borne under this program. Then after, the implementation roadmap would be prepared and cost upto 50% of total implementation cost to a limit of Rs 5 lakh would be provided under this program and rest will be ploughed in by the MSME unit.

c) Approach and Methodology for execution/implementation-

As envisaged under another project concerning to ERP implementation, under which around 2000 units would be supported, out of these 2000 units, around 50% would be identified for Industry 4.0 implementation specifically for Auto, Agriculture Implement, Hand Tools & Machine Tools.

- **Assigning local assessor:** The trained local assessor would be assigned to the industry who would work extensively with the unit to understand the process in and out in order to identify the gap and suitable technology to address the gap. The assessor would prepare a road map with the help of C4i4 for implementation of Industry 4.0 in the units.

- **Onboarding of consultant & vendors:** Once the roadmap is prepared, preferably C4i4 would provide consulting support & vendors would be onboarded for plugging in of hardware, sensors or any other equipment required for digitization. C4i4 Lab I4.0 Implementation advisory services help organizations to prepare a strategies plan to implement Industry 4.0 solutions and develop simple solution architectures which can be horizontally and vertically deployed inside and across the organization.

- **Post implementation performance monitor:** Performance of the units in terms of productivity, efficiency, cost reduction, quality enhancement would be monitored to analyze the success of the program.

- **Awareness & sensitization campaign:** Continuous awareness program would be conducted to make MSMEs aware of the Industry 4.0 and vendors engaged for the program would be leveraged to implement this across Punjab on rationalized cost to be realized on account of scale.

- **Development of the ICT Platform:** An ICT platform shall be created as a part of the proposed project. The platform shall have the information on vendors and suppliers in the state, any schemes which can be leveraged, details of consultants for scheme video tutorials of the best-in-class technologies in the sector etc.

- **Bringing circularity in the auto and related industries through promotion of net-zero in manufacturing:** to create a sustainability and digitalization strategy to deliver concrete results across the business and its eco-system, as well as provide capacity building on how utilizing digitalization and Industry 4.0 technologies can enable net zero and circular economy, through

workshops.

- **Plan for self-sustainability of program:** The trained assessors would be utilized even after 5 years when the funding under RAMP would not be provided. The MSME units can avail assessment service from Department by paying an assessment fee, this will ensure the continuation of program in self-sustained manner.

d) Indicative Timelines for achievement of project deliverables and verification protocols

The estimated timeline for the project is 5 years.

	ACTIVITY	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	Year 5 Q1	Q2	Q3	Q4
1	C4i4 starting operation of Demo Centre in Ludhiana.				█																
2	Identification of resources in Industry department to develop as a local assessor				█																
3	Training of resources to equip them with assessment capability as required for industry 4.0					█	█														
4	Identification of vendors for deployment of industry 4.0 in the units.					█	█														
5	Selection of units and deployment of technologies							█	█	█	█	█	█	█	█	█	█	█	█	█	█

Since the project is dynamic in nature, the activities mentioned may change without affecting the final output.

e) Estimated impact of the project project/scheme/proposal-

The proposed project shall directly impact around **1000 MSME units in the sectors namely auto mobile, Agriculture implements, Hand Tools & Machine Tools in the state** through targeted interventions.

Year	Year 1	Year 2	Year 3	Year 4	Year 5
No. of Units		250	250	250	250

f) Project costing and contribution of state government towards it

The costing will include the following parameters:

Components to be covered under RAMP	Per Unit Cost (In Cr.)	Total tentative Cost for 4 years (In Cr.)
• Assessment of MSME units by digital experts • Creation of Digital Roadmap (including guidance and hand holding to Industry for adoption of appropriate Industry 4.0 technologies solutions)	Rs 10 Lakh per unit (50% cost to be funded under RAMP)	Rs 10 Lakh * 1000 *50% = Rs 50 Cr
Training Cost for Training of Trainers (Digital Mentor) in C4i4 Demo Centre	Rs 100,000 for each assessor including the outstation visits (industry & other training center)	Rs 100,000 * 15 = Rs 15 Lakh
Total Tentative Cost of the Project – Rs 50.15 Cr.		

*The cost of equipping the units with the requisite hardware for implementation of the technology will be borne by the units.

State Government contribution: INR 50 Cr
Under the Industrial Policy of Punjab 2022, incentives for Access to Technology will be provided to MSMEs as follows:

1.	Assistance for Technology Acquisition	50% of the cost subject to maximum of Rs. 25 lakhs for adopting technology from a recognized National Institute once during the validity period of the Policy.
2.	Additional support to ZED scheme of GOI	Reimbursement of 50% of expenses subject to maximum of Rs. 5 lakhs incurred on plant and machinery/testing equipment for obtaining at least gold category status under ZED scheme to First 100 units during the validity Period of Policy.

g) Plan for strengthening M&E framework pertaining to the project/scheme/proposal.

The project shall be monitored through the RAMP Monitoring Portal, being developed as a part of the MSME

database creation project. The dashboard shall monitor number of MSMEs enrolled, actual implementation, time taken for implementation, cost for each category (Micro, Small & Medium). Also, the ultimate benefits such as increase in turnover of units, productivity improvement, quality enhancement etc. would also be monitored.

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I/496421/2023

ਪੰਜਾਬ ਸਰਕਾਰ

ਵਿੱਤ ਵਿਭਾਗ

(ਵਿੱਤ ਖਰਚਾ-5 ਸ਼ਾਖਾ)

ਵਿਸ਼ਾ:- **Engaging of Consultants/ Sr. Consultants to strengthen Investment Promotion and Facilitation team of Punjab Bureau of Investment Promotion.**

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ਪ੍ਰਮੁੱਖ ਸਕੱਤਰ, ਪੰਜਾਬ ਸਰਕਾਰ, ਨਿਵੇਸ਼ ਪ੍ਰੋਤਸਾਹਨ ਵਿਭਾਗ ਕ੍ਰਿਪਾ ਕਰਕੇ ਉਪਰੋਕਤ ਵਿਸ਼ੇ ਦੇ ਸਬੰਧ ਵਿੱਚ ਆਪਣੇ ਵਿਭਾਗ ਦੇ ਡਾਇਰੀ ਨੰ E 8563 ਮਿਤੀ 26-12-2022 ਵੱਲ ਧਿਆਨ ਦੇਣ ਦੀ ਖੇਚਲ ਕਰਨ ਜੀ।

2.   ਪ੍ਰਬੰਧਕੀ ਵਿਭਾਗ ਦੀ ਹੇਠ ਦਰਸਾਈ ਤਜਵੀਜ਼ ਦੇ ਸਨਮੁੱਖ ਵਿੱਤ ਵਿਭਾਗ ਇਸ ਸ਼ਰਤ ਤੇ ਸਹਿਮਤੀ ਦਿੰਦਾ ਹੈ ਕਿ Sr. Consultant ਅਤੇ Consultant ਨੂੰ ਦਿੱਤੀ ਜਾ ਰਹੀ 10% ਦੀ Annual Increment ਦੀ ਦਰ ਉਸ ਦੀ ਪੰਜ ਸਾਲਾਂ ਦੀ ਸਰਵਿਸ ਪੂਰੀ ਹੋਣ ਤੋ ਬਾਅਦ ਘੱਟ ਕਰ ਦਿੱਤੀ ਜਾਵੇ ਅਤੇ ਪ੍ਰਬੰਧਕੀ ਵਿਭਾਗ ਉਕਤ ਤਜਵੀਜ਼ ਦੇ ਸਬੰਧ ਵਿੱਚ ਆਪਣੇ ਪੱਧਰ ਤੇ ਸਮਰੱਥ ਅਥਾਰਟੀ ਪਾਸੋਂ ਪ੍ਰਵਾਨਗੀ ਪ੍ਰਾਪਤ ਕਰੇਗਾ :-

Sr.No.	Designation	Current Monthly Fee	Proposed Monthly Fee
1.	Sr. Consultant	1.50 Lakh	2.00 Lakh
2.	Consultant	1.25 Lakh	1.50 Lakh

3.   ਪ੍ਰਬੰਧਕੀ ਵਿਭਾਗ ਦੀ ਮਿਸਲ ਨੰ:- PBIP-HR0HOC/1/2019-HR-PBIP ਮੂਲ ਰੂਪ ਵਿੱਚ ਵਾਪਿਸ ਭੇਜੀ ਜਾਂਦੀ ਹੈ।

Rajbir Kaur

Superintendent

24/01/2023

ਸੇਵਾ ਵਿਖੇ

ਪ੍ਰਮੁੱਖ ਸਕੱਤਰ, ਪੰਜਾਬ ਸਰਕਾਰ,

ਨਿਵੇਸ਼ ਪ੍ਰੋਤਸਾਹਨ ਵਿਭਾਗ।

Competitiveness Support: Blueprint to scale up and more effectively deploy existing competitiveness schemes in the State in a converged manner – (i) Focus on MSME Champions Scheme (ZED, Lean, Design, Digital, IPR), and market access support schemes – of MoMSME and related State interventions; (ii) leveraging existing private and public service providers for business and technical services to MSMEs; (ii) This will also include identification of the potential pool of anchor buyers to partner with on supplier development Programmes, to enhance MSME competitiveness.

S.No.	Project Name	DLI/Result Area	Tentative Budget (INR Cr)	Proposed no. of MSMEs impacted
Competitiveness Support				
1	Punjab One Platform: One stop solution for a Complete MSME Database, Facilitation and Handholding, and Information Dissemination	Result Area 1: Strengthening Institutions and Governance of the MSME Programme	48.48	All MSMEs registered on the Udyam Portal and unregistered MSMEs in the state.
2	Development of a MSME wing at the Department of Industries and Commerce, Punjab	DLI 3 Enhancing the effectiveness of Firm Capabilities Schemes	34.1	All MSMEs registered on the Udyam Portal and unregistered MSMEs in the state.
3	Capacity Building of Officials of Department of Industries and Commerce on Focus Sectors, Subject Areas, and Programs of various Line Ministries of Govt of India	DLI 2 Accelerating MSME Sector Centre-State collaboration.	7.95	All MSMEs registered on the Udyam Portal and unregistered MSMEs in the state.
4	Deployment of "Vyapar Sahayak" to aid and support to MSMEs across districts in Punjab in availing the various benefits extended by Central & State Governments	DLI 3 Enhancing the effectiveness of Firm Capabilities Schemes	38	1,00,000

- The proposed interventions on development of Punjab MSME Digital Platform shall serve as a platform for information dissemination, tracking of interventions, platform integration, repository of knowledge products etc.

  The department envisages that the quality-of-service delivery across various aspects such as regulatory facilitation, incentives, market intelligence, access to credit etc. because of one stop

platform would streamline the process of availing services by MSME units and lead to better monitoring and utilization of existing central, state schemes and initiatives for MSMEs.

- The intervention on development of MSME wing envisages a creation of dedicated MSME Wing at the headquarters within the Department of Industries and Commerce, Punjab. It shall encompass hiring a team of dedicated professionals (Cluster Development Experts, Graphic Designer, Communication, PR, and social media expert, Legal, Finance & Banking) and sectoral experts for 12 key sectors Machine/ Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture Implements, Pharmaceuticals, Engineering goods, Auto and auto components, ESDM and any other sector relevant to the state of Punjab). These experts shall be industry stalwarts, professors etc. The sole aim of this intervention is to improve the competitiveness of the MSMEs in the state by providing adequate handholding support, access to bilingual MSME content for awareness across existing schemes and use sectoral expertise to build MSME sector in the state.

- The intervention on Capacity Building of Officials of Department of Industries and Commerce on Focus Sectors, Subject Areas, and Programs of various Line Ministries of Govt of India has been envisaged with the objective of building the capacities of the government officials in the state, across the districts to enable them to provide the necessary support to the MSMEs of the state, aware themselves on the industry relevant content and information, undergo trainings with certifications and serve as a mentor/guide help them avail benefits of existing central, champion and other schemes, state schemes and initiatives.

- The intervention on Deployment of Vyapar Sahayak (business facilitators) to aid and support to MSMEs across districts in Punjab in availing the various benefits extended by Central & State Governments focuses on onboarding 100 Vyapar Sahayak on success fee model for assisting MSMEs avail various incentives and benefits under various GoI / State Govt schemes. The Vyapar Sahayak would be mandated to assist MSME in availing benefits as defined as per the deliverables defined in this project. Support includes MSMEs in filling form, preparing documents and help connect them with right agency in case of some hard or soft interventions and finally completion of deliverables. The schemes/initiatives covered in the project shall be – ZED, LEAN, CGTMSE, TReDS, solar panelization, boiler upgradation, onboarding on GeM Platform etc. Facilitators would identify the eligible MSMEs by analysing the database provided and make a priority list to reach out. This shall be done sector-wise to reach all sectors of the state.

Dispute Resolution for Delayed Payments: Strategy/blueprint for speedy and resolution of disputes related to delayed payments to MSMEs including (a) outreach and technical assistance to MSMEs to

use ODR under Samadhan Portal; (b) modification of State guidelines (if needed) and outreach to State Facilitation Councils to increase referrals by State Facilitation Councils to ODR providers.

Dispute Resolution for Delayed Payments				
S.No.	Project Name	DLI/Result Area	Tentative Budget (INR Cr)	Proposed no. of MSMEs impacted
1	Punjab Online Dispute Resolution Platform: Resolving MSME Delayed Payments in Punjab through development of a state portal	DLI 6 (Reducing the incidence of delayed payments)	6.72	1,25,000 registered MSME units in Punjab

The proposed intervention on the development of a Punjab Online Dispute Resolution Platform aims to fasten and address the issue of delayed payments through the development of a state Online Dispute Resolution platform to address this issue faced by the MSME's in the State of Punjab. Development of the ODR platform shall help the MSMEs in conflict resolution and help them better avail the benefits of central and state government schemes for MSMEs. Moreso, it is proposed to be developed and deployed for the purpose of facilitating conciliation and / or arbitration in MSME delayed payment cases for Department of Industries, Government of Punjab with two modules – Conciliation module and Arbitration module.

The portal shall be developed using suitable technology platforms which shall encompass records of all the delayed payments cases received. This shall serve as a repository that can be referred to in case of any future case-to-case requirements.

All steps including Summoning, record of proceedings, issuance of notice, etc. to be completely digitized. Real time integration of ODR platform with SAMADHAN portal of Govt of India shall also be carried out as a part of this intervention.

Increased digitalization of MSMEs, including use of TReDS portal: Strategy/blueprint for outreach and technical assistance to increase use of digital platforms by MSMEs, including the TREDS portal.

Increased Digitalization of MSMEs, including use of TReDS Portal				
S.No.	Project Name	DLI/Result Area	Tentative Budget (INR Cr)	Proposed no. of MSMEs impacted

1	Punjab One Platform: One stop solution for a Complete MSME Database, Facilitation and Handholding, and Information Dissemination	Result Area 1 (Strengthening Institutions and Governance of the MSME Programme)	48.48	All registered MSME units on Udyam Portal & unregistered MSMEs
2	Digital Transformation of MSME Units	DLI 3 Enhancing the effectiveness of Firm Capabilities Schemes	100	2000
3	Creation of enabling environment and facilitation towards adopting Industry 4.0 in high potential sectors of Punjab such as Automobile, Agriculture Implements, Machine tools & Hand Tools	DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes	50.15	1000

- The Punjab MSME Digital Platform shall serve as a platform for information dissemination, tracking of interventions, platform integration, repository of knowledge products etc. This digital intervention shall help bettering service delivery to MSMEs.
- The intervention on Digital Transformation of MSME Units aims to support ZED certified MSMEs with adoption of 4 basic modules of ERP solution i.e., Accounting, HRMS, Inventory and Sales. It would help improve the efficiency of the MSMEs and support them in transitioning from a beginner level of digitization to Industry 4.0 over the period of 5 years. The proposed project will help rationalize the cost of adoption the ERP solution and increase acceptability of the proposed solution. Overall, it shall encourage the MSMEs to move towards digitization and streamline their operations through technology.
- The intervention on Creation of enabling environment and facilitation towards adopting Industry 4.0 in high potential sector of Punjab aims to support Automobile, Agriculture Implements, Machine tools & Hand Tools sector aims to identify and support implementation of Industry 4.0.for 1000 MSMEs. The project would be implemented in collaboration with Centre for Industry 4.0 (C4i4) Lab, an Institute of Govt. of India set up under a national initiative named SAMARTH (Smart Automated Manufacturing and Rapid Transformation Hub) Udyog for providing training to the units.

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Partnership with Financial Institutions (FIs) including on-boarding with TReDS:(i) Identification of potential pool of FIs; (ii) blueprint for outreach, partnerships with Financial Institutions and pilot interventions to enhance access to finance for MSMEs (including women-led MSMEs), including in specific sectors and clusters, (iii) Partnering with CGTMSE Trust for outreach to increase number of FIs in the State that are CGTMSE partners, with emphasis on the gender and green (RECP) guarantee products.

S.No.	Project Name	DLI/Result Area	Tentative Budget (INR Cr)	Proposed no. of MSMEs impacted
Partnerships with Financial Institutions, Gender, and Green Guarantee Products
1	Encouraging Green Manufacturing Practices in MSMEs by Making them Energy Efficient	DLI 5 (Enhancing Effectiveness of CGTMSE and "Greening and Gender" delivery)	193.75	2500
2	Encouraging Manufacturing Practices leading to Circular Economy in MSME units	DLI 5 (Enhancing effectiveness of CGTMSE and "Greening and Gender" delivery)	2.8	All MSMEs in the state across 12 focus sectors and those who wish to explore circularity

For CGTMSE and other champion schemes of the central government, the intervention on Deployment of Vyapar Sahayak (business facilitator) to aid and support to MSMEs across districts in Punjab in availing the various benefits extended by Central & State Governments has been envisaged.

The greening initiatives to encourage MSMEs in the state towards sustainability have been proposed under the below heads:

- The intervention on Encouraging Green Manufacturing Practices in MSMEs by Making them Energy Efficient, aims to target units over a period of 5 years for installation of 50kW solar power which would result in capacity addition of 125 MW capacity in the State from renewable source and reduction of carbon emissions equivalent from the energy generated through thermal power generation. As greening and reducing carbon footprint is the priority for Punjab government, the proposed intervention would support the State government in achieving carbon neutrality. The MSMEs would be able to reduce their production costs and make themselves competitive in both, domestic and international markets. Along with saving costs on power, the intervention focusses on adoption of framework for Green Certification of MSMEs in Punjab for energy efficiency, water and material conservation, waste management and green supply chain, aims to handhold MSMEs for adoption of Green Certifications basis a well-defined framework of rating system, which would eventually help the units in reducing the consumption of energy,

water and other natural resources and promote ecologically sustainable growth in their companies.

- The intervention on Encouraging Manufacturing Practices leading to Circular Economy in MSME units aims to maximize the use of resources and minimize waste, in contrast to the traditional linear economy which follows a "take-make-dispose" pattern. The project covers the study across 12 focus sectors with potential for adopting various initiatives leading to adopting circular economy in their business plans and further, providing support in implementation of circular economy model for the MSMEs.

Support to Women-headed MSMEs: Blueprint for increased outreach and targeting ofwomen across MSME Programme coverage and specific interventions to enhance coverage under MSME Champions schemes; access to credit for women-headed MSMEs including through CGTMSE products; and increased proportion of women technical service providers and technical consultants.

Women Headed MSMEs				
S.No.	Project Name	DLI/Result Area	Tentative Budget (INR Cr)	Proposed no. of MSMEs impacted
1	Encouraging Women-Owned Businesses in Punjab: Leveraging Technology, Market Participation, and Financial Inclusion for SHG Growth	DLI 3 Enhancing the effectiveness of Firm Capabilities Schemes	12	5000

The proposed intervention Encouraging Women-Owned Businesses in Punjab: Leveraging Technology, Market Participation, and Financial Inclusion for SHG Growth is designed to empower women owned business in Punjab, both across rural and urban areas with an objective to onboard, assess, train, and support the existing women businesses in the state. Moreover, the project also aims to onboard women businesses on existing e-commerce platforms to help them create a market base, establish a demand supply chain, and give their products a wider market access. A team of professionals shall be deployed as a part of the project to provide professionals services in branding, cataloguing, packaging of products etc. to help women MSMEs, SHGs develop products as per market standards.

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B. Details of interventions and financing being converged under State interventions and allied GoI interventions, planned deployment of these interventions, including budgetary outlays.

Infrastructure–To cover - core public infrastructure accessed by MSMEs - energy, water, roads,

industrial land; infrastructure provided through third-party providers (such as warehousing, cold chains, transportation); and "soft" infrastructure such as laboratory or technology facilities and inspection capacity.

Infrastructure				
S.No.	Project Name	DLI/Result Area	Tentative Budget (INR Cr)	Proposed no. of MSMEs impacted
1	Empowering MSMEs by enabling them to produce quality products by linking them with Testing Lab, Quality Control Centers & R&D Centers	DLI 3 Enhancing the effectiveness of Firm Capabilities Schemes	104	60,000 MSMEs per year in the state

The proposed intervention on Empowering MSMEs by enabling them to produce quality products by linking them with Testing Lab, Quality Control Centers & R&D Centers aims to set up R&D and Testing labs in the focus sectors of Punjab. This shall help the MSMEs in being competitive by producing quality products but also foster innovation and R&D culture in the State leading to advancement of Micro, Small, and Medium Enterprises (MSMEs) within Punjab. The proposed R&D Labs / facility shall handhold MSME units on Design, Standardization, Compliance and Certification. The intervention aims to organize workshops, training programs, and skill development sessions to impart knowledge about quality control tools & techniques and empower entrepreneurs to navigate challenges and seize opportunities effectively. Further, to cater to the diverse needs of different industry sectors, the project will establish specialized innovation cells within the R&D testing Lab that will offer sector-specific support, expertise, and resources.

Skills development: including technical training, tertiary course development or upgrading, encouraging more demand driven technical and vocational training and education.

Skill Development				
S.No.	Project Name	DLI/Result Area	Tentative Budget (INR Cr)	Proposed no. of MSMEs impacted
1	Capacity of Building of Select MSME units in Focus Sectors with an objective to enable scaling up of their Business	DLI 3 Enhancing the effectiveness of Firm Capabilities Schemes	18.23	5000 MSMEs of which 1500 shall be women MSMEs

2	Organize exposure visits for MSME units and officials of Department of Industry & Commerce in Punjab to boost MSME performance, increase production efficiency and promote outreach & awareness	DLI 3 Enhancing the effectiveness of Firm Capabilities Schemes	15.6	500 MSMEs of which 150 shall be women MSMEs
3	Augmenting Industrial Training infrastructure in Govt ITIs – Setting of a Training Studio to impart industrial training using Virtual Reality Technology	Result Area 2 Support to market access, firm capabilities, and access to finance	22.25	84,000 MSMEs per year across 23 districts of Punjab
4	Foster Institutional Capabilities and Strengthening Capacities of Government ITIs and Polytechnics in Punjab thereby creating pool of skilled resources for MSMEs	Result Area 2 Support to firm capabilities, and access to finance	7.59	Shall impact 2000 MSMEs of Punjab

- The proposed intervention on Capacity of Building of Select MSME units in Focus Sectors with an objective to enable scaling up of their Business aims to build capacities of progressive MSMEs of the state across 12 focus sectors of the State (Machine/Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture Implements, Pharmaceuticals, Engineering Goods, Auto & Auto Components and ESDM and any other important sector for the State). The training modules shall encompass increase to market access, developing business opportunities for the local products produced in their district with a focus on export promotion, collaboration with industry associations, industrialists, industry players/professionals to for special training workshops, developing business plans to promote growth, financial modelling, make business development reports, leveraging social media and communication, development.

- The proposed intervention on Organize exposure visits for MSME units and officials of Department of Industry & Commerce in Punjab to boost MSME performance, increase production efficiency and promote outreach & awareness focuses on developing the technical knowledge of the MSME units, officials through visits to R&D centres, tool rooms and impart industry specific knowledge and exposure to the MSMEs in their respective sector. Through these visits, State aims to empower MSMEs with the knowledge and networks that are necessary to foster their growth with a focus on production efficiency, reducing the cost of

production through use of latest technologies, foster market linkages and witness overall sector development. These exposure visits shall be regional, domestic, and international.

- The intervention on Augmenting Industrial Training infrastructure in Govt ITIs – Setting of a Training Studio to impart industrial training using Virtual Reality Technology aims to establish training studio in each district of Punjab shall be set up to impart training to employees of MSMEs on advanced technologies in the simulated environment using the Virtual Reality Technology. The training studio will be set up in Govt. it is in collaboration with the vendors/identified vendors who would provide the technical hardware'& software with space & utility services provided by department in the District Industry Centre/space provided by Industry Association. The training would involve creating 3D models of machinery, environments and interactive simulations that mimic real world scenarios and to enable participants to navigate and interact with in the VR environment.

Export Promotion and Increasing Market Access:

Export Promotion and Increasing Market Access				
S.No.	Project Name	DLI/Result Area	Tentative Budget (INR Cr)	Proposed no. of MSMEs impacted
1	Set up an Export Promotion and Facilitation Cell within Industries and Commerce Department	DLI 3 Enhancing the effectiveness of Firm Capabilities Schemes	12.05	5000 MSMEs

The proposed intervention on Set up an Export Promotion and Facilitation Cell within Industries and Commerce Department aims to achieve its goal of doubling its exports as envisaged in the Punjab Industrial and Business Development Policy 2022 in the next 5 years with a focus on generating awareness about exports and capacity building of both department officials and exporters through trainings and workshops across topics such as export procedure and compliances, incentives, taxes, marketing and branding, quality, testing, certifications, sector-specific trainings, and market intelligence for identifying opportunities, buyer seller meets, export awards and provide support in publishing Export Guidebook of the State.

Branding and Communication Strategy

Branding and Communication Strategy				
S.No.	Project Name	DLI/Result Area	Tentative Budget (INR Cr)	Proposed no. of MSMEs impacted
1	Setting up of MSME and GEM Facilitation Centres across all districts targeting an aggressive information dissemination drive through Awareness workshops	DLI 3 Enhancing the effectiveness of Firm Capabilities Schemes	6.31	All registered & unregistered MSME units of Punjab

The proposed intervention on Setting up of MSME and GEM Facilitation Centres across all districts targeting an aggressive information dissemination drive through Awareness workshops aims to develop awareness campaigns to educate MSMEs about the Six Champion schemes, Trade Receivables Discounting System (TReDS), Punjab Industrial and Business Policy 2022, Green Certification, CGTMSE and across the 12 identified focus sectors i.e., Machine Tool, Hand Tools, Sports Goods, Food products, Bicycle, Textile, Agriculture Implements, Pharma, Engineering Goods, Auto & Auto Components, ESDM and one additional sector. MSME and GeM facilitation centers shall be set up across all districts as a part of this intervention.

The project would use a multifaceted strategy to spread awareness and the following elements will be included: Workshops & Training Sessions, Webinars & Online Resources, Collaboration with Industry Associations and One-on-One Consultations, sessions with industry experts, sectoral experts, international experts, and government officials.

SECTION 7

Partnership and Outreach Strategy

Section 7: Partnership and Outreach Strategy

Developing an effective partnership and outreach strategy for Micro, Small, and Medium Enterprises (MSMEs) for Punjab requires careful planning and consideration of the local business environment. Below is a step-by-step approach that shall be followed to develop a comprehensive strategy to reach out to all stakeholders and increase the beneficiary base in Punjab.

- **Identification of key stakeholders:** The first step is to identify the key stakeholders involved in supporting and promoting MSMEs in Punjab. These stakeholders shall include government agencies, industry associations, financial institutions, local chambers of commerce, educational institutions, and non-profit organizations.

- **Establish a dedicated unit:** It is proposed to establish a dedicated unit or task force responsible for coordinating partnership and outreach activities. This unit should comprise representatives from relevant stakeholders, ensuring collaboration and a holistic approach. The experts should be a from a communication background who have, in the past undertaken extensive outreach work.

- **Conduct a needs assessment:** The dedicated unit shall be responsible for carrying out a comprehensive needs assessment to understand the challenges and requirements of MSMEs in Punjab. The inferences of this assessment shall be drawn from our extensive primary research, namely- surveys, interviews, and focus group discussions with MSME owners, industry experts, and relevant stakeholders. Moreover, a deep dive on the data gathered from the primary research and consultations on the challenges faced by MSMEs, such as access to finance, technology adoption, market information, skill development, and regulatory compliance, delayed payments, capacity building etc. shall be outlined.

- **Development of a concrete partnership framework:** Based on the needs assessment, a partnership framework that outlines the objectives, roles, and responsibilities of each stakeholder shall be developed. Assessing each partner's strength, and how they can contribute to addressing the identified challenges and supporting MSME growth in Punjab. The framework shall comprise mechanisms for regular communication, collaboration, and regular monitoring of progress.

- **Strengthen financial linkages**: Through our extensive primary research it has been inferred that the MSMEs face challenges in accessing finance. Potential collaboration with financial institutions shall be undertaken and implemented to deliver financial products and services tailored to the needs of MSMEs. This may include providing affordable credit, facilitating loan guarantees, promoting digital payment solutions, and organizing financial literacy workshops.

- **Enhance business development services:** Our outreach and partnerships plan shall forge partnerships between MSMEs and business development service providers, such as technology providers, marketing consultants, and industry experts. Encourage the provision of specialized training, mentoring, and advisory support to MSMEs to improve their competitiveness and innovation capabilities. Efforts shall be made to ensure that MSMEs make strong independent partnerships for stakeholders relevant to their field and continue building them.

- **Foster innovation and technology adoption:** Strong emphasis shall be given on promoting partnerships with research institutions, innovation centers, and technology incubators to facilitate technology transfer and adoption among MSMEs. For this, workshops shall be organzied, seminars, and technology showcases to create awareness and build capacity for technology-driven growth.

- **Strengthen market linkages:** Platforms shall be created, and networking events organized where MSMEs can connect with potential buyers, suppliers, and business partners. Collaborate with industry associations and trade fairs to promote MSME participation, showcase their products and services, and facilitate B2B linkages. This is also one of the major components of our buyer-seller meets proposed in the exposure visits project.

- **Implement targeted outreach programs:** Develop targeted outreach programs to reach MSMEs in remote areas or marginalized communities. This may involve organizing awareness campaigns, mobile training programs, and special incentives to encourage their participation and address specific challenges they face. A detailed 5-year project plan has been developed for creating awareness workshops across the state of Punjab in 23 districts.

- **Monitoring and Evaluation**: A strong monitoring and evaluation framework to track the progress and impact of the partnership and outreach activities shall be created. The framework shall be developed by the team and shall regularly assess the effectiveness of the strategy, collect feedback from MSMEs, and make necessary adjustments to ensure continuous improvement.

Brief of the Proposed Intervention on Outreach and Communication for MSMEs in Punjab

As a part of SIP, all the suggested interventions aim to create awareness campaigns for MSMEs in Punjab, providing them with information about schemes designed for their benefit. This section shall give a brief on the partnership and outreach strategy.

1) **Communication strategy to enhance number of MSMEs supported through competitiveness Programmes (MSME Champions Scheme and related interventions), including on-boarding**

onto SAMADHAN and TReDS portal. Indicative interventions include:

This section emphasizes the significance of MSMEs (Micro, Small, and Medium Enterprises) being well-informed about various schemes available to them. Awareness of these schemes is crucial for the growth and development of MSMEs, as it enables them to expand their operations, access broader markets, and capitalize on growth opportunities.

Our proposed intervention on Setting up of MSME and GEM Facilitation Centres across all districts targeting an aggressive information dissemination drive through Awareness workshops largely aims at creating awareness on the existing central and state schemes comprising of champion schemes and other interventions. Moreover, this intervention also focuses on 12 key sectors of Punjab. The team of experts shall be coming in to take the sessions across all districts on the existing Champion schemes – namely, ZED, LEAN, Design and other schemes like CGTMSE, TReDS etc. Robust awareness sessions, targeting MSMEs across sectors and through involvement of experts shall be undertaken with an aim to increase the number of people enrolled across these schemes. It is envisaged that this communication strategy, over the period of time shall be instrumental in seeing a spurt in scheme performance and enrolment.

2) **Preparation of Terms of Reference and hiring of firm to map stakeholders and develop and implement communication, partnerships, and outreach strategy.**

Partnerships with stakeholders is important as it helps in the growth of the MSME sector and also creates opportunities for people. Interventions including hiring of external agencies and firms to map out strategies in partnership with the MSMEs and the government can be a pivotal factor for growth and success of the sector. It can help in generating capital and providing technological and market exposure. With the collaboration and help of external agencies and individuals, MSMEs will be given opportunities to accelerate their growth and foster an environment of innovation and advancement.

As a part of the Strategic Investment Plan, various interventions have been formulated that highlight the importance of partnerships when it comes to MSMEs, stakeholders and external agencies. These interventions span across deploying Vyapar Sahayak (business facilitators) for assisting MSMEs in availing various incentives and benefits under various GoI / State Govt schemes, hiring of experts for export promotion, hiring of professionals for the development of women led businesses and MSMEs in the state through handholding and design support for e-commerce platforms etc.

3) **Outreach and partnership development to Industry Associations, anchor firms and Financial Institutions.**

Development of partnership to industry associations, anchor firms and financial institutions is

important for MSMEs as they help in the overall growth of the whole MSME sector. Various interventions have been discussed in the below sections: -

Capacity Building Programme to boost MSME development in Punjab. The project shall focus on building international linkages, increasing market access, financial modelling, and entrepreneurship development – One of the components of this intervention is expanding the horizons of MSMEs through partnerships and growth. The intervention aims to amplify entrepreneurial dynamism of selected MSMEs belonging to the 12 key sectors of Punjab and provide them with a platform to forge individual partnerships with existing agencies and institutions.

Moreover, the awareness development intervention proposes a multifaceted strategy to spread awareness and the following elements will be included: Workshops &Training Sessions, Webinars & Online Resources, Collaboration with Industry Associations and One-on-One Consultations, sessions with industry experts, sectoral experts, international experts, and government officials.

4) **Focused outreach strategy to reach women-headed MSMEs to expand coverage of women-headed MSMEs under the SIP.**

Over the past few years, there has been a realization on the importance of encouraging women entrepreneurship and support women MSMEs. As a part of our interventions, there is a special focus on women headed MSMEs, women entrepreneurs and women business owners.

Our focused intervention on capacity building of MSMEs, exposure visits, financial inclusion of women entrepreneurs and women SHGs is focused on increasing market access of women MSMEs and has been developed with an aim to bring the existing women MSMEs of the state, across rural and urban areas in the forefront by giving them due representation and adequate handholding support.

The solar power installation intervention envisaged as a part of SIP shall also give preference to women MSMEs so as to provide them with better opportunities and bridge the existing gap in availing the services.

Moreover, the robust awareness programme initiative envisaged district wise shall also have a special focus to target women MSMEs in the state in order to address their challenges and undertake awareness generation for their upliftment. It is believed that awareness generation is the biggest key to widening the horizons and create a success model hence, the project clearly lays down focus on the women MSMEs of Punjab.

5) **Outreach on specific sectors/geographical clusters as required.**

Across all our proposed interventions, there is a focus on 12 core/focus areas of Punjab namely –

Machine/Power Tool, Hand Tools, Sports Goods, Food processing, Bicycle, Textile, Agriculture

Implements, Pharma, Engineering Goods, Auto & Auto Components, ESDM and one additional sector for MSME.

Our proposed interventions on organizing exposure visits, capacity building of MSME units in the state of Punjab, Capacity building of government officials of Punjab, awareness workshops, MSME wing which shall house sectoral experts across these 12 key sectors, training studio to impart industrial training through VR technologies, diagnostic study to promote circular economy in the state of Punjab and development of R&D and testing labs shall be focussed on these 12 focus sectors of Punjab. The primary aim behind this is to promote sectoral growth which shall lead to an overall development of MSME sector in Punjab.

6) Partnerships with other Government Departments, Institutions for identification and mobilization of MSMEs.

The government plays a pivotal role, more so in RAMP for identifying and mobilizing MSMEs of the state. Across our interventions, emphasis has been placed on working in close conjunction with government departments who shall play an important role for MSME identification across projects. Given that each district houses multiple MSME sectors, the DIC office plays an instrumental role in identifying the strengths and weaknesses of MSMEs in their districts. Moreover, sectoral experts have been proposed in our interventions, belonging to the 12 focus sectors of Punjab who shall be helpful in identifying MSMEs for capacity building of MSME initiative, exposure visits, awareness programmes etc.

Moreover, as a part of our interventions, the VR training studios are being developed across all the ITIs in collaboration with Department of Technical Education, the Solar panelization project requires collaboration with relevant government bodies.

7) Preparation of awareness and outreach strategy to increase referrals to ODR in partnership with MSEFCs under the SIP

"**Punjab Online Dispute Resolution Platform:** Resolving MSME Delayed Payments in Punjab through development of a state portal" The intervention suggests the creation of a state-specific Online Dispute Resolution (ODR) platform to aid MSMEs, buyers, and government institutions in resolving delayed payment issues. The platform aims to contain and ultimately eliminate this problem effectively. It involves the development and deployment of an Online Dispute Resolution (ODR) Platform to facilitate conciliation and arbitration in MSME delayed payment cases for the Department of Industries, Government of Punjab. This platform would also be used for delayed payment disputes and capacity building.

Following shall be the key features of this intervention: -

- Implementation of ODR Platform enabling settlement of disputes of MSMEs in an online mode

through VC

- The portal shall be developed using suitable technology platforms. The portal shall encompass records of all the delayed payments cases received. This shall serve as a repository that can be referred to in case of any future case-to-case requirements.
- All steps including Summoning, record of proceedings, issuance of notice, etc. to be completely digitized.
- Real time integration of ODR platform with SAMADHAN portal of Govt of India
- VC setup to be installed within this project across DIC offices of 23 Districts.

It must be noted here that all our proposed interventions under RAMP that have a component of fostering partnerships, awareness generation and developing communication strategies have been broadly envisaged with the following objectives: -

- **Promote growth and development:** The aim is to empower all MSMEs of the state by providing them with knowledge and resources to take full advantage of various schemes and interventions initiated for their benefit.

- **Enhancing competitiveness:** By educating MSMEs about the champion schemes, TReDS, Punjab Industrial and Business Development Policy 2021, CGTMSE, addressing issues faced by MSMEs and help them foster individual partnerships, the interventions shall enable MSMEs to enhance their competitiveness in the market. Through increased awareness and understanding, MSMEs can make informed decisions and leverage the schemes to improve their business performance.

- **Sectoral growth and targeted interventions:** The proposed interventions have a focus on 12 key sectors of Punjab and over the period of 5 years, these interventions shall result in sectoral growth while reaching out MSMEs across districts.

SECTION 8

Strengthening Capacity for Development and Delivery of MSME Support Programme in the State

Section 8: Strengthening Capacity for Development and Delivery of MSME Support Programme in the State

1) Strengthening State Portals and Integration with National portal: Blueprint for interventions needed (including hiring of Technical Support as needed) to strengthen and integrate existing *State* online portals for effective service provision; and adoption of national data and reporting standards for integration with national MoMSME unified portal).

As a part of RAMP interventions, an MSME Digital Portal has been envisaged. This web-based portal will be created for departmental (Department of Industries and Commerce, Punjab) users to monitor the RAMP Programme being implemented across the state which shall also encompass monitoring of the survey process, as proposed in one of the RAMP interventions.

The portal will be a one-stop solution for data analysis, insights, MIS reporting, regulatory know how, incentives, government schemes and additionally monitoring of RAMP scheme in the state, spread across target areas and the number of projects. It is envisioned that in due course of time, during the period of RAMP programme roll out, this MSME portal shall be integrated with the National MoMSME unified portal for MoMSME.

Another RAMP intervention has been envisaged that talks about development of a State ODR Portal for Punjab. This proposed portal aims to fasten and address the issue of delayed payments through the development of a state Online Dispute Resolution platform to address this issue faced by the MSME's in the State of Punjab. Development of the ODR platform shall help the MSMEs in conflict resolution and help them better avail the benefits of central and state government schemes for MSMEs. Real time integration of this proposed state ODR platform with SAMADHAN portal of Govt of India shall also be carried out during the course of project roll-out.

2. **Capacity Building of Key players to deliver on the MSME agenda, including coordination mechanisms: Blueprint for Interventions to enhance capacity of key Government and other support agencies to implement MSME support Programme as reflected in the SIP and on MSME grievance redressal.**

During the preparation of interventions in SIP, it was regarded that the government departments play an important role in the growth of MSME sector by providing necessary guidance and support. Hence, it was imperative to devise a dedicated capacity-building programmes for the department and government officials to strengthen the existing capacities and enable them to deliver to the best of their capabilities. The intervention proposed as a part of RAMP on capacity building of government officials shall help in the following ways: -

1) **Enhanced Policy Formulation and Implementation**: Capacity building equips officials with the knowledge and skills necessary to develop and implement effective policies and regulations for the MSME sector. This includes understanding the needs and challenges of MSMEs, identifying policy

gaps, and formulating targeted interventions that promote their growth and development.

2) **Improved Service Delivery:** Building the capacity of government officials enables them to provide better support and services to MSMEs. It enhances their understanding of the diverse needs of MSMEs and equips them with the skills to deliver tailored assistance, business development services, and access to finance. This leads to improved efficiency, effectiveness, and responsiveness in addressing the needs of MSMEs.

3) **Strengthened Entrepreneurship Ecosystem:** Effective capacity building programs empower government officials to foster an enabling ecosystem for entrepreneurship. They can provide guidance, mentorship, and skill development opportunities to aspiring and existing entrepreneurs, fostering a culture of innovation and risk-taking. This, in turn, promotes entrepreneurship, job creation, and economic growth.

4) **Enhanced Knowledge and Expertise:** Capacity building programs provide government officials with updated knowledge on emerging trends, best practices, and technological advancements in the MSME sector. This helps them stay abreast of the evolving business environment and equips them to provide relevant and informed guidance to MSMEs. It also enables them to adapt policies and programs to address emerging challenges and leverage opportunities.

5) **Strengthened Institutional Capacity:** Capacity building initiatives improve the overall competency and professionalism of government officials within the MSME department. It fosters a culture of continuous learning, collaboration, and innovation. This, in turn, enhances the department's overall institutional capacity to effectively support and promote the growth of the MSME sector.

6) **Effective Resource Allocation**: Capacity building equips government officials with skills in monitoring, evaluation, and data-driven decision-making. This enables them to assess the impact and effectiveness of existing programs, identify areas for improvement, and allocate resources more efficiently. It helps ensure that government resources are targeted towards initiatives that yield the highest impact and deliver measurable outcomes.

7) **Collaborative Partnerships**: Capacity building programs often facilitate networking opportunities and collaboration among government officials, industry associations, and other stakeholders. This promotes knowledge-sharing, peer learning, and collaboration, fostering a supportive ecosystem for the MSME sector. It encourages the exchange of ideas, best practices, and innovative solutions, leading to enhanced cooperation and collective efforts in supporting MSME growth.

Capacity building strengthens skills, abilities, and resources to empower the community to take charge of their development. There are 6 lakh + MSMEs (Udyam registered) across 23 districts in Punjab, providing goods and services to 80+ sectors. The MSMEs need a robust governmental support system to promote their growth and development. This is possible only if the government officials in the MSME department are well-equipped to resolve the challenges the MSMEs face and foster an environment of innovation and expertise. The intervention proposed in SIP to empower the government officials is called "Capacity Building of Officials of Department of Industries and Commerce on Focus Sectors, Subject Areas and Programs of various Line Ministries of Govt of India."

- As a part of the project, a targeted Learning and Development program for about 250 officers of Industries Department is envisaged who will be further categorized into a combination of GM DICs/BLEOs/FM/SIPO/or any other identified government official in each district of Punjab.
- The training program shall cover policies of 18 relevant Line Ministries of GoI, 20 service sector such as GST, GEM Procurement, Trademark / GI, Project Management, etc and 12 Focus Sectors. The sectors identified are industry specific and shall contribute immensely to the skill development of government officials in Punjab.
- Entire content will be digitized (in Bilingual) and available for use on the proposed Learning and Management System.
- The curriculum for the training shall be developed by existing identified MSME Development Institute, National Institute for MSMEs or any other relevant agency which is industry and sector relevant.
- The training will be spread over 3 years for the officials and each year the level of training will be upgraded from basic to intermediate to advanced. Regular assessment of Officers and basis their performance in the assessments they will be eligible for exposure visits in the chosen sector.

All the interventions proposed as a part of SIP require some support and cooperation from the government officials in order to improve the MSME sector in Punjab, hence their capacity building becomes imperative. Government officials must collaborate and equip themselves with the knowledge and training to deal with any specific challenges faced by the MSMEs in the state in order to handhold them. It will enhance their understanding of the diverse needs of the MSMEs and endow them with skills to deliver tailored assistance and business development services. Government officials will also be able to make better policies and framework for the needs of the MSMEs once they have a grasp on the kind of assistance required, particularly sector-wise. This will prompt the MSMEs to trust the government and their problem- solving skills when they are faced with hurdles. Overall, this will foster a culture of innovation, entrepreneurship, and efficiency.

3) **Environmental and Social Management for MSME support: Action plan to institute a screening, assessment, and monitoring system in line with the 'Programme Implementation Plan'; which is being developed by Ministry of MSME.**

An Environmental and Social Systems Assessment (ESSA) was undertaken by the World Bank to understand the environmental and social risks, benefits, impacts and opportunities of the existing policy and practices on the ground. ESSA is a process that involves evaluating the potential environmental and social impacts of a project, program, or policy. It is often carried out by development organizations, including the World Bank, to ensure that projects they finance, or support are environmentally and socially sustainable. The assessment involves identifying potential risks and impacts, as well as proposing measures to mitigate those risks and enhance positive social and environmental outcomes.

The World Bank has a comprehensive set of environmental and social safeguard policies that aim to ensure that the projects they fund are designed and implemented in a way that avoids or mitigates adverse impacts on the environment and affected communities. These safeguards include policies related to environmental assessment, involuntary resettlement, indigenous peoples, cultural heritage, and more. The process that is followed to conduct ESSA is as follows: -

To understand the existing environmental and gender challenges in the state of Punjab we shall have a deep dive into the existing issues and how our proposed interventions can address them.

The environmental issues faced by Punjab as a state are as follows:
- **Groundwater Depletion:** Punjab continues to struggle with a serious problem of groundwater depletion due to over-extraction for agriculture and domestic use. This has led to declining water tables and could have significant long-term consequences for water availability and agricultural productivity.
- **Water Pollution:** Pollution of rivers, water bodies, and groundwater with contaminants such as pesticides, fertilizers, industrial waste, and sewage remains a concern. This pollution affects water quality, aquatic ecosystems, and poses risks to human health.
- **Air Pollution**: Air quality issues persist in Punjab's urban areas, especially during certain times of the year. Vehicular emissions, industrial activities, and crop residue burning contribute to high levels of particulate matter (PM2.5 and PM10) and other pollutants, impacting respiratory health and overall air quality.
- **Agricultural Practices:** While efforts have been made to promote sustainable agricultural practices, challenges related to the excessive use of chemicals, water inefficiency, and crop residue burning continue. These practices can degrade soil quality, harm the environment, and impact public health.
- **Climate Change Vulnerability**: Punjab is susceptible to the effects of climate change, including altered precipitation patterns, increased temperatures, and extreme weather events. These changes can have implications for agriculture, water resources, and livelihoods.
- **Biodiversity Loss:** Habitat loss due to urbanization, agricultural expansion, and other human activities has contributed to a decline in biodiversity in the state. Efforts to conserve and restore ecosystems are

ongoing, but significant challenges remain.

- **<u>Waste Management:</u>** Adequate waste management infrastructure and practices continue to be a challenge in some areas, leading to improper waste disposal, environmental pollution, and health risks.
- **<u>Sustainable Agriculture:</u>** Promoting sustainable and eco-friendly farming practices while maintaining agricultural productivity remains a challenge. This includes reducing chemical inputs, promoting organic farming, and finding alternatives to stubble burning.
- **<u>Environmental Awareness</u>**: Raising awareness about the importance of environmental conservation, sustainable practices, and responsible resource management is an ongoing challenge.

Female Work Participation Rate (WPR) in Punjab vis-à-vis India

Females constituted about 48 per cent of the total population of India comprising only 27.8 per cent of working female population during 2011. During 2001, the total female population in the country was 48.26 per cent while the working female population was 25.7 per cent. On the other hand, in Punjab when female population rose from 46.62 per cent to 47.23 per cent during the period 2001 to 2011, the female WPR worsened from 19.1 per cent to 13.9 per cent. Among different states, Punjab state which ranked 24th in terms of FWPR during 2001 had slipped to 28th rank in 2011 with lowest female WPR (13.9%).[65]

Our findings from the primary survey of 5016 units outlining the environmental challenges and challenges faced by women in the MSME scenario.

Environmental Challenges

- Many districts in Punjab grapple with air pollution issues, prompting MSMEs across these regions to embrace Green Technology. Notably, Air Pollution Control devices have been deployed in numerous districts.
- The adoption of air pollution control devices is evident in around 594 MSMEs, indicating that approximately 12% of the surveyed MSMEs are actively embracing green technology to mitigate air pollution.
- Jalandhar leads the way with nearly 125 MSMEs utilizing air pollution control devices, followed by Moga and Ludhiana.
- Encouragingly, the employment of air pollution control devices is also on the rise among MSMEs in Amritsar
- The auto components sector, agricultural implements sector, and other related industries are diligently striving to maximize the integration of air pollution control devices.
- Apart from adopting available technologies, MSMEs in diverse Punjab districts encounter hurdles in

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[65] http://isadp.in/publication/P7.pdf

realizing their expansion objectives concerning environmental and pollution regulations.

- Notably, approximately 18% of MSMEs confront challenges linked to adhering to Environment and Pollution norms during their expansion endeavors. This issue is particularly notable among MSMEs situated in Ludhiana, Patiala, and Amritsar.

Challenges pertaining to Gender in the MSME scenario.

- Our survey unveiled a noteworthy presence of women owned MSMEs dispersed across various districts of Punjab. In the micro-category, Patiala boasts an impressive representation with nearly 23% of women led MSMEs, closely followed by Amritsar with approximately 21%.

- Among small enterprises, Muktsar leads with an allocation of almost 22% women-led enterprises, trailed by Pathankot.

- Within the realm of medium enterprises, Ludhiana takes the lead with an impressive proportion of almost 28% women led MSMEs, closely shadowed by Fatehgarh Sahib and Fazilka.

- The issue of accessing finance emerges as a significant challenge for MSMEs throughout Punjab's districts. Consequently, tailored support has been extended to Women Entrepreneurs, SC, ST, OBC communities, among others, within various MSME sectors. Notably, this specialized assistance benefits approximately 341 MSMEs.

- The districts of Punjab also house a substantial number of IT startups led by women entrepreneurs. Our primary survey identified a total of 350 women led MSMEs within the region. Impressively, Patiala takes the lead with nearly 21% of these enterprises, closely trailed by Amritsar with 18%, and Ludhiana with almost 17%.

In order to combat the above-mentioned challenges, the Department of Industries and Commerce, Punjab has identified key interventions in the area of greening and gender to address the issue of gender parity and moving towards sustainable solutions.

An intervention on rooftop solarization has been envisaged which aims to support the State in augmenting the capacity of energy generated by way of installation of solar power by the MSMEs and improving efficiencies of MSMEs by reducing production costs, supporting the State in moving toward carbon neutrality and act as agents of change towards the greening initiative.

Another intervention on Adoption of Framework for Green Certification of MSMEs has been proposed to handhold MSMEs for adoption of Green Certifications basis a well-defined framework of rating system, which would eventually help the units in reducing the consumption of energy, water and other natural resources and promote ecologically sustainable growth in their companies.

An intervention on Encouraging Manufacturing Practices leading to Circular Economy in MSME units has also been proposed to conduct assessments and provide support in implementation of circular economy model for the MSMEs in Punjab.

For financial inclusion of women MSMEs an intervention Encouraging Women-Owned Businesses in Punjab: Leveraging Technology, Market Participation, and Financial Inclusion for SHG Growth has been proposed wherein they will be encouraged to get onboarded on e-commerce platforms through appropriate handholding support in terms of cataloguing, product listing, onboarding on the platforms etc. The intervention broadly focuses on access to finance for women, increasing market access, leverage existing technologies and overall development of women MSMEs in the state.

Apart from this, women beneficiaries have been targeted across multiple interventions in capacity building, exposure visits, champion scheme enrolment and awareness programmes to bridge the gap in availing the services and integrate them equally in the MSME industry.

4) **Strengthening M&E Framework for MSME Support: Blueprint for strengthening M&E framework, including MIS systems; tracking of inputs; outputs/ outcomes for MSME interventions; availability of gender disaggregated data and data by other social groups etc., to track and report data on SIP implementation; RAMP Programme and MSME support in the State.**

Strengthening the Monitoring and Evaluation (M&E) systems for Micro, Small, and Medium Enterprises (MSME) performance and RAMP performance in the Department of Industries and Commerce, Punjab, is vital for fostering the growth and development of this crucial sector. Here are specific steps to enhance the M&E systems. Some of the key parameters than can be explored for strengthening the existing M&E systems in Punjab can be outlined as below: -

To ensure appropriate monitoring of the RAMP Programme, it is proposed to develop a three-tiered structure which shall encompass of government officials at multiple levels of programme functioning.


Apex Review Committee at the CS Level

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Inter Departmental Committee

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Intra Departmental Committee
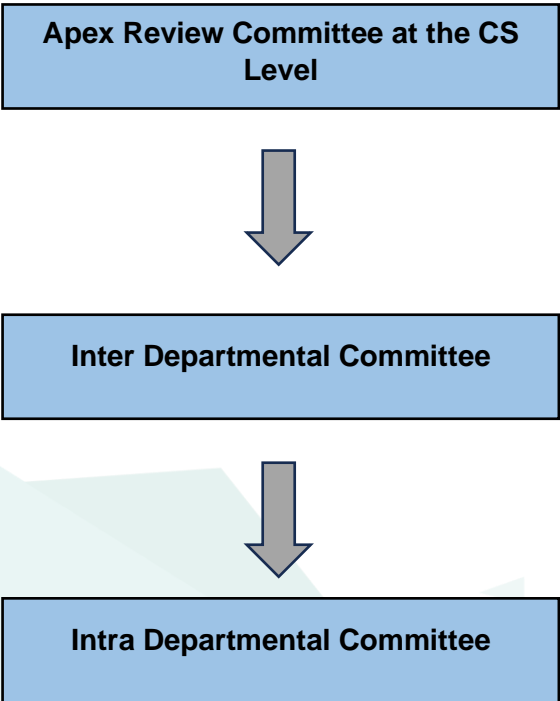
Intra Departmental Committee

An intra departmental committee to monitor the development and progress on RAMP Programme, SIP Implementation, outputs, and inputs of MSME interventions and existing MIS systems of the department is essential to ensure granular monitoring at the department level and undertake correctional measures to improve departmental performance.

Their roles and responsibilities shall encompass a monthly review of activities being undertaken at each of the districts, scheme performances, RAMP Implementation status w.r.t interventions, increase in enrolment of MSMEs with a special focus on women MSMEs. The list is not exhaustive and shall be further niched out post consultations with the department.

This intra departmental meeting shall be held once in a month to monitor the progress on RAMP indicators.

A basic organogram of the inter departmental committee can broadly look like:
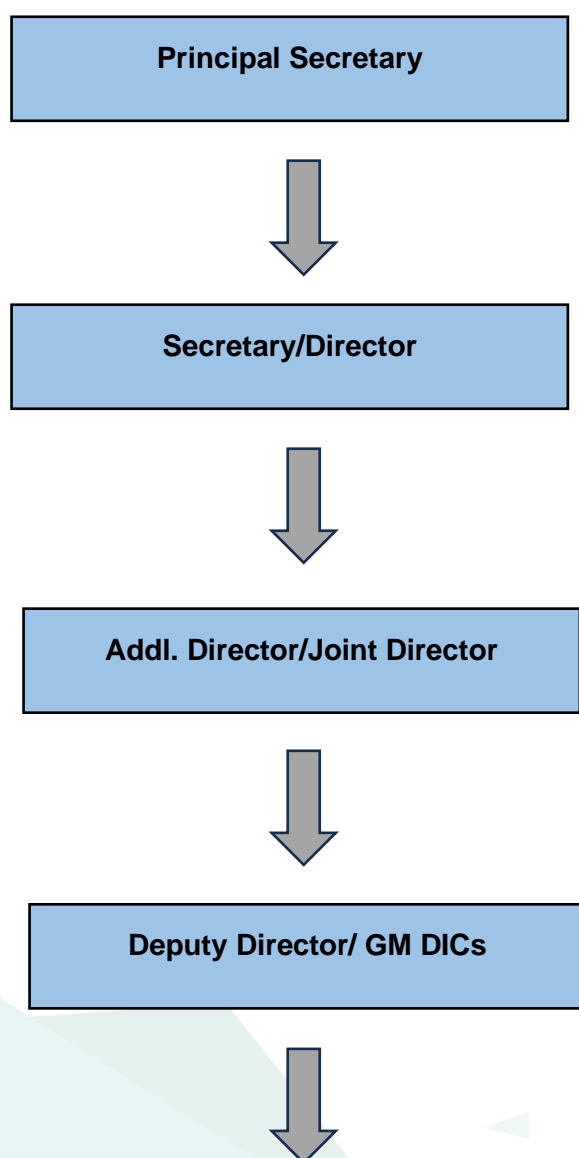
Inter Departmental Committee

The State RAMP Programme Committee (SRPC), formed to broadly monitor the functioning of RAMP Programme implementation in the state can also serve as an inter-departmental committee for tracking and monitoring MSME performance. Each of the listed members shall drive the MSME agenda and interventions for Punjab and assess the parameters of MSME growth. The SRPC shall meet once in 3 months to monitor the RAMP programme interventions.

Given below are the members of the SRPC that shall also serve as members of our inter departmental committee: -

Sl. No	Concerned Department	Member
1	Principal Secretary Industries & Commerce	Chairperson
2	Financial Commissioner, Rural Development	Member
3	Principal Secretary, Power	Member
4	Principal Secretary Governance Reforms	Member
5	Principal Secretary Housing and Urban Development	Member
6	Principal Secretary Finance	Member
7	Principal Secretary Local Government	Member
8	Chief Executive Officer, PBIP	Member
9	Director Industries & Commerce	Member
10	Managing Director, PSIEC	Member
11	Director, MSME- Development Institute	Member
12	Nodal Officer, RAMP	Member

Apex Review Committee at the CS Level

Given that MSME development and performance is a key parameter of development for the state, an apex review committee with a quarterly review shall be set up at the CS level to monitor the overall performance of Department of Industries and Commerce, Punjab in MSME performance. The committee shall review and the RAMP indicators, MSME Champions Scheme performances, Udyam registrations done by Punjab and key performance of the state on all suggested interventions of the RAMP Programme. This high-level committee shall be chaired by Chief Secretary of Punjab. The committee shall meet once in 6 months to review the interventions under RAMP.

Following can be the members of the apex review committee: -

Chief Secretary of Punjab

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Administrative Secretary, Department of Industries

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Administrative Secretaries of Departments in the SRPC

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Nodal Officer, RAMP

MSME Digital Platform
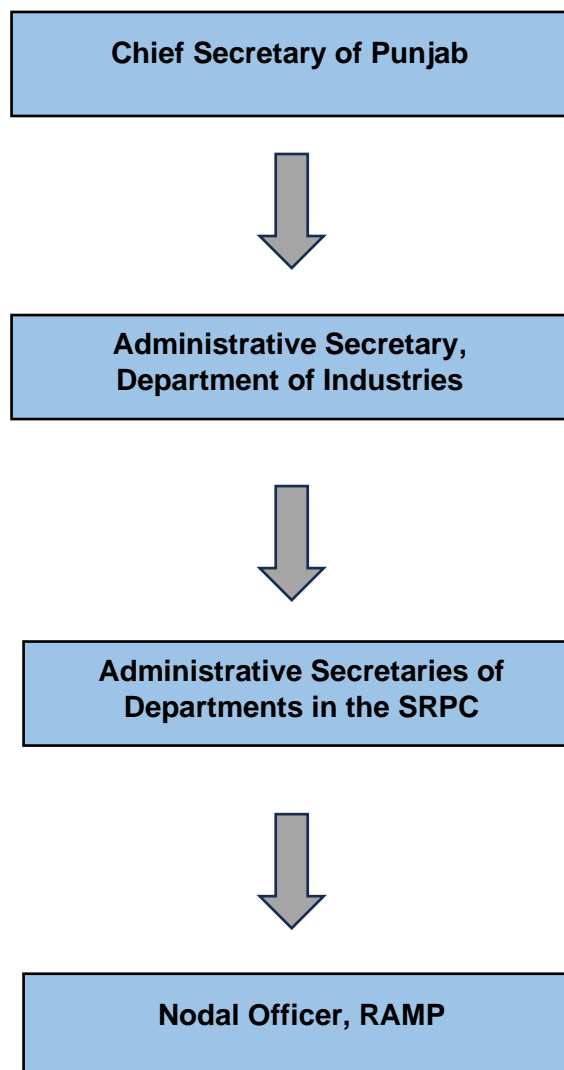
The MSME Digital Platform, suggested as a part of the RAMP interventions shall also help immensely in monitoring of the RAMP interventions. It shall be a web-based portal that will be created for departmental users to monitor the RAMP Programme being implemented across the state and monitor progress of the proposed RAMP interventions over the project duration.

Main interventions Under SIP (including MOMSME and state schemes-including convergence of schemes)	Total Budgetary Outlay	DLI	Convergence of existing scheme financing	Gap financing required through RAMP programme
Punjab One Platform: One stop solution for a Complete MSME Database, Facilitation and Handholding, and Information Dissemination	48.48	Result Area 1: Strengthening Institutions and Governance of the MSME Programme	-	48.48
Development of a MSME wing at the Department of Industries and Commerce, Punjab	34.1	DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes.	-	34.1
Set up an Export Promotion and Facilitation Cell within Industries and Commerce Department	12.05	DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes.	-	12.05
Capacity of Building of Select MSME units in Focus Sectors with an objective to enable scaling up of their Business	18.23	DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes.	-	18.23
Capacity Building of Officials of Department of Industries and Commerce on Focus Sectors, Subject Areas, and Programs of various Line Ministries of Govt of India	7.95	DLI 2: Accelerating MSME Sector Centre-State collaboration.	-	7.95
Punjab Online Dispute Resolution Platform: Resolving MSME Delayed Payments in Punjab through development of a state portal	6.72	DLI 6: Expanding access to Online Dispute Resolution Mechanism (ODR).	-	6.72
Setting up of MSME and GEM Facilitation Centres across all districts targeting an aggressive information dissemination drive through Awareness workshops	6.31	DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes.	-	6.31
Encouraging Women-Owned Businesses in Punjab: Leveraging Technology, Market Participation, and Financial Inclusion for SHG Growth	12	DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes.	PM Vishwakarma Scheme	12
Organize exposure visits for MSME units and officials of Department of Industry & Commerce in Punjab to boost MSME performance, increase production efficiency and promote outreach & awareness	15.6	DLI 3: Enhancing the effectiveness of Firm Capabilities	-	15.6
Digital Transformation of MSME	100	DLI 3: Enhancing	-	100

Units		the effectiveness of Firm Capabilities Schemes and Result Area 2: Support to Firm Capabilities and Access to Markets.		
Encouraging Green Manufacturing Practices in MSMEs by Making them Energy Efficient	193.75	DLI 5: Enhancing Effectiveness of CGTMSE and "Greening and Gender" delivery.	MSME GIFT Scheme	193.75
Augmenting Industrial Training infrastructure in Govt ITIs – Setting of a Training Studio to impart industrial training using Virtual Reality Technology	22.25	Result Area 2: (Support to market access, firm capabilities, and access to finance)	-	22.25
Encouraging Manufacturing Practices leading to Circular Economy in MSME units	2.8	DLI 5: Enhancing Effectiveness of CGTMSE and "Greening and Gender" delivery.	-	2.8
Empowering MSMEs by enabling them to produce quality products by linking them with Testing Lab, Quality Control Centers & R&D Centers	104	DLI 3: Enhancing the effectiveness of Firm Capabilities of RAMP	-	104
Deployment of "Vyapar Sahayak" to aid and support to MSMEs across districts in Punjab in availing the various benefits extended by Central & State Governments	38	DLI 3: Enhancing the effectiveness of Firm Capabilities of RAMP	-	38
Foster Institutional Capabilities and Strengthening Capacities of Government ITIs and Polytechnics in Punjab thereby creating pool of skilled resources for MSMEs	7.59	Result Area 2 Support to firm capabilities, and access to finance	-	7.59
Creation of enabling environment and facilitation towards adopting Industry 4.0 in high potential sectors of Punjab such as Automobile, Agriculture Implements, Machine tools & Hand Tools	50.15	DLI 3: Enhancing the effectiveness of Firm Capabilities Schemes	-	50.15

8.2 Summary of critical actions to be supported under SIP (Year 1-Year 4 of implementation period of SIP)

No	Critical Action (List)	Target Outputs and Outcomes				
		Year 1	Year 2	Year 3	Year 4	Year 5
1	Punjab One Platform: One stop solution for a Complete MSME Database, Facilitation and Handholding, and Information Dissemination	The intervention aims to target all existing registered and unregistered MSMEs in the state of Punjab over the period of 5 years				
2	Development of a MSME wing at the Department of Industries and Commerce, Punjab	The MSME wing set up at the headquarters aims to target and support all 6 lakhs+ registered MSMEs of Punjab				
3	Set up an Export Promotion and Facilitation Cell within Industries and Commerce Department	--	1250	1250	1250	1250
4	Capacity of Building of Select MSME units in Focus Sectors with an objective to enable scaling up of their Business	1000	1000	1000	1000	1000
5.	Capacity Building of Officials of Department of Industries and Commerce on Focus Sectors, Subject Areas, and Programs of various Line Ministries of Govt of India	The intervention aims to train 200+ government officials over the period of 3 years which shall have a larger impact on the existing MSME units in the state				
6.	Punjab Online Dispute Resolution Platform: Resolving MSME Delayed Payments in Punjab through development of a state portal	25,000	25,000	25,000	25,000	25,000
7.	Setting up of MSME and GEM Facilitation Centres across all districts targeting an aggressive information dissemination drive through Awareness workshops	92 sessions per year to be organized across all districts of Punjab. The intervention aims to target all registered and unregistered MSMEs in the state over the period of 5 years.				
8.	Encouraging Women-Owned Businesses in Punjab: Leveraging Technology, Market Participation, and Financial Inclusion for SHG Growth	1000	1000	1000	1000	1000
9.	Organize exposure visits for MSME units and officials of Department of Industry & Commerce in Punjab to boost MSME performance, increase production efficiency and promote outreach & awareness	--	125	125	125	125
10.	Digital Transformation of MSME Units	--	400	400	600	600
11.	Encouraging Green Manufacturing Practices in MSMEs by Making them Energy Efficient	--	625	625	625	625

12.	Augmenting Industrial Training infrastructure in Govt ITIs – Setting of a Training Studio to impart industrial training using Virtual Reality Technology across districts in Punjab	--	18,250	47,500	84,000	84,000
13.	Encouraging Manufacturing Practices leading to Circular Economy in MSME units	The proposed intervention aims to impact all MSMEs with focus on 12 focus sectors who wish to explore the concept of circularity and move towards sustainability				
14.	Empowering MSMEs by enabling them to produce quality products by linking them with Testing Lab, Quality Control Centers & R&D Centers	--	60,000	60,000	60,000	60,000
15.	Deployment of "Vyapar Sahayak" to aid and support to MSMEs across districts in Punjab in availing the various benefits extended by Central & State Governments	20,000	20,000	20,000	20,000	20,000
16.	Foster Institutional Capabilities and Strengthening Capacities of Government ITIs and Polytechnics in Punjab thereby creating pool of skilled resources for MSMEs	The proposed intervention aims to impact 2000 MSMEs across 12 focus sectors which will provide apprenticeships every year to 4000 students of Government ITIs and Polytechnics for creating pool of skilled resources				
17.	Creation of enabling environment and facilitation towards adopting Industry 4.0 in high potential sectors of Punjab such as Automobile, Agriculture Implements, Machine tools & Hand Tools	--	250	250	250	250

8.3 Summary Results Targeted

No.	Indicator	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5
1.	Number of MSMEs completing bronze level under ZED	1498	20000	20000	20000	20000	20000
	(of which women-headed)	NA	5000	5000	5000	5000	5000
2.	Number of women headed MSMEs accessing credit under CGTMSE	13136	15000	15000	15000	15000	15000
3.	Number of MSMEs accessing credit under CGTMSE for RECP/Greening investments	NA	2000	2000	2000	2000	2000
4.	Number of MSMEs initiated a case for Online Dispute Resolution through Samadhan Portal and direct referrals by State Facilitation Councils (SFCs).		NA	NA	NA	NA	NA
5.	Number of MSMEs completing silver level under ZED	15	2000	2000	2000	2000	2000
6.	Number of MSMEs completing gold level under ZED	12	1000	1000	1000	1000	1000
7.	Number of MSMEs completing Lean	-	1000	1000	1000	1000	1000
8.	Number of trained and accredited service providers in core focus areas developed in State.		200	200	200	200	200
	(of which women)		60	60	60	60	60
9.	Number of MSMEs on-boarded onto TReDS platform.	1206	20000	20000	20000	20000	20000
	(of which women-headed)		5000	5000	5000	5000	5000
10.	Number of MSME delayed payments cases resolved by ODR through the Samadhan Portal.		NA	NA	NA	NA	NA
11.	Training and capacity building of State Industries Department and DICs for outreach and implementation support of MSME Programme	Proportion of staff trained	250				

Thank You