

Skill Gap Study of Sikkim

with special focus on the MSME sector
in the state



Submitted by

ADVISORY & CONSULTANCY DEPARTMENT
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EXECUTIVE SUMMARY

TITLE OF THE STUDY

SKILL GAP STUDY OF SIKKIM WITH SPECIAL FOCUS ON THE MSME SECTOR IN THE STATE

I. Introduction

A Skill Gap Study of Sikkim with special focus on the MSME sector has been undertaken by Advisory & Consultancy (A&C) Department of NEDFi under Techno Economic Development Fund (TEDF) at a total Consultancy Fee of Rs. 42.35 Lakhs.

The objective of the study is to analyse the skill gap in the state of Sikkim mainly from the point of skilling requirement and demand of the MSME sectors of the state and to suggest systematic skill development strategy with projected timeline and expected expenditure so that the MSME sectors in the state can realize their full potential. Some of the main objectives are stated as under:

- a) To study the economy and labour & employment system of the state of Sikkim.
- b) To study Educational System and Technical Vocational education & Training system of the state.
- c) To identify the present & potential Skill Requirement of the state in the MSME Sector along with identification of the present (pre) skill level of the youth especially the potential enterprises developing among the youth of the state.
- d) To identify skill gap in the MSME Sector in the state, as Sector-wise & District-wise in the existing Primary (Agriculture & Allied), Secondary (Industry Sector) and the Tertiary (service Sector).
- e) To create a general marketing strategy for supporting industry groups/clusters/MSME & Start-ups in the state.
- f) To devise a suitable strategy for skill development in MSME Sector in the state of Sikkim with a projected timeline, expected expenditure and potential & concerned institutes.

This study is based on the findings of primary data, secondary data analysis, focus group discussions as well as in-depth consultation with stakeholders and also policy analysis. The study was started with secondary research, especially reports, articles related to skill development published by agencies such as World Bank, Asian Development Bank, International Labour Organisation, NSDC and the Reports published by different departments of Sikkim. The secondary study led us to understand the skill scenario in Sikkim and thereafter two questionnaires for 'MSME units' and the 'youth already employed in MSME for Understanding Proficiency' were prepared for the study.

The major part of the study is the primary data collection, in-depth consultation with the stakeholders and the analysis related to the skill gap in the MSME sector. It has covered the pre-skill analysis of the youth on two perspectives i.e., MSME/Industry/cluster and the employed persons in the MSMEs. In this connection, the primary survey on sample basis was conducted among 144 employees working in MSME sector/cluster and 117 MSMEs in all the four (4) districts of Sikkim. Thus, the sample consists of 261.

In addition to this, detailed interaction with various stakeholders was conducted which includes govt officials of the line departments like Department of Commerce & Industries, Tourism & Civil Aviation Department, Skill Development Department, Human Resource Development Department, Directorate of Handicrafts & Handloom, MSME Development Institute, Rural Development Department, Urban Development Department, Information Technology Department, Animal Husbandry & Veterinary Services Department, Agriculture and Horticulture Department; entrepreneurs of different sectors; employees of MSME/Industry Group/ cluster/start-ups, major vocational institutions including ITIs, Polytechnics, Senior Secondary School and private vocational institutes etc. Also, focus group discussions with the stakeholders such as teacher/trainers, school dropouts, educated unemployed, entrepreneurs, line departments etc. were organized to understand their point of view regarding the present skill and the required skill.

II. Overview of the State

Sikkim is located in the north-eastern part of the country in the eastern Himalayas and it is one of the smallest states in India. Sikkim is bordered by the Tibet Autonomous Region of China to the north and north-east, by Bhutan to the south-east, by the Indian state of West Bengal to the south and by Nepal to the west. The capital is Gangtok, in the south-eastern part of the state. Sikkim has 4 districts – East Sikkim, West Sikkim, North Sikkim and South Sikkim and the district capitals are Gangtok, Gyalshing, Mangan and Namchi respectively. Nepali is the most common language spoken in the state. Hindi and English are also widely spoken. For administrative conveniences the state has been divided into 453 Revenue Block, 32 Constituencies. Besides these divisions, the state has 16 sub-divisions, 165 Gram Panchayat units, 906 No. of Panchayat Ward, 8 towns and 1 Parliamentary seats each for Rajya Sabha and Lok Sabha.

The population of Sikkim has increased from 2,09,843 in the year 1971 to 3,16,385 in the year 1981, to 4,06,457 in the year 1991, to 5,40,851 in the year 2001 to 6,10,577 in the year 2011. The total working population as per 2011 census is 3,08,138 out of which 2,30,397 were main workers and 77,741 were marginal workers. In the state, the number of total workers which includes main and marginal workers accounts for 50.46% of the population and remaining is the non-worker (49.54%). It is found that the primary sector has provided 34% employment in Sikkim (2015-16) which is lower than the national average of 47.3%. It can be seen that in rural areas 39.6% workforce is engaged in primary sector and in urban areas only 3% workforce is engaged in primary sector. In the Secondary sector, 26.8% workforce is employed in urban as well as rural areas, which is higher than the national average of 22.5%. The urban workforce engaged in the secondary sector is 15.3% and rural workforce is 21.9%. In Sikkim, it is seen that tertiary sector plays a significant role as 39.3% workforce from rural as well as urban areas are engaged in this sector which is higher than the national average of 30.2%. The majority of the urban workforce i.e. 84.5% is engaged in tertiary sector while 38.6% workforce is engaged in rural areas. A close reading of the GSDP (Gross State Domestic Product) reveals that the highest contribution to GSDP is by the secondary sector followed by the tertiary sector and lastly the primary sector which contribute 63.8%, 28.5% and 7.7% respectively in the year 2017-18 at constant prices. The per Capita Income of Sikkim over the years shows the increasing trend which was 2,97,765 in 2017-18.

The Labour Force Participation Rate (LFPR), Worker Population Ratio (WPR) and Unemployment Rate (UR) accordingly to usual status for Sikkim are 2.62%, 2.94% and 29.33% respectively compared to the national average of 0.33%, 0.34% and 2.11% respectively. Worker Population Ratio (WPR) according to usual status for persons of age 15 years and above of different general education level for the state of Sikkim is 69.9% as compared to national average of 52.9%. The Unemployment Rate (UR) according to usual status for persons of age 15 years and above for the state of Sikkim is 1.6% as compared to the national average of 4.1%.

III. Education System of the State

The state occupies 13th position at national level and 3rd position among North Eastern states in literacy. As of Census 2011, literacy rate in Sikkim has seen upward trend and is 81.42 which is higher than the literacy rate of the country as a whole, as the national literacy rate was found to be 73% in 2011. It may be noted that the state's literacy rate was just 56.94% in 1991 and this has risen to 81.42% in 2011 which is very impressive. While the population of the state is 6.1 Lakh, it means that, around 4.9 Lakh of the population of Sikkim has the ability to read and write. The state has not only progressed remarkably in terms of literacy but has well addressed to gender parity as the literacy rates are found to be 86.55% for male and 75.61% for female.

There are 11 govt. colleges in the state viz. Nar Bahadur Bhandari Degree College, Tadong; Sikkim Govt College, Burtuk; Sikkim Govt Law College, Burtuk; Sikkim Govt College, Rhenock; Sanskrit Mahavidyalaya, Samdong (SMV); SIHNS (SHEDA); Sikkim Government College, Gyalshing; Sikkim Govt. Vocational College, Dentam; Sikkim Govt. Science College, Chakung; Sikkim Govt. College, Namchi; Sikkim government Arts College, Mangshila. Sikkim has one Central University established under an Act of Parliament of India. Apart from these, there are four private universities. These are Institute of Chartered Financial Analysts of India (ICFAI) University, Vinayaka Missions Sikkim University (VMSU), Shri Ramasamy Memorial (SRM) University, Sikkim Manipal University (SMU) etc. Sikkim operates three government run teacher education institutions and conducts the pre-service two years diploma programme in elementary education.

IV. Skill Development Ecosystem in Sikkim

An effort has been made to understand the skill development ecosystem operational in the state. It encompasses the key bodies for skill development in the state like Skill Development Department, Urban Development and Housing Department, Rural Development Department (RDD); enabling bodies such as State Institute of Capacity

Building and Livelihood Schools, Sector Skill Councils, National Council for Vocational Training (NCVT) and State Council of Vocational Training (SCVT), Apprenticeship Act; implementing bodies like Industrial Training Institutes, Polytechnics, Livelihood Schools, Vocational Training Providers and policy framework.

1. Key Bodies for Skill Development

Skill Development Department:

The Department was setup to evolve an appropriate skill development framework by creating opportunities for the youths of Sikkim especially for the dropouts and unemployed youths by providing various Industrial and skill development trainings for gainful job/wage employment & self-employment. The Department being under priority sector of the Government provides such opportunities of capacity buildings through craftsmanship training, apprenticeship training, livelihood training and trainings through DDUGKY, PMKVY among others.

Rural Development Department (RDD):

The RDD has been given the responsibility of development and management of the welfare initiatives in rural Sikkim and has been playing a significant role in the development and progress of rural Sikkim. Sikkim is a state which mainly depends on agriculture and tourism and the RDD has been working diligently toward translating the visions into reality and has successfully managed to achieve the goals set for the state. The department is divided into eleven cells/directorate/missions viz. –MGNREGA, Directorate of Panchayati Raj, SBM-GRAMIN, PMGSY, SIRD, Rural Housing, SRDA/NRLM, National Rural Drinking Water, Grievances Cell and the responsibility of each body is to ensure that the various schemes, policies and programmes of the department effectively reaches out to the end beneficiaries.

Urban Development and Housing Department

This department was established in the year 1990 by renaming the ‘Local Self Government’. It has multifarious functions keeping in view of the rapid urbanization and the requirement of infrastructures of the state. Some of the programmes of the department are Integrated Housing & Slum Development of Notified Slum Area under BSUP, Rangpo, Gangtok-I, JNNURM, Integrated Housing and Slum Development Programme at Singtam, Multi-Level Car Park at Deorali, Walkway Nam Nang, Improvement and Modification of Urban Roads in Gangtok, Construction of Pedestrian Fly-overs at Deorali, Snow Lion Entry Gate at Rangpo, Kissan Bazaar at Gangtok, Improvement work in and around Mintokgang and construction of RCC retaining wall along JN Road, Integrated Housing and Slum Dev of Old Slaughter House Area under BSUP, Parking yard at Chandmari, Upgradation and beautification of Makha and Rhenock Bazaars, Infrastructural facilities at Rangpo, Development and improvement of Urban Infrastructures at Mangan etc.

2. Enabling bodies for Skill Development

State Institute of Capacity Building and Livelihood Schools

The Chief Minister of Sikkim in his budget speech in the State Legislative Assembly on 26th March 2007 announced the establishment of a full-fledged Directorate of Capacity Building. All departments and Panchayats Raj institutions were also directed to set aside 2% of their total fund allocation for capacity building purposes. According to the data provided by SICB, 12281 no. of Unemployed Youths were enrolled, 9891 were trained, 3552 were placed & 4772 were self-Employed since Inception of the State Institute of Capacity Building (SICB).

Sector Skill Councils

It has been playing a vital role in bridging the gap between what the industry demands and what the skilling requirements ought to be. The SSCs operate as an autonomous body. The National Policy on Skill Development and Entrepreneurship, 2015 laid out Skill India Mission, and envisaged the creation of Sector Skill Councils (SSCs) by NSDC.

National Council for Vocational Training (NCVT) and State Council of Vocational Training (SCVT)

The National Council for Vocational Training, an advisory body at the national level that provides vocational course training to people., was set up by the Government of India in 1956 (the then National Council of

Training in Vocational Trades—NCTVT). The Council has been entrusted with the responsibilities of prescribing standards and curricula for craftsmen training, advising the Government of India on the overall policy and programs, conducting All India Trade Tests and awarding National Trade Certificates.

On the other hand, the State Council of Vocational Training (SCVT) is a part of NCVT and performs all functions at state level. Major works of the council are to select candidates for admission in Government and Private Industrial Training Institute of State and to organise examination of National Vocational/National Apprenticeship Council, Government of India for candidates of Government and Private Institutes after training. In Sikkim, 24 trades are affiliated under National Council of Vocational Training (NCVT) and 3 trades are running under State Council for Vocational Training (SCVT)¹.

Apprenticeship Act

The Apprentices Act, 1961 was enacted with the prime objective to utilize fully the facilities available in industry for imparting practical training with a view to meeting the requirements of skilled manpower for industry.

3. Implementing Bodies for Skill Development

Industrial Training Institutes:

There are currently Three (3) Government ITIs imparting vocational training courses affiliated to the National Council for Vocational Training (NCVT) and State Council for Vocational Training (SCVT). These are situated at Rangpo (East Sikkim), Namchi (South Sikkim) and Gyalshing (West Sikkim).

Polytechnics:

There are 2 Polytechnics in Sikkim, viz. Advanced Technical Training Centre (ATTC), Bardang, East Sikkim and Centre for Computers and Communication Technology (CCCT), Chisopani, South Sikkim.

Livelihood Schools

One of the unique characteristics of Technical and Vocational Education and Training (TVET) System in Sikkim is the presence of 39 numbers of Livelihood Schools spread across all the constituencies of Sikkim. All these Livelihood Schools are under State Institute of Capacity Building which was established in the year 2009 with the aim of imparting training, transfer of knowledge and building stronger capacities of the unemployed youth of the state. The aim of livelihood schools under SICB is to develop capacity among the unemployed and enable them to sustain themselves economically.

Vocational Training Providers

As per the data provided by Deputy Director, Skill Development Department, some of the other active vocational training provider are F Tech Future Technology Private Limited, Margdarshak Development Projects consulting Pvt Ltd, Assent Infotech Private Limited, Regal Institute of Management Studies Private Limited, Earthcon Constructions Private Limited, Animedia Pvt Ltd etc. They are providing services in different sectors like Beauty and Wellness, Security Services, Tourism & Hospitality, Medical and Nursing, Information & Communication Technology and so on.

Apart from that, it is found that vocational education has been initiated in the streams like IT Application, Travel & Tourism, Retail and Food Production in 30 Government Senior Secondary Schools. In order to teach all these trades, 194 vocational teachers have been appointed.

4. Policy framework for Skill Development

Various Schemes & Initiatives like Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Pradhan Mantri Kaushal Kendra (PMKK), Jan Shikshan Sansthan, Rozgar Mela, Capacity Building Scheme are being undertaken through NSDC. There are also some schemes which are undertaken through Directorate General of Training (DGT) viz. Craftsmen Training Scheme (CTS), Crafts Instructor Training Scheme (CITS), Skill Strengthening for Industrial Value Enhancement (STRIVE), Dual System of Training (DST), National Apprenticeship Promotion Scheme (NAPS), SANKALP etc.

MSME & Start-up Ecosystem

The state of Sikkim has a network of 45000 MSMEs, of which 14000 units (53.84%) are concentrated in the Micro sector, providing employment to 45000 people in the state as depicted in MSME Annual Report. Since 2015, enterprises that have filed their UAM are mostly from service sector constituting of 58% while the remaining units accruing to the manufacturing sector comprise of 42% of the total units². With the introduction of UAM, the state has 765 enterprises with Udyog Aadhar Number providing an employment of 9632, till Dec. 2019³. Out of 765 units with UAM, 65.75% registrations have been filed in the Micro sector followed by 30.45% of registrations in the small sector while Medium enterprises constitute of 3.79%.

The Government of Sikkim having pro-people attitude and the vision to reduce unemployment and create adequate self-employment opportunities in the long run has formulated the Skilled Youth Startup Scheme. The Scheme is intended to generate equitable entrepreneurial opportunities in rural as well as urban areas of the State, particularly among the educated unemployed youth to become self employed by setting up Manufacturing/Service/Business/Co-operative/Agriculture & allied activities by availing loan (category wise) with back ended subsidy assistance from the State Government @ 50% for BPL and @ 35% for rest on financially viable/ bankable projects. The objectives of the scheme are:

- i. To promote entrepreneurial qualities amongst the local unemployed youth and encourage them for setting up of any commercially viable/ bankable business venture in any sector including agriculture/horticulture/foodprocessing/animalhusbandry/handloom&handicrafts/retail/tourism/services/manufacturing etc. in the State in tune with the State Government policies.
- ii. To generate equitable entrepreneurial opportunities in rural as well as urban areas of the State through setting up of new self-employment ventures/projects by providing one-time non-refundable financial assistance of 50%/35% with back ended subsidy on project approval by the Banks/ PSUs/ financial institution.

5. Key bodies for Industrial Development in the state:

The key bodies for Industrial Development in the state are Department of Commerce & Industries, MSME - Development Institute, National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), Spice Board, Incubation Centres (Atal Incubation Centre Sikkim Manipal University Technology Business Incubation Foundation), North Eastern Development Finance Corporation Ltd (NEDFi) etc.

V. Start-up Analysis

India is the 3rd largest start-up ecosystem in the world with 40,000+ start-ups recognized by Department for Promotion of Internal Trade and Industry (DPIIT). The States have been recognised as the Best Performer, Top Performers, Leaders, Aspiring Leaders, Emerging States and Beginners. Among the states, Sikkim falls under the category of beginners. In 2019 under 'State/UT ranking framework', Sikkim comes under the emerging start-up ecosystem in Category-Y which includes all UTs, except Delhi, and all states in North East India, except Assam.

In order to reduce unemployment and create adequate self-employment opportunities in the long run in the state of Sikkim, the Government of Sikkim has formulated the Skilled Youth Start Up Scheme. This is one of the way forward to build an Atmanirbhar Sikkim as a part of Aatmanirbhar Bharat Abhiyan. The recent COVID-19 pandemic is an eye-opener for the youth to take advantage of the scheme and make themselves self-sufficient.

VI. Sectoral Demand and Supply Dynamics along with Alignment strategies for the growth of MSME

Despite many initiatives and schemes from both central and state government, the MSME has not seen the growth as per expectation. This is predominantly due to some of the challenges these MSMEs are facing. Some are due to inability of getting proper demand and market linkages and some due to unavailability of skilled manpower as per requirement. Some of the sectors have been chosen for detailed sectorial analysis based on certain criteria.

Unemployment is a national issue and the same can be said for Sikkim as well. Though the government in past has launched schemes like one family one job (OFOJ) for giving employment to the educated youth in the Government sector, but such a step has its own limitation. Sikkim is one of the states in the country where there is already high percentage of population who are engaged in government jobs. On interaction with various

stakeholders, it is understood that the youth here in the state are more inclined towards government jobs. Moreover, there is a stigma towards the private job outside the state after the skill training, particularly for the school dropouts, because of the less salary, at which it is difficult to sustain outside the state and also the life, climate, food habit and culture in the state is very different compared to outside. The mind-set and attitude of the youth in the state is more inclined towards the state government jobs and work within the state. There are instances that people have left good salaried private job outside the state for less salaried state government job. However, people and the youth have started realising that the state government jobs have reached a saturation point. Some of the youth who worked outside and have good exposure are returning to the state and instead of looking around for government jobs they are starting their own enterprise and some are even joining private jobs in the state. On visiting the various industries, it has been found that even today many high level positions are occupied by the people who come from outside the state who are not of Sikkim origin. This is predominantly due to the difficulty of finding the right local candidate for the job. Further, there are many jobs which are upcoming post covid which previously never existed in the state and demand has started coming up. It is also being observed that compared to youths outside the state the local youth here are better in communication skills and are more presentable. With this natural quality among the youth of Sikkim and with proper skill training for the required trades, the youths can be groomed properly for huge opportunities not only in India but also abroad. All these observations led the study team to do a detailed analysis of certain skills which is required and which needs to be developed among the youth for making them more employable and competitive. With this backdrop, 10 sectors have been selected viz. Handloom & handicraft, Floriculture, Animal Husbandry, Fisheries and Veterinary Services, Healthcare, Pharmaceuticals, Food Processing & Organic farming, Automobile, Tourism Sector, Beauty and Wellness Sector, Education and Training etc. Major/Top product or service, Favourable condition of state & its policies, Job roles, Skill Development challenges, Pre skill analysis of the youth, Skill Gap Analysis and Alignment strategies have been discussed for each sector.

VII. Skill Development Intervention & Implementation Model for the State

Sikkim is one of the unique states in the country, which is unique for its tourism; the hospitable nature of the locals; the magnificent art & craft making skills particularly the amazing weavers among the womenfolk; the incredible cane & the bamboo work of artisans; the mesmerizing folk songs & dances; the blended delicacies of India, Nepal & Bhutan and most importantly the culture of being together despite of the varied tribes & ethnic groups. There are limited jobs in the state and government being the major recruiter in the state, there is a craze for government jobs among the youths. Sikkim is the state where almost 10% of the population are engaged in government jobs, which is highest in the country as far as ratio is concerned. There are several skill development initiatives by central & state government; however, when it comes to placement outside the state a lot of attrition is seen. This clearly indicates for an intervention to change the attitude of youth towards work and which can only happen gradually when interventions are done from the very early childhood. Looking at the global trends & after interacting with various stakeholders in the state - government, training institutes/training provider, MSMEs, farmers, SHGs, artisans, youth, etc., we propose a Skill Development Model for the state for capacity development of the youth and inclining the skill towards job relevant skill. A detailed skill gap analysis based on parameters like education qualification, core skill, soft skill, marketing skill, enterprising skill and design skill for various job roles in different sectors which hinders the growth of the MSME in the state has already been done in the previous sections. Based on these skill gap analysis, a skill development model has been designed to intervene in the requisite areas. The interventions include Early Child Intervention, School intervention, Training institute intervention, Workforce development on job-relevant skill, Job match making, Creativity & Entrepreneurship intervention etc.

A model has been suggested where there will be a State Level Counseling Center named as Bhavishya. This center will have two major divisions viz. 'Skill & Academic development Lab' & 'Creativity & Innovation lab'.

The former lab i.e., 'Skill & Academic development Lab' will be connected to various industries through a unit called IRC (Industry Relationship Cell). Various industries will place demand to the division, the counselor will assess the exact requirement skill wise and academic requirement for the same. These counselors will further pass on the demand to the district level training & counseling centers, the demand further will be distributed to the block level institutes depending on the academic requirements. The trainer at the block level institutes will start the training at their institutes and there will be real time update on the progress of the training and continuous evaluation on the quality from the district level center. Progress will be kept transparent to the industry which has placed the demand. This will help the industries to get the human resources according to their plan and also will get a trained workforce according to their need, which will be cost savings for the industries. The process will be based on the lean concept of Toyota Production Systems where the waste will be eliminated i.e., there will be no excess or under training of the workforce and the availability of the workforce will be JIT (Just in time).

The later lab i.e., 'Creativity & Innovation lab' will be connected to various relevant institutes like IITs, NIDs, IIE, EDI, TiE, NEN, etc. Various workshops will be organized through these institutes which will be in blended mode. These workshops will cover design intervention, business plan preparation, motivation, product identification & idea assessment, IPR, Packaging, Digital marketing, etc. This lab will also manage incubation cells which may come up in the districts. All the activities of the incubation cell will be monitored by the lab. The lab will have a mentorship cell where there will be a large number of mentors across industries who can support the interested youths and incubates. All these activities will be cascaded to the district level training & counseling centers.

Each of the District training cum counseling center will have trainers for STEM, Skill trades & entrepreneurship and there would be counselors. These trainers will train the instructors and counsellors in the institutes in the district on a regular basis. In each of the institutes, i.e., school as well as college there will be a unit called Career Club which will be run by instructors & students of the institutes in a collaborative manner. Every year, a new set of students will be selected to form the committee to drive the activities of the career club, thus there will be a pride in driving such clubs and a leadership & team working quality will also be developed among the students. There will be an annual award ceremony for rating these career clubs. Thus, a competitive environment will also exist between the institutes for the success of these clubs.

The entire system will be digitalized so that this is sustainable even during pandemic like situations and can facilitate real time update among the stakeholders.

VIII. Best Practices in National Context

We have gone through several skill development initiatives across the country before arriving at the Skill Development Model which was proposed in the previous section. The model was developed by studying the various initiatives which are successfully operating in various parts of the country and considering the skilling requirement of the youth of Sikkim, keeping in mind the suitability of such training at ground zero. While designing the model, it was also kept in mind that it must be functional in case of pandemic like situations so that the skilling does not stop in case of outbreak of any pandemic in future where people cannot go out of their homes. Some of the best practices/initiatives which we have referred in this case are Bharat Skill Learning platform, Livelihood College in Chhattisgarh, Sewa Mitra platform of Uttar Pradesh, Telangana Academy for Skill & knowledge, Yuvashree programme of West Bengal etc.

IX. Recommendations

Recommendations are based on multi pillars, and each pillar is important for the growth of MSMEs in the state. After detailed analysis of the sectors we found out that there are some specific sectorial challenges and some common challenges of the entire industry. The detailed gap analysis has been done in the sectorial section; however, we have attempted to highlight the key recommendation for the common challenges & a snapshot of the sectorial challenges which hinders the overall growth of MSMEs in Sikkim.

Access to finance for growth & long-term sustainability

Most MSMEs are facing the problem of accessing finance for further growth i.e. buying of equipment, expanding facilities, sourcing of more raw materials, etc. Even though the government has taken multiple measures to provide MSME loans under various schemes, but many of the MSMEs do not have knowledge of it, some of them do not know how to avail the loans and some of them do not understand which financing option is suitable for their business while few others leave the process halfway because of regulatory loopholes that cause a delay in getting licenses, insurance, and certifications. Only few of the MSMEs are availing the government schemes for funding their business. Because of the small size of the businesses most of the MSMEs in the state do not fall under GST network and as a result they are not obliged to maintain the financial records/bookkeeping. This is one of the major reasons that the banks are not able to carry out the process of assessing the credit worthiness of the MSMEs. Thus, the MSMEs are not able to avail banking sector/organised loans and had to depend on the other lenders for working capital requirements even with high interest rates. Our visit to the smaller units revealed this issue and we recommend government to frame a different assessing process for measuring the credit worthiness of the small units so that they can also come and avail loan from organised banking system with much lower interest rates compared to private money lenders.

Access to technology for enhancing productivity

Apart from Pharmaceutical, all other businesses in the state are smaller in sizes. Whether it is manufacturing or service sector, we couldn't find much of the technological interventions which can increase the productivity of the businesses. We have mentioned these in our sectorial sections in detailed manner. The latest technologies can improve the productivity, but due to lack of expertise and awareness of the technologies, the MSMEs are not able to implement them in their businesses. We recommend creating a 'Scientific Research Body' in the state which would be a knowledge hub and this body have all the information of latest technologies being used worldwide in respective sectors and they work closely with local MSMEs and facilitate in the technology transfer activities. We see a lot of scope if premier institutes present in the NER region can also be involved in developing micro technologies in the local level through their research team and if they can be implemented on the ground. For instance, we could identify an opportunity of collaborating Design department of IIT Guwahati which has extensively worked on Bamboo and Bamboo cluster in West Sikkim. Much such collaboration could be established in different sectors between academia and MSMEs. The 'Scientific Research Body' can work on all these kinds of collaborations.

Access to market for higher revenue & growth

In the globalization era of today, MSMEs are facing cutthroat competition in the local, national and international market. Whether it is a handloom & handicraft product or a food product or it a service of beauty & wellness or a service of automobile repairing & maintenance, we see in every sector that there are alternatives which are at very low cost from the big global competitor. In fact, the competition is high even from the nearest competitor from comparatively larger MSMEs in Siliguri and Kolkata. To keep the position of local MSMEs intact in the long run in this highly competitive market, they need to increase their access to global market directly from the state without any geographical or regional barrier. E-Commerce penetration among the MSMEs is very low in the state and they are largely dependent on the middleman for the sales. Further, to compete in the open platform there is limitation in packaging & design solutions. The knowledge of IPR is also very less and they do not know how to protect the indigenous designs and other intellectual properties. We recommend having a 'Scientific Market Linkage Body' under the Department of Industries & Commerce. This body will collaborate with academia to build marketing strategies, bringing the best practices from across the world in different sectors, build research-based design solution suitable for the products of the state. Further, it can collaborate with premier institutes like IIMs and innovate the marketing strategies suitable for the MSMEs of the state. The body will also work on building a digital platform for the products of Sikkim and connect all the MSMEs to the platform and also train the MSMEs at individual level on how to promote their products on digital platform.

Awareness & access of the Government initiative & schemes

We recommend to create a SPV (Special Purpose Vehicle) while designing the schemes and initiative. On the basis of our survey and interactions with various MSMEs, we find that there is a special need for the involvement of the stakeholder at the design stage of the policy/initiative/scheme to make them demand driven, effective and implementable on the ground. One of the important reasons for slow or less acceptance of the scheme on the ground which we have noticed is lack of knowledge about the scheme and their likely benefits. We recommend the SPV to drive the outreach program for the schemes with better communication strategies through social media like WhatsApp, Facebook and FM radio in addition to local newspapers. The SPV should also be given authority to identify the MSMEs to be selected as beneficiaries and decision-making process in not more than two layers. The SPV should be created with participation from various stakeholders in the ecosystem which will bring interest and issues of all the stakeholders in the process. This SPV will be the implementing agency of the schemes at the ground level.

Access to innovative strategies for enhancing environmental performance

Few of the industries in the state, in particular the pharmaceutical sector is creating a lot of pollution and there is absence of proper treatment plant in the state. Further, there is not much structured process for measuring the environmental performance of each of the sectors. We recommend to create one SPV to design an environmental performance strategy for each sector and take necessary action plan for enhancing the environmental performances and also explore the opportunity of carbon trading. This SPV will also take necessary initiatives for solid waste management in the municipal areas and create a sustainable waste management plan for the entire state. This will further enhance the brand of organic Sikkim.

Access to skilled & quality human resources for enhancing productivity of local MSME & state to emerge as global supplier of productive human resources

While doing the analysis of the skill development programs which are ongoing in the state, it has been noticed that majority of the training program are rigid and fixed as set by national body in the main land India, which in a way is good as it sets a standard, however, an addition of local flexibility should be allowed to meet the aspirations of the youths, meeting the geographical needs and thus making the program unique & customized for the region. The state government needs to intervene in this and allow adding flexibility.

The sectoral recommendations for different sectors are given below:

SECTORS	RECOMMENDATIONS
Handloom & Handicraft	✓ Design studio at strategic locations
	✓ Digital design bank with mobile application
	✓ System Design solutions for handloom & handicraft products of Sikkim for seamless integration of all the stakeholders of the ecosystem
	✓ Semi-Automatic Loom to improve productivity, quality & ergonomic issues
	✓ Yarn bank for continuous supply of yarn
	✓ Marketing platform with export orientation
	✓ Setting up of Mini/Micro spun mill at district headquarters
	✓ Comprehensive training institute for design, product development, IPR, product diversification, skill training, enterprise training, etc.
Floriculture	✓ Health & Life Insurance unit under DHH
	✓ Setting up a packaging & designing unit
	✓ Setting up of a processing unit for dry flowers
	✓ Setting up of multiple organic input suppliers
	✓ Export oriented unit
Animal Husbandry (Poultry, Dairy, Piggery, Fisheries)	✓ Setting up of Floral Design Institute
	✓ Dairy Productivity enhancement
	✓ Dairy Brand value enhancement
	✓ Dairy Product advancement by setting up more processing units
	✓ Marketing portal/Mobile application
	✓ Setting up of Pig Research Centre
	✓ Pork Processing unit & market linkages
	✓ Implementation of specific pig rearing techniques
	✓ Fish Packaging unit
	✓ Cluster approach for trout farming
	✓ Schemes to attract youths
	✓ System design solution for optimised supply chain for perishable products
Healthcare	✓ Setting up of animal feed unit in the state
	✓ Setting up of Peripheral Healthcare system
	✓ Setting up of Diagnostic Centre
	✓ Setting up of State of art training centre with customised training according to region
	✓ Initiating Tele medicine centre & Tele Radiology
	✓ Setting up of a Traditional Medicine unit & Yoga centre

Pharmaceutical	✓ Enhancement of quota for Pharma seats & more number of Pharma Colleges
	✓ Establishment of Pharmaceutical Research & Development laboratory
	✓ Proper Waste management
	✓ Transparency of accountability & green audit
	✓ Road infrastructure development
	✓ Moving higher in the value chain
Food processing & organic farming	✓ Setting up of Common Facility Centre
	✓ Setting up of Design & Packaging bank
	✓ Marketing platform & digital marketing
	✓ Dedicated Food processing training institute
	✓ Seed Bank
	✓ Setting up of a certified Test Lab
	✓ Setting up of cold chain facilities at common facility centre locations
	✓ Facilities for transportation and supply chain management system to be updated and upgraded
Automobile & repairing	✓ Focused training institute/Courses
	✓ Setting up of Sales training institute
Tourism	✓ Dissemination of technology information
	✓ Awareness and capacity building workshops
	✓ User-friendly registration process for tour travel agencies, hotels, restaurants and homestays
	✓ Exposure visits to successful tourism destination
	✓ Involvement of local youth in the rescue team
	✓ Introduction of special courses like Birdwatching, paragliding, mountain hike and biking, butterfly and flower watching
Beauty & Wellness	✓ On demand Homebased service
	✓ Customised service
	✓ Pay as per service basis
	✓ Incorporation of digital technologies
Education & training	✓ Revamp the teacher training
	✓ Restructure of the curriculum for teacher training
	✓ Assessment of Quality of teacher
	✓ Changing mind set on vocational education
	✓ Improvement of the infrastructure