DRAFT DIAGNOSTIC STUDY REPORT

PHARMACEUTICALS CLUSTER
DEHRADUN, UTTARAKHAND

Submitted to

PMD DIVISION
SMALL INDUSTRIES DEVELOPMENT BANK OF INDIA

BY

APITCO LIMITED
Engineering Growth

HYDERABAD

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List of Abbreviations

APITCO	Andhra Pradesh Industrial & Technical Consultancy Organization
ANDA	Abbreviated New Drug Application
APM	Association of Pharma Manufacturers
BDS	Business Development Services
BHEL	Bharat Heavy Electricals Limited
BMOs	Business Member Organizations
CAGR	Cumulative Annual Growth Rate
CMC	Combined Medical Center
CRO	Clinical Research Outsourcing
DCA	Drug Control Authority
DFID	Department for International Development
DIC	District Industries Centre
DMA	Drug Manufacturers Association
DMF	Drug Master File
DPCO	Drug Price Control Order
DSR	Diagnostic Study report
EOR	End of Project Report
EU	European Union
FDA	Foods and Drugs Administration
FIs	Financial Institutions
GMP	Good Manufacturing Practices
GoI	Government of India
Govt.	Government
GTZ	Deutsche Gesselleschaft fur Technische Zusammenarbeit
HO	Head Office
ICICI	Industrial Credit and Investment Corporation of India
IDAs	Industrial Development Areas
IIDCs	Industrial Infrastructure Development Corporation
IIE	Integrated Industrial Estates
IPQC	In process Quality Control

IPR	Intellectual Property rights
ISO	International Standards Organization
KFW	Kreditanstalt fur Wiedefrraufbau
M&E	Monitoring & Evaluation
MBA	Master of Business Administration
MNCs	Multi National Companies
MRP	Maximum Retail Price
MSMEs	Micro Small and Medium Enterprises
NIPER	National Institute of Pharmaceutical Education and Research
PCB	Pollution Control Board
PMA	Pharma Manufacturers Association
PMD	Project Monitoring Division
PPP	Public Private Partnership
R&D	Research & Development
RMS	Raw Material Suppliers
SC 'M'	Schedule "M"
SIDBI	Small Industries Development Bank Of India
SIDCUL	State Infrastructure & Industrial Development corporation of Uttarakhand Limited
SMEs	Small & Medium Enterprises
SSI	Small Scale Industries
TIs	Technical Institutions
USA	United States Of America
USD	United States Dollar
WHO	World Health Organization

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Executive Summary

With a view to enable Indian SMEs to enhance their competitiveness, SIDBI has initiated project to provide demand driven and need-based Business Development Services (BDS) to, improve MSME access to finance (including term finance) and market oriented BDS, thereby fostering MSME growth, competitiveness and employment creation.

The basic objective of the conducting diagnostic study is to identify the effective leverage points and to design and implement interventions for development of market for Business Development Services (BDS) in Dehradun Pharma cluster

This diagnostic study was conducted with a view to identify the most effective leverage points and to design and implement interventions for development of market for Business Development Services (BDS) in Dehradun Pharma cluster

The primary and secondary data collected was compiled and a comprehensive analysis was made regarding status of the cluster, BDS providers, key issues and required interventions. A draft was thus prepared and based on the observation and suggestions given by the stake holders during validation and SIDBI/ M&E Agency, a final report will be prepared and submitted to SIDBI.

The cluster of Dehradun is mainly concentrated in a radius of 40-45 kms covering two districts i.e. Dehradun and Hardiwar. The cluster firms are engaged in production of mainly allopathic formulation in various dosage forms such as tablets, capsules, and liquid orals. Very few firms also manufacture ointments and injectables.

Cluster Snap Shot

Cluster Location	Dehradun, Haridwar Districts
Products	• Tablets • Capsules • Liquid orals • Ointments • Injectables
Nature / Type of firms	Formulations
Total number of SMEs	290
Location wise SMEs	• Dehradun - 55 • Haridwar - 95 • Roorkee - 140
No. industrial estates occupied by Pharma units	6
No. of Associations in Pharma sector	3
No. of Small enterprises	178
No. of Medium enterprises	112
Investment in Small enterprises	Rs. 445 Crores
Investment in Medium enterprises	Rs. 672 Crores
Annual turnover in Small enterprises	Rs. 740 crores
Annual turnover in Medium enterprises	Rs. 1008 Crores
Total annual turnover of SMEs	Rs. 1748 Crores
Employment in Small enterprises	8010 members
Employment in Medium enterprises	8064 members
Total employment in SMEs	16074 members
Presence of BDSPs	In adequate
Utilization of BDSPs by SMEs	Low

Overview of BDS market

As the regulatory requirements and technology of pharmaceuticals are fast changing on a regular basis, to understand and adopt the same is difficult for pharma SMEs as they can afford to employ qualified personnel exclusively for this purpose. Hence, the pharma SMEs has to depend on BDS providers to meet the requirement to improve their productivity, profitability and sustainability, some time even the existence. But the service providers are inadequate to cater the cluster. Due to short of service providers and high demand of available service providers, many a times these service providers are not in the reach of pharma SMEs. Therefore to make the BDS affordable by SMEs, it is suggested to empower existing BDS service providers.

Demand Side Constraints

- Lack of information of about the service providers
- Inadequate linkage among the service providers and Stake holders
- Less attention paid by the firms on BDS providers
- Due to high service charges, the pharma SMEs are not hiring

Supply Side Constraints:

- The mechanism is not upto the mark in identifying the cluster firms demand
- Weak penetration due to their own reasons
- Unfavorable economical conditions
- Restricted area of operations

Key Issues and Suggestive Interventions

S.No.	BDS Area	Key Issue	Suggestive Intervention
1	Raw Material	• Non availability of Bulk Drugs locally • Cost of Raw material is high due to transportation cost • Local raw material dealers are supplying only inactive materials	• Organizing the dealers meet strengthening them in getting financial assistance for enhancing their capacities. • Conducting small SME group meetings/ work shops common procurement • Facilitating establishment of raw material hub
2	Marketing	• Facing competition from MNCs and other GMP certified firms • Low profit margins • Delay in cash realization • High dependency on contracting firms	• Conduct workshops on modern marketing trends to SMEs by marketing consultants
3	Quality compliance	• No entrance to international market • Low level margins	• Conduct Awareness camps on GMP and linking the identified GMP consultants to SMEs
4	Finance	• No proper financial planning / management	• Conduct orientation camps for linking financial consultants to SMEs

5	Man power	• Non availability of trained manpower • Attrition rate is high • Non availability of manpower contractors/ agencies	• Facilitating the BDSPs in conducting the skill development training through training institutions
6	Infrastructure	• In adequate availability of testing labs. • Lack of common Testing laboratory	• Felicitating in establishment of common testing lab.
7	Energy Management	• Poor energy management	• Piloting energy audits in 10 SMEs
8	Pollution & waste management	• Non availability of common waste disposing system • Lack of knowledge in waste disposing	• Conduct a awareness campaign on waste management by involving environment consultants • Facilitating in establishment of common waste management system
9	Packing	• Low quality packing material availability in local • High price of packing material	• Organizing capacity building programme to the all type of packing material supplying firms
10	Information & communication Technology	• Not using advanced software in SMEs in all stages of value chain	• Conducting work shop on customized software

Chapter – 1

Introduction

1.1 Background

With a view to enable Indian SMEs to enhance their competitiveness, SIDBI has initiated project to provide demand driven and need-based Business Development Services (BDS) to, improve MSME access to finance (including term finance) and market oriented BDS, thereby fostering MSME growth, competitiveness and employment creation.

The basic objective of the conducting diagnostic study is to identify the effective leverage points and to design and implement interventions for development of market for Business Development Services (BDS) in Dehradun Pharma cluster

1.2 Methodology

For preparation of the Diagnostic study Report the following methodology was followed:

a) Collection of Secondary Data
b) Collection of primary data
c) Data Compilation and Analysis
d) Preparation of Draft Report

a) Collection of secondary data

The secondary data was collected through related Government Institutions and line departments like DIC, DCA, etc. Some of the data was also collected through reports and news letters published by Associations, News papers etc. The data was also collected through related web sites.

b) Collection of Primary Data

Initially a draft questionnaire was prepared and conducted a pilot survey of 4 firms. Based on the inputs and suggestions given by the MSME foundation, separate questionnaires were prepared for exporters / manufacturers and BDS providers.

c) Data Compilation & Analysis

The primary and secondary data collected was compiled and a comprehensive analysis was made with the help of Strategic Advisor and other H.O. officials regarding status of the cluster, BDS providers, key issues and required interventions.

d) Preparation of Draft Report

Based on the compiled data and analysis a draft DSR was thus prepared as per the specification given by Monitoring & Evaluation Agency which is to be submitted to SIDBI

Based on the observation and suggestions given by the stake holders during validation and SIDBI/ M&E Agency a final report will be prepared and submitted to SIDBI.

Chapter – 2

Frame Work

2.1 The Cluster

The Pharmaceutical cluster of Dehradun is mainly concentrated in a radius of 40-45 kms covering two districts i.e. Dehradun and Hardiwar. The cluster firms are engaged in production of mainly allopathic formulation in various dosage forms such as tablets, capsules, and liquid orals. Very few firms also manufacture ointments and injectables. The location map is enclosed as Annex I

2.2 Production Process

2.2.1 Tablets:

Tablet manufacturing, starting from raw material procurement to dispatch for marketing, involves 10 stages. As per the regulatory requirements, all the incoming raw materials are to be tested to set standards and as per prescribed procedures. The approved materials are charged into a mixing machine for dry mixing.

The dry mixed raw materials Binding agents are added to make dough. The dough is spread on trays for drying. Dried material is milled to obtain granules. To these granules, preservatives, lubricants are added and mixed. These final granules are charged to tabletting/ compression machine to produce tablets. These tablets are tested before proceeding for final packing. Packed product finally dispatched for marketing. (A sample of each batch is retained as ‘retained samples” for any future cross reference)

2.2.2 Capsules :

Capsules manufacturing, starting from raw material procurement to dispatch for marketing, involves 11 stages. As per the regulatory requirements, all the incoming raw materials are to be tested to set standards and as per prescribed procedures. The approved materials are charged into a mixing machine for dry mixing. To the dry mixed raw materials binding agent is added to make a dough. The dough is spread on trays for drying. Dried material is milled to obtain granules. To these granules, preservatives, lubricants are added and mixed. These final granules are filled in the empty gelatin capsules. Capsuling is done in an automatic/semiautomatic process. After filling, the same are subject to polishing to remove adhered materials and give a glow.

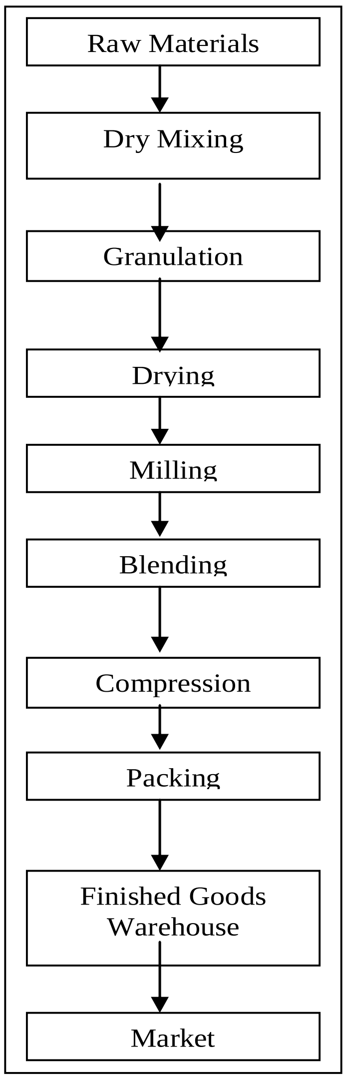
These capsules are tested before proceeding for final packing. This finally packed product will be dispatched for marketing.

2.2.3 Process in the manufacturing of liquid orals.

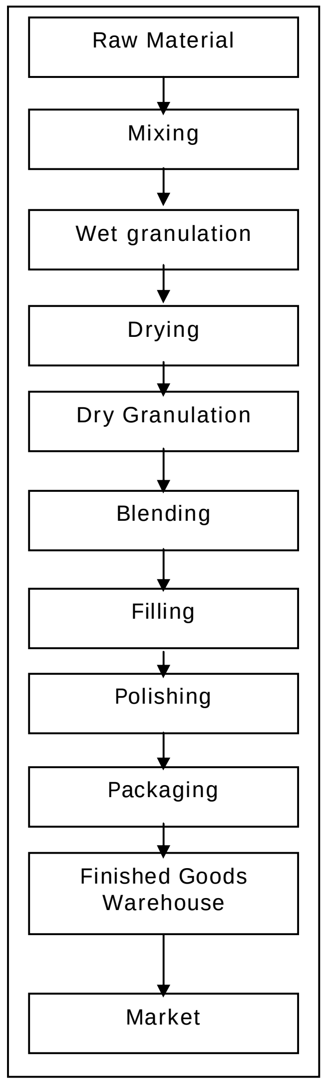
Liquid syrup manufacturing, starting from raw material procurement to dispatch for marketing, involves 9 stages. As per the regulatory requirements, all the incoming raw materials are to be tested to set standards and as per prescribed procedures. In a tank, prepared sugar syrup / take sweetening agent such as liquid glucose, sorbital, etc., to sugar syrup/ sweetening agent, add the approved materials and mix. After completion of mixing, fill into a washed & dried bottles, sealed the cap, affix the label and proceed for final packing. Finally approved product will be dispatched for marketing. (A sample of each batch is retained as 'retained samples" for any future cross reference).

The flow charts of manufacturing tablets, capsules and liquid orals are as below.

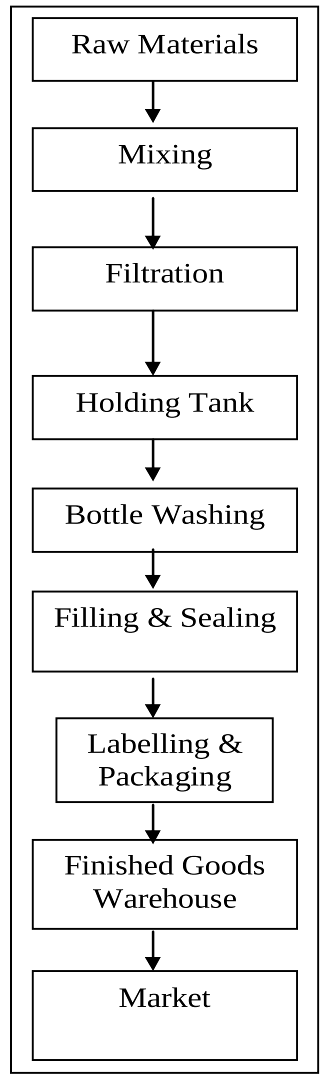
Tablets Mfg. Process



Capsules Mfg. Process



Liquid Orals Mfg. Process



2.3. History of the Cluster

This is a policy induced cluster with a history of 3 to 4 years only. In January 2005, the Government of Uttarakhand in a policy initiation gave tax holiday on pharmaceuticals by a doing away with excise duty (@ 16% on Ex-factory price) on the product. The impact of this in many cases led to waiver in excise duty component which is as much as the net value addition by firm. In an industry that works on very small margins this came as a big incentive to pharmaceutical firm all over India, to relocate to Uttaranchal. To take the advantage of this benefit many entrepreneurs form other states like Gujarat, Maharashtra, Andhra Pradesh, etc. established their units in Uttarakhand

In 2007, GTZ initiated BDS Development Programme for this Cluster. The main interventions tried by GTZ were for quality up gradation, environmental related issues and marketing. GTZ also organized workshops on quality compliance, marketing and energy management etc., by engaging service provides at different locations in the cluster. GTZ in collaboration with local branch of SBI and SIDBI organized loan fair for providing guidance to pharma SMEs on their SME financing schemes. It is estimated around 35% of local entrepreneurs attended these fair and collected information on these schemes. Local pharma manufacturers association took steps to link with local educational institutions for up-gradation of skill of their manpower. Due to these interventions, personnel of some of Pharma SMEs also benefited.

***However, though various awareness generation camps, workshops, etc have created awareness on BDS, up scaling of BDS providers as a means to address issues related to loaning, training, quality and market provision of the cluster is yet to materialize*.**

2.4 Global, National Scenario and features of benchmark cluster

2.4.1 Global Scenario

Global pharmaceutical industry is robust and steadily growing. The industry consists of large, medium and numerous small-scale units providing huge employment opportunities and producing large quantities of life saving drug. This market has provided growing opportunities for Indian pharmaceuticals industry too. The global pharmaceutical markets were estimated at US$712 billion in the year 2007 growing at 6.4 percent.

The market size of USA is estimated at US$295-305bn (growing at 4-5 percent) followed by top 5 European countries (EU-5) with an estimated market size of US$135-145bn (growing at 4-5%), Emerging markets, viz., Brazil, China, India, Mexico, Russia, South Korea & Turkey had an estimated market size of US$85-90bn. (growing at 12-13%) and Japan with an estimated market size of US$64-68bn (growing at 1-2%).

World market for patent expired molecules (pure generics and branded generics) is valued at US$ 102 billion in 2006 is expected to grow to US$ 160 billion by 2010.Market size for pure generics is US$ 65 billion (with growth 11% in 2008). World trade in APIs(bulk drugs) and their intermediates expected at US$ 70 billion. Global market for Contract Research and Manufacturing services (CRAMS) is estimated at US$ 48 billion. It is expected to grow at a CAGR of 10%.

Table: 1.0 Global Pharmaceutical Market Size & Growth Rates (2001 to 07)

Global Sales (US$ bn.)/ Year	2002	2003	2004	2005	2006	2007
Total World market (current US$)	428	499	560	605	649	712
Growth Over Previous year (constant US$ Growth)	9.50%	10.30 %	8.00%	7.30%	7.10%	6.40%

Source: IMS *Health Market Prognosis (includes IMS Audited and Un-audited markets) All information current as of March 28, 2008*

2.4.2 National Scenario

2.4.2.1 Overall

The drugs & pharmaceutical industry in India has made phenomenal progress in the last 10 years. The pharmaceutical industry comprises of Dosage formulation and bulk drug manufacturing units. From simple headache pills to sophisticated antibiotics and complex cardiac compounds, almost every type of medicine is now made indigenously, playing a significant role in improving the health standards of the people.

Bulk drug industry is the backbone of the self- reliant Pharma industry in India. Today 90% of the domestic bulk drugs requirement is met by the Indian industry itself. A highly organized sector, the Indian domestic pharmaceuticals market size is estimated at US$ 10.76 billion in the year 2008, expected to grow at 9. 9 percent till 2010 and there after at a CAGR of 9.5 percent till 2015.

The industry in India meets around 70% of the country's demand for bulk drugs, drug intermediates, pharmaceutical formulations, chemicals, tablets, capsules, oral and injectibles. There are about 250 large units and around 8000 SMEs, which form the core of the pharmaceutical industry in India (including 5 Central Public Sector Units).

The Details of Pharmaceutical Clusters in India (Turnovers & Employment):

S.No.	State	Production value per annum (Rs in Crores)	Estimated Employment
1	Maharashtra (Mumbai ,Pune and Aurangabad)	12000 - 15000	65000
2	Gujarat (Ahmedabad and Baroda)	10000 – 12000	55000
3	Delhi , UP and Haryana	5000	25000
4	MP (Indore Cluster)	2500	15000
5	Uttarakhand (Dehradun Cluster)	2000	20000
6	AP(Hyderabad cluster)	8186	20000

2.4.2.2 Exports

Indian exports increased from a negligible amount in early 1990s to US$ 11183.49 million by 2007-08. The exports of drugs, pharmaceuticals & fine chemicals from India grew at a compounded annual growth rate (CAGR) of 17.8% during the five year period 2003-04 to 2007-08. **(In US $ Million)**

S.No	Importer	2003	2004	2005	2006	2007	2008
1	USA	455.66	492.27	603.93	715.54	989.27	1,375.42
2	Germany	161.68	211.17	206.52	253.01	296.78	337.41
3	Russia	107.17	140.05	172.15	242.84	291.88	297.97
4	UK	89.05	109.10	130.41	187.75	199.12	267.82
5	China	92.96	102.33	121.21	177.04	151.62	203.40
6	Brazil	76.07	87.09	108.96	140.39	171.60	187.03
7	Canada	52.94	90.09	110.20	118.56	124.22	183.41
8	South Africa	25.29	38.26	48.19	101.02	110.77	161.62
9	Nigeria	76.00	82.78	102.99	118.69	139.09	160.06
10	Other countries	2986.84	3857.01	4669.76	5788.92	6824.73	8009.35
Total		4123.66	5210.15	6274.32	7843.76	9299.08	11183.49

(*Source: Pharmexcil, Hyderabad)*

At present India ranks 4th in volume terms and 13th in value terms. The country accounted for 8 percent of global production and 2 percent of world markets in pharmaceuticals in recent year .According to Ministry of Commerce & Industry pharmaceutical sector is estimated to have created employment of 2,20,000 people.

Impact of product patent

In 2004 India shifted from process to product patent. Under the product patent regime, Indian companies cannot manufacture and market products under patent. Companies interested in the products have to get license from the innovator company (patent holder). Majority share of the profits will go to the patent holder. Thus Indian companies will not be able to produce or export patented drugs. The competition in the off patent products area will increase. The effect will be felt in 5 to 10 years time. During this period Indian companies have to get into the drug discovery area.

2.4.2.4 Future outlook:

Pharma Policy 2006 states that " It is estimated that by the year 2010 industry has the potential to achieve Rs. 1 00 000 Crores in formulations with the bulk drug production going up from Rs. 8000 Crores to Rs. 25 000 Crores". This is a reasonable target considering the opportunities in the domestic and export marketing. The trends which will influence the growth of Indian pharma industry are:

- increasing R&D costs will lead to more consideration among international companies with in 5 years, the top 10 pharma companies are expected to control over 60% of the world market (in value terms)
- Indian pharma companies are expected to move up the value chain from merely being reverse engineering to developing of proprietary products
- MNCs will make an aggressive bid for the Indian market , as India moves from TRIPS, and international companies register their new drugs for patents
- All SMEs have to comply with GMP requirements and supportive human resource base
- Smaller companies, which had so far benefited from the protective regime, need to become niche contracting units, (geographic/ technology based)

Dehradun pharma cluster has to catch up with these national terms for excellence. The pharma industry has to grow while facing the emerging trends.

2.4.3 Benchmark Cluster:

Benchmark firms in the Hyderabad pharmaceuticals cluster in Andhra Pradesh is considered as a benchmark in parameters like technology, support institutions, BDS provision, etc.

A comparison has been done between the firm belongs to the benchmark cluster and the firm belongs to the Dehradun cluster. The findings are as follows:

Areas	Bench mark cluster firm	Dehradun cluster firm	Reasons
Raw material availability at the cluster level	High	Low	No bulk drug manufacturing No bulk drug dealers available
Adherence to current good manufacturing practices by firm	Medium	Low	Limited GMP consultants Available at high fees
Availability of skilled manpower	High	Low	No linkage in adequate local training institutions
Availability of good testing labs	High	Low	Limited availability of local laboratories
Presence of strategic local business development service providers	Medium	Low	Limited availability of strategic BDSPs and low network with SMEs
Industry and Institutional linkages	Medium	No	No linkage
Local knowledge base	High	Low	Newly established cluster

2.5. Vital Statistics

The Dehradun Pharma cluster is concentrated in a spread of 60-65 kms covering two districts i.e. Dehradun and Hardiwar. In Dehradun the firms are located in three Industrial parks – (1).Selaqui Industrial park (set up by SIDCUL), (2).Pharma city (Set up by SIDCUL) and (3).Sara Industrial Estate. In Haridwar district the firms are located in three Industrial Estates, viz Integrated Industrial Estate, Haridwar (set up by SIDCUL), Bhagavanpur industrial Area, Roorkee and Devabhoomi Industrial Estate, Roorkee. The distributions of firms in these places are detailed below: which detailed as given below.

Table 4 : Spread of SMEs

District/ Location	Products	location	No. of Units	No. of Small enterprises	No. of Medium enterprises
Dehradun	Tablets Capsules Syrups	Silaqui Industrial park	42	32	23
	Tablets Capsules Syrups	Pharmacity	05		
	Tablets Capsules Syrups	Sara Industrial estate	08		
Haridwar	Tablets Capsules Syrups	Integrated industrial Estate	95	56	39
Roorkee	Tablets Capsules Syrups	Bhagavanpur industrial area	75	90	50
	Tablets Capsules Syrups	Devabhoomi industrial area	65		
Total			**290**	**290**	**290**

Source: Field data

Beside there are 12 large firms (> Rs.10 crores investment on plant & machinery), with an estimated of Rs.1500 crores and an estimated employment around 2000 persons.

2.5.1 Employment

It is estimated that that on an average a small firm employs around 45 persons and a medium firm employs around 72 persons. The details of estimation are as follows:

Table 5: Existing Employment in SMEs(Estimates)

Employees	Small Enterprises	Medium enterprises
Management	5	8
Non Management		
1. Skilled	10	12
2. Semi skilled	20	35
3. unskilled	10	25
Total	**45**	**72**

Source : Field Data

The economic implications of the units are as follows.

Table 6.0 : Economic Implications of SMEs

Sl. No	Type of Industry	No. of Units	Investment (In Rs. Crores)	Total Annual Turnover (Rs in crores)	Employment
1	Small Enterprises	178	445	740	8010
2	Medium Enterprises	112	672	1008	8064
	Total	**290**	**1117**	**1748**	**16074**

Source: information from DICs of concerned districts.

Hence, the cluster as a whole have, 302 firms (MSME & large) employ 18074 persons with a turnover of Rs.3248 crores.

2.5.2 Business Development Service Providers (BDSPs)

Strategic BDS is provided by strategic and embedded BDSPs. The strategic BDS provides are public and private. The private strategic BDSPs are organized, (institution/association) or Unorganized (individual). Their presence in the cluster is as given below:

Strategic and Generic BDS Providers in the Cluster:

Generic

1. Auditing firms (50)
2. Telecommunications (4)
3. Transport Services(20)
4. Legal advisors (100)
5. Labour Contractors (5)

Strategic

1. GMP Consultants(4)
2. Testing Labs (2)
3. Financial Institutions (60)
4. Technical institutions (6)
5. DIC
6. SIDCUL

The embedded BDS providers are the value chain partners. However, not each value chain partners does provide embedded BDS. The value chain partners include the following:

a) Machinery Suppliers (4),
b) Traders (20),
c) Contractee firms (Outs side of the cluster),
d) Raw materials suppliers (4),
e) Packing material suppliers (15).

2.5.3 Who Does Who Pays Matrix

BD Services	Who does	Who Pays	Payment Mechanism
Finance/Taxation	• Chartered Accountants • Tax Consultants	SMEs	Direct Direct
Legal Advisors	• Advocates	SMEs	Direct
Consultants	• Management Consultants • Exports consultants • Central and Excise Consultants	SMEs	Direct
Technology improvement	• Technical Consultants	SMEs	Direct
Quality Assurance	• WHO-GMP consultants • Quality Testing Centres • ISO Certification consultants	SMEs	Direct
Human Resource	• Training Institutes • Labour contractors	SMEs	Direct
Marketing Development	• Marketing Consultants	SMEs	Direct
Infrastructure	• Common testing lab facility through PPP mode	DC-MSME BMOs	Grant Direct Contribution

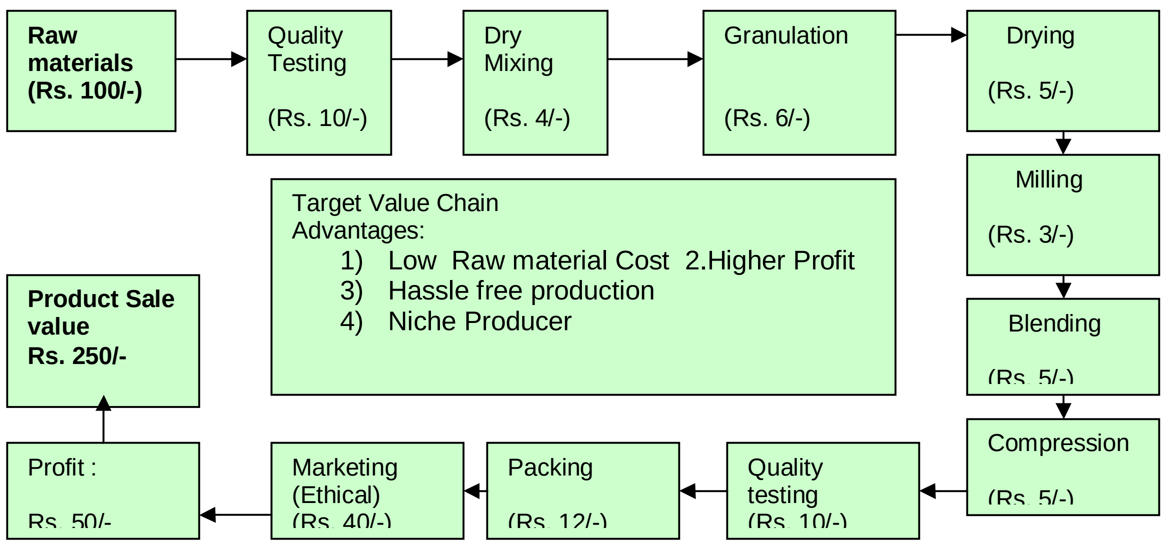
Chapter– 3

Analysis

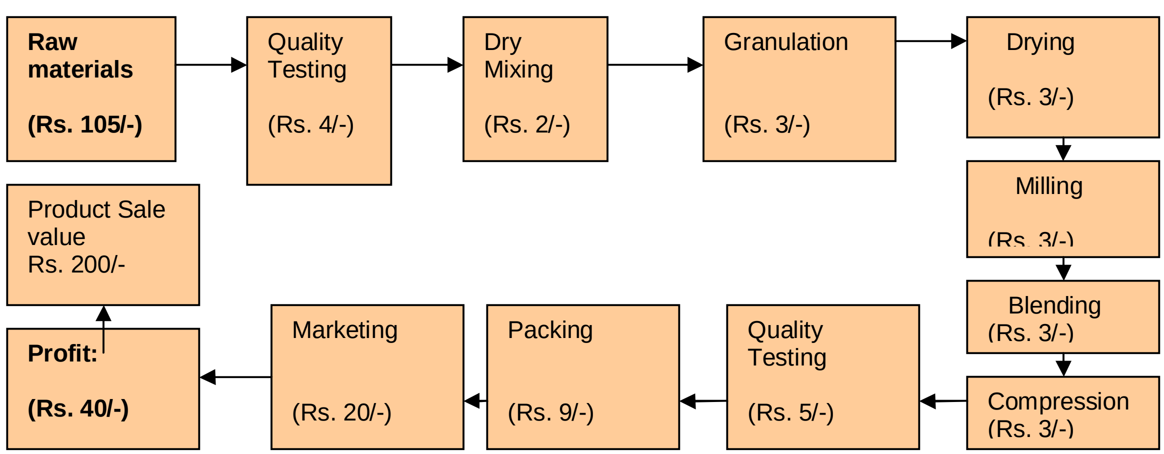
3.1. Comparative Value Chain Analysis

More than 80% of the Dehradun cluster units are not GMP complaint. The comparative value chain analysis of a unit which is following Good Manufacturing Practices (GMP) with a unit which is not following appears below:

Value Chain for a formulation unit A which implementing GMP compliances (Assumption: Cost of Raw Material assumed as Rs. 100/-)



Value Chain for a formulation unit B which not implementing GMP compliances (Assumption: Cost of Raw Material assumed as Rs. 105/-)



The value chain has been analyzed and the following are conclusions:

Out of the two cluster firms one is following good manufacturing practices as prescribed whereas the other is not following. The cluster firm A procures raw materials from approved vendor whereas the other cluster firm B is procuring raw materials from open market, which is normally a slightly higher price.

The cluster firm A prescribed test methods to test the quality of their raw materials whereas the Firm B does not follows as prescribed. This provide some cost saving.

The cluster firm A can able to sell their product through profitable mode, whereas the firm B needs to depend on local traders to market their product. The cluster firm A realizes higher profit margins than the firms B in selling through trade network.

Considering overall situation, even though the cluster firm A spends higher production cost, the final profit realization is higher compared to the other firm B.

The cluster firm A not only realizes higher profit margins and also command better market respect. The chances of product failure and product return are very less. Due to some reasons, if the product fails during its life time, the reasons for failure can be investigated very easily.

3.2 BDS Analysis

3.2.1 Overview of BDS Market

As the regulatory requirements and technology of pharmaceuticals are fast changing on a regular basis, to understand and adopt the same is difficult for pharma SMEs as they can afford to employ qualified personnel exclusively for this purpose. Hence, the pharma SMEs has to depend on BDS service provider to meet some these requirement. By address these changing requirements, the pharma SMEs can improve their productivity, profitability and sustainability, some time even the existence.

As the demand for various categories of BDS providers are increasing due to presence of large base of small and medium enterprises in Pharma sector, the service providers are inadequate to the cater the industry. Due to short of service providers and high demand of available service providers, many a times these service providers are not in the reach of pharma SMEs. Therefore to make the BDS affordable by SMEs, it is suggested to empower existing BDS service providers.

3.2.3 Public BDS Providers

a) Small Industries Development Bank of India (SIDBI)

SIDBI provides financial support for SMEs under different schemes, however due to lack of awareness relating to this scheme; very few (7%) cluster firms have utilized the services of SIDBI products.

b) Other Banks & Financial Institutions

Uttarakhand state had a presence of 55 bank branches in the cluster area. Dehradun district has a larger concentration of bank branches in the urban regions. At present the cluster firms are having reasonable linkage with the banks in availing term loan, cash credit and other non-fund based limits. The banks have positive attitude towards the cluster firm.

Cluster firms are utilizing the services of the banks and financial institutions, but due to the high interest rates, SMEs are postponing of the investment on the facilities required for GMPs. SMEs request the banks for separate financial package with subsidized interest rates. The lead banks of the cluster districts are Punjab National Bank and State Bank of India. The initiations of the Lead Banks lead to growth of the pharma industry.

c) *District Industries Center (DIC), Dehradun*

At present the services of DIC are confined to registering of EM2 for cluster firms, arranging required licenses through single window scheme, implementation of government promotional schemes, coordination with banks and conducting awareness programs on government Schemes for the benefit of local pharma SMEs.

SMEs are utilizing the services of the DIC. SMEs are expecting the high range of services like energy audits, environmental related services, and knowledge base services from DIC. But no such services are available with DIC

d) State infrastructure & Industrial Development Corporation of Uttarakhand Limited, (SIDCUL):

State infrastructure & industrial Development Corporation of Uttarakhand Limited, (SIDCUL), a government of Uttarakhand enterprise was incorporated as a limited company in the year 2002 with main objective to promote industries and develop the infrastructure. To meet this objective SIDCUL has established 6 industrial estates, wherein large number of pharma SMEs has set-up their facilities.

e) Pollution Control Board

The Uttarakhand State Pollution Control Board monitors water and air pollution levels with specific reference to the local Pharma Units. The PCB provides services like testing effluents and norms for waste & environment management.

f) Drug Controller of Uttarakhand

State drug controlling authority is providing services in the area of licensing for manufacturing, distribution and storage of drug substance and drug products in the state. It monitors the working of these units and also monitors the quality of the products produced in these units.

3.2.4 Industry Associations

There are three industry associations in the cluster catering to the needs of the manufacturers in the 3 concentrations:

a. Drug Manufacturers Association (DMA), Dehradun : 45 members
b. Pharma Manufacturers Association (PMA), Roorkee: 95 members
c. Association of Pharma Manufacturers (APM), Haridwar : 60 members

All these associations are new and operate from the premises of the president. However, the Association has their operational infrastructure and human resources, in the form of a typist and office work boy. At present the associations are providing the following services/activities

- They assist the newly set-up units to collectively negotiate with the Government regarding disputes on land registration, pollution, labour laws etc.
- They are active in lobbying against the government to solve issues on pollution control and lack of continuous supply of power
- Representing the Government on tax related issues.
- Organizing periodical meetings with the members and sharing the information on various changes of policies, and welfare issues. Provide information relating to various pharma exhibitions/trade fairs. It may be mentioned here that 3 associations have good understanding and operate in hormony.

3.2.6 Assessment of BDS Market

Services	BDS Category	Availability	Utilization status
Finance/ Taxation	• Chartered Accountants • Tax Consultants	Locally available	Medium
Legal Advisors	• Advocates	Locally available	Low
Consultants	• Management Consultants • Exports consultants • Central and Excise Consultants	Not Readily available	Low
Technology Improvement	• Technical Consultants	not available	Low
Quality Management	• Quality Testing Centres • ISO Certification • WHO-GMP	Not locally available Locally available	Low Low
Human Resource	• Manpower Training	Available	Low
Marketing Development	• Marketing Consultants	Not available	Nil
Research & development	• Scientists	Not available	Nil

The major problems on demand side based on the above discussions

- Lack of information of about the service providers
- Inadequate linkage among the service providers and Stake holders
- Less attention paid by the firms on BDS providers
- Due to high service charges, the pharma SMEs are not hiring

Supply Side
• The mechanism is not upto the mark in identifying the cluster firms demand • Weak penetration due to their own reasons • Unfavorable economical conditions • Restricted area of operations

3.2.7 Nature of Cooperation:

BDSPs	Business Development Services										
	Raw Material	Technology improvement	Marketing	HRD	Quality compliances	Finance	Logistics	Energy	Safety	Environment	Information Communication Technology
Public											
NIPER	0	1	0	1	0	0	0	0	0	0	0
FIs/Banks	0	0	0	0	0	2	0	0	0	0	0
Technical Institutes	0	0	0	1	0	0	0	0	0	0	0
Private Organised											
RMs	1	0	1	0	0	0	0	0	0	0	0
MCs	0	2	0	0	1	0	0	0	1	0	0
Ts	3	0	2	1	0	0	0	0	1	0	0
FCs	1	0	0	0	2	0	0	0	0	0	0
PMS	0	0	0	0	1	0	0	0	1	0	0
GMPCs	0	0	0	0	1	0	0	0	1	0	0
BMOs											
DMA	1	2	1	1	1	1	0	0	0	0	0
APM	1	2	1	1	1	1	0	0	0	0	0
PMA	1	2	1	1	1	1	0	0	0	0	0
Private Unorganized											
FCs	0	0	0	0	0	2	0	0	0	0	0
EnvCs	0	0	0	0	0	0	0	0	0	1	0
EneCs	0	0	0	0	0	0	0	1	1	0	0
SCs	0	0	0	0	0	0	0	0	1	0	0

Note: Scoring criteria for existing linkage type:

0 - No linkage, no impact on group

1 - Poor linkage, very little impact

2- Fair linkage, some impact

3 - Good linkage, significant impact

4 - Very Good linkage, excellent impact

NIPER – National Institute for Pharmaceutical Education & Research
FIs/Banks- Financial Institutions/ Nationalised Banks
RMs – Raw Material suppliers
MCs – Machinery Suppliers
Ts -Transporters
FCs – Financial Consultants
BMOs – Business Members Organization
EnvCs – Environment Consultants
EneCs – Energy Consultants
SCs – Safety Consultants
PMS -- Packing Material Suppliers
DMA – Drug Manufacturers Association
APM – Association of Pharma Manufacturers
PMA – Pharma Manufacturers Association

Conclusions

- BDS providers like Tax Consultants, Charted accountants, and legal advisors are sufficiently available locally. But the SMEs are not utilizing their services and since there is a week linkage between them.
- GMP consultants are limited available in local and the few available services are also very expensive.
- BDS providers in the areas of Marketing, Energy & Environment, not available locally.
- There are very few Raw material suppliers, packing material suppliers, testing laboratories, and they are not in a position to cater the needs of the SMEs
- Lack of linkage with institutions
- The transport facilities are available, but the transportation costs are very high.
- There is a good linkage between the financial institutions and SMEs. But the SMEs are not willing to utilize the financial assistance for GMP of those since the interest rates are high.
- SMEs are utilizing the services of the Public BDS providers.

- SMEs are not thoroughly aware of the advantages of the Business Development Services
- Associations are more concentrating on the advocacy problems of the industry.

Analysis of Business Operations

Business operation	**Problems being faced by firms in the present mode**	**Suggested Solution**	**Required BDSPs / interventions**
Raw Material	• Non availability of bulk drugs locally • Cost of raw material is high due to transportation cost • Local raw material dealers are supplying only inactive materials	• Organizing dealers meet • Conducting small SME group meetings/ work shops to test facility of common procurement • Facilitating establishment of Raw material hub, if possible	• Strengthening them in getting financial assistance for enhancing their capacities • Create linkage with raw material suppliers of benchmark cluster
Marketing	• Facing competition from MNCs and other GMP certified firms. • Low profit margins • Delay in cash realization • High dependency on contracting firms.	• Conduct workshops on modern marketing trends to SMEs by Marketing Consultants • Group formation of cGMP/ WHO GMP firms • Market search	• Interaction with marketing consultants
Quality compliance	• No entrance to international market • Low level margins	• Conduct awareness camps on GMP and linking the identified GMP consultants to SMEs • Training of Chemists / Analysts • Introduction of factory internal linkage programme for system • Video for factory usage	• Interaction with GMP consultants
Finance	• No proper financial planning / management	• Organise interaction meet with CAs/Bankers	• Conduct Orientation camps for linking Financial consultants to SMEs

Business operation	Problems being faced by firms in the present mode	Suggested Solution	Required BDSPs / interventions
Man power	• Non availability of trained manpower • Attrition rate is high • Non availability of Manpower contractors/ Agencies	• Enhancing of skills to the existing staff • Linking SMEs with training institutes • Create skilled to pharma manufacturing firms	• Facilitating the BDSPs in conducting the skill development training through training institutions
Infrastructure	• In adequate availability of testing labs. • Lack of common Testing laboratory	• Felicitating in establishment of common testing lab locally	
Energy Management	• Poor energy management	• Energy audits for reducing the cost	• Piloting energy audits in 10 SMEs
Pollution & Waste Management	• Non availability of common waste disposing system • Lack of knowledge in waste disposing	• Creation of awareness on waste management	• Conduct an awareness campaign on waste management by involving environment consultants • Facilitating in establishment of common waste management system
Packing	• Low quality packing material availability in local • High price of packing material	• Strengthening BDSPs related to all type of packing materials	• Organizing capacity building programme to the all type of packing material supplying firms
Information & Communication Technology	• Not using advanced software in SMEs in all stages of value chain	• Procuring of software relating to production business	• Conducting work shop on customized software

3.3.5 Pressure Points

During our study, we understand the following are pressure points, which need to be addressed on a short term and long term basis.

No	Area	Pressure points
1	HRD	Shortage of skilled manpower
2	Quality Compliance	Non compliance of the GMP regulations

Conclusions

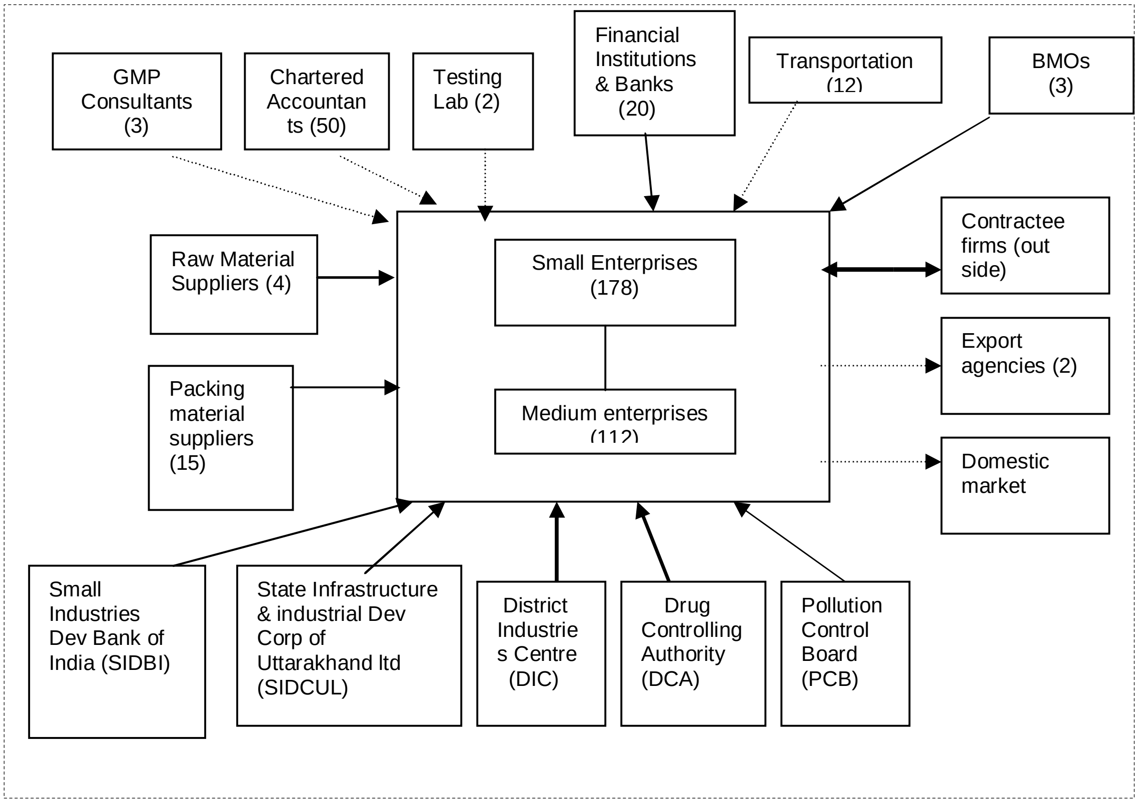
- The local Raw material suppliers/dealers are supplying the inactive materials against the orders, their investment levels are low and they are not in a position to fulfill the requirement of the industry of APIs.
- The firms who are in ethical marketing are getting competition from MNCs since they are not practicing the GMP and it leads to less profit. High dependency on contract firms is in contract manufacturing units for new market channels.
- Cluster firms are having shortage of skilled manpower problem due to inadequate availability of trainers and also the non linkage of SMEs with training institutions,
- Cluster firms are not aware of Energy and environmental systems.
- Most of the firms are not following the CGMP regulations

Chapter – 4
DERIVATION

4.1 Swat Analysis - Dehradun Pharma Cluster

Strengths	Weaknesses
• Experienced and qualified entrepreneurs • Large manufacturing capacities • Availability of Technical institutions • Strong Banking support	• Poor adoption of GMP and regulatory norms • In adequate availability of Raw materials and BDSPs locally • Non- availability of Skilled Manpower • Week linkages between BDS providers and SMEs • Week linkages between industry and institutions • No shared industry vision • Lack of Public testing and research laboratories • No professionals management in so many business operations • Dependence on contract manufacturing • Possibility of high attrition rates
Opportunities	**Threats**
• Exploring international markets • Drugs going off-patent • Opening out of domestic market • Improving industrial infrastructure in the state • Cost reduction initiatives • Stiff competition to drive competitiveness • Fully utilizing banking infrastructure • Central and State level incentives and concessions for new investments	• External competition / import substitution • Regulatory ceilings on product prices • Changing Government Policies

4.2 Cluster Map



Note:

- Arrow with doted line indicates the weak linkage
- Arrows with continuous line indicates the reasonable linkage
- Arrows with continuous thick lines indicates the strong linkage

4.3. Vision of the Cluster

"To position Dehradun Pharmaceutical Cluster in a Global Map as dynamic and competitive cluster by practicing National & Global regulatory norms and to compete with multi-national companies at global level in quality and price".

4.4. Long run & Short-run Objectives

4.4.1 Long-run Objectives:

Following are the long-run objectives which are identified during our interaction:

- To empower at-least 15-20% of the SMEs (i.e. around 50-60 cluster firms) of Dehradun Pharmaceutical Cluster to practice the set National and International regulatory requirements through current Good Manufacturing Practices (cGMP), Systems & Processes
- Facilitating in employment hike of minimum 20% in SMEs
- Facilitate the cluster firms to establish raw material consortia for procuring quality raw materials at a competitive price.
- Facilitate the cluster firms to establish common testing laboratory on PPP mode.
- Facilitating in establishment of common waste management system on PPP mode

4.4.2 Short- run Objectives (1st year)

- Creation of awareness among SMEs on advantages in engaging BDS
- Creating Awareness on cGMP
- Identification of BDS providers from out side of the cluster
- Skill up gradation of the Existing manpower of SMEs
- Capacity building of Ancillary units to act as BDSP

4.5. Suggestive Action plan

The suggestive strategy for the fulfillment of the cluster needs and also development of the cluster as a model cluster as stated in the cluster vision statement. The following key issues with suggestive interventions to be done in the cluster:

S.No.	BDS Area	Suggestive interventions	Required BDSPs	Beneficiaries
1	Raw Material	• Organizing the dealers meet strengthening them in getting financial assistance for enhancing their capacities. • Conducting small SME group meetings/ work shops common procurement • Facilitating establishment of raw material hub	RMS, Business consultants RMS FIs BMOs	SMEs, RMS Banks BMOs
2	Marketing	Conduct workshops on modern marketing trends to SMEs by marketing consultants	GMP consultants Marketing consultants	SMEs SMEs
3	Finance	• Conduct orientation camps to SMEs on financial aspects through financial consultants	Financial consultants tax consultants	SMEs
4	Quality Compliance	• Conduct awareness camps on GMP and linking the identified GMP consultants to SMEs	GMP consultants	SMEs
5	Manpower	• Facilitating the BDSPs in conducting the skill development training through training institutions	Training institutes BMOs	SMEs Staff Un employee SMEs
6	Infrastructure	• Felicitating in establishment of common testing lab.	BMOs SIDCUL DIC FIs	SMEs
7	Energy Management	• Piloting energy audits in 10 SMEs	Energy consultants	SMEs
8	Pollution & Waste Management	• Conduct a awareness campaign on waste management by involving environment consultants • Facilitating in establishment of common waste management system	Environment consultants PCB BMOs FIs SIDCUL DIC	SMEs SMEs
9	Packing	• Organizing capacity building programme to the all type of packing material supplying firms	Packing material suppliers	Packing material suppliers
10	Information & Communication Technology	• Conducting work shop on customized software	Technical consultants	SMEs

Proposed Interventions with Tentative Time lines for Dehradun Pharmaceuticals Cluster

S No	BDS Areas	Suggested Interventions	Tentative Time Line (Quarter wise)									
			1	2	3	4	5	6	7	8	9	10
1	Raw Material	Organizing the dealers meet Strengthening them in getting financial assistance for enhancing their capacities.										
		Conducting small SME group meetings/ work shops common procurement										
		Facilitating establishment of Raw material hub										
2.	Marketing	Conduct workshops on modern marketing trends to SMEs by Marketing Consultants										
3	Finance	• Conduct orientation camps to SMEs on Financial aspects through Financial consultants										
4	Quality compliance	• Conduct Awareness camps on GMP and linking the identified GMP consultants to SMEs										
5	Man power	Facilitating the BDSPs in conducting the Skill Development Training through training institutions										
6	Infrastructure	Felicitating in establishment of common testing lab.										
7	Energy Management	Piloting energy audits in 10 SMEs										
8	Pollution & waste management	Conduct a Awareness campaign on waste management by involving environment consultants										
		Facilitating in establishment of common waste management system										
9	Packing	Organizing Capacity building programme to the all type of Packing material supplying firms										
10	IC Technology	Conducting work shop on customized software										

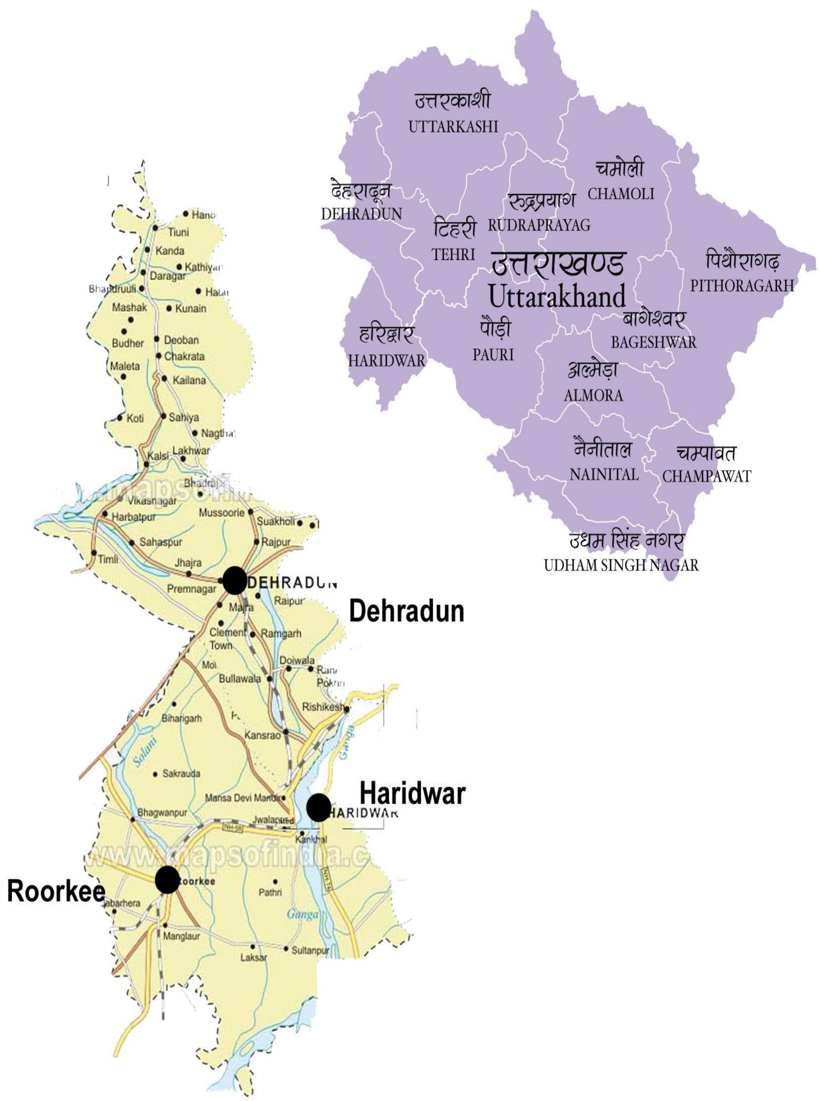
Annexure – I

Location of the cluster

Uttarakhand is the 27th state of the Republic of India and was carved out of Uttar Pradesh on 9th Nov 2000. The State has two Divisions (viz; Garhwal and Kumaun), with 13 Districts, The state is bordering Himachal Pradesh in the north-west and Uttar Pradesh in the South and has international borders with Nepal and China. The state has a population of 8.5 million with average density of 159 persons per sq km.

The Pharmaceutical cluster of Dehradun has spread in two districts i.e. Dehradun and Haridwar (Haridwar and Roorkee town) in a radius of 60-65 km.

Location Map



Annexure – II

List of Respondents Small & Medium Enterprises

Sl.No	Contact Person	Name & Address of the firm	Contact No
1	Mr. Sanjay Sikaria Director	M/s. Suncare Formulations Pvt Ltd, E-20, UPSIDC Ind Area, Selaqui,Dehradun, Uttarakhand	9917221112
2	Mr. N.L. Reddy Managing Director	M/s. Concord Drugs Limited Khasara No. 165/3, Pargana, Bhagavanpur, Roorkee, Haridwar(Dt), Uttarakhand	9917000755
3	Mr. Deepak Kukreja Managing Director	M/s. Adroit pharmaceuticals Pvt Ltd 106 Mohabbewala Industrial Estate, Dehradun, Uttarakhand.	9319794700
4	Mr. Sriramachandran B. Iyer, Managing Partner	M/s. Household pharmaceuticals Ltd, plot No. 37, Pharmacity, selaqui, Dehradun, Uttarakhand	9897162227
5	Mr. Ankur Agarwal, Director	M/s. Coronet Labs Pvt Ltd, Puhana, Iqbalpur Road, Roorkee, Haridwar District, Uttarakhand.	9917033000
6	Mr. Ashok Kumar windlass. Managing Director	M/s. Windlass Biotech Ltd 40/1, SBI Road, Mohabbewala Industrial Estate, Dehradun.	9837028749
7	Mr.K. Ramanadhan Sr. Manager, Accnts.	M/s. Elder Pharmaceuticals Ltd, C-11/1, Industrial Area, Selaqui Dehradun, Uttarakhand.	9897639620
8	Mr. Vinod Khalani Managing Director	M/s. Cris Pharma India Ltd, E-11, UPSIDC Industrial; Area, Selaqui, Dehradun, Uttarakhand	0135-6451531
9	Mr. Pramod Khalani Managing director	M/s. Oasis Laboratories Pvt Ltd E-18, UPSIDC Industrial; Area, Selaqui, Dehradun, Uttarakhand	987612773
10	Mr. Sandeep Ahuja Managing Partner	M/s. Regent Health Care Ltd, E-7 / 2, UPSIDC Industrial; Area, Selaqui, Dehradun, Uttarakhand	9219504102
11	Mr. S. Ravi Kumar Production Manager	M/s. Cu-V-Kar Genetic Medicines Pvt Ltd, G-63, UPSIDC Industrial; Area, Selaqui, Dehradun, Uttarakhand	9410312992
12	Mr. B. Balachandran Managing Director	M/s. OCTIS research Laboratories Pvt Ltd, G-86, UPSIDC Industrial; Area, Selaqui, Dehradun, Uttarakhand	9837066345
13	Mr. Jeetendar General Manager	M/s. East African (India) Overseas , Plot No. 1, Pharma city, Selaqui, Dehradun	9927900920
14	Mr. Bhupendra Mehta General Manager	M/s. Coral Laboratories Ltd, Plot No. 27 & 28, Pharma city,	0135-2699121

		Selaqui, Dehradun, Uttarakhand	
15	Mr. Arun Vasistha Managing Partner	M/s. PENTA Biotech Plot No. 92&93, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	9810026363
16	Mr. Ravi Srivastava Sr. Manager, Accnts	M/s. Psychotropic India Ltd Plot No. 46 – 49, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	9897045999
17	Mr. Rajendar Production Manager	M/s. Jivanta Laboratories Pvt Ltd, Plot No. 52, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	9997032424
18	Mr. Mr. Jatin Gandhi Managing Partner	M/s. Talent Health Care Plot No 66 & 67, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	9359903603
19	Dr. D.V. Noteyar Head, Accnts Dept	M/s. Eastern Health Care, Plot No. 7, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	01334 - 239501
20	Mr. Harish Tiwari Director	M/s. Cotec Health Care Pvt Ltd, Krishanpur, Roorkee, Haridwar.	9756973838
21	Mr. I. Madhusudhana Rao, Director	M/s. Vance & Health Pharmaceuticals, Krondi, Roorkee Haridwar District, Uttarakhand	9927062636
22	Mr.G. Suresh Babu director	M/s. Pulse Pharma, Krondi, Roorkee Haridwar District, Uttarakhand	9758166610
23	Mr. Amit Bajaj Director	M/s. Bajaj Pharmaceuticals, Khasara No :256, Sisona, Bhagwanpur, Roorkee, Haridwar Dist, uttarakhand.	987030102
24	Mr. Umesh Sanghi Managing Director	M/s UNI CURE India Pvt Ltd, khasar No 251, Sisona, Bhagwanpur, Roorkee, Haridwar Dist, uttarakhand.	9927162155
25	Mr. Y.N. Shah Managing Director	M/s. Yash Pharma Laboratories Pvt Ltd,. Pargana, Bhagavanpur, Roorkee, Haridwar(Dt), Uttarakhand	9897134999
26	Mr. Sandeep jain Managing Director	M/s. Akums Drugs & Pharma Ltd Plot No. 19 -21, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	01334 – 27011315
27	Mr. R.C. Jain Director	M/s. Pharmasynth Formulations Ltd, Plot No. 19-22, Sector- 6B, IIE, SIDCUL,Haridwar,Uttarakhand	9319777674
28	Mr. Sumeet Agarwal Managing Director	M/s. Agarwal Drugs Pvt Limited Plot No. 24, Sector- 6B, IIE, SIDCUL, Haridwar, Uttarakhand	9319392648
29	Mr. Anurag Sharma Head, Plant Operations	M/s. Medicamen Organics Ltd, Plot No. 60, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	9997770881
30	Mr. A.P. Dubey General Manager	M/s. Rivpra Formulations Pvt Ltd. Plot No. 8, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	9760309306

31	Dr. Ahuja Director	M/s. Arogya formulations Pvt Ltd, Plot No. 76, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	9897054150
32	Mr. RAhul Khaitan Director	M/s. Apple Formulations Pvt. Ltd Plot No.208, Krishanpur, Roorkee, Haridwar.	9719600002
33	Mr. V. Vijay Kumar General Manager	M/s. Suraksha Pharma Pvt Ltd, Kasara No. 410, Krondi, Roorkee Haridwar District, Uttarakhand	9759003537
34	Mr. Vinay Gupta Director	M/s. Sarvear Pharmaceuticals, C-7, SARA Industrial Estate, Rampur, Selaqui, Dehradun	9411393973
35	Mr. Ashok Monga Managing Director	M/s. Rhydburg pharmaceuticals Limited, C-2&3, SARA Industrial Estate,Rampur, Selaqui, Dehradun	9927048999
36	Dr. Amit K. Srivatsava, Project head	M/s. Planet Herbs Life Sciences Pvt Ltd, B-4, SARA Industrial Estate,Rampur, Selaqui, Dehradun	9927070175
37	Mr. N. Srinivas Director	M/s. Natco Pharma Ltd, Plot No. 19, Pharmacity Selaqui, Dehradun, Uttarakhand	9897037927
38	Mr. K. Devasenapathi Production manager	M/s. Premier Nutraceuticals Pvt Ltd, Plot No. 32, Pharmacity Selaqui, Dehradun, Uttarakhand	9219614324
39	Mr. Pritpal Singh Chawala Managing Partner	M/s. Defohills Laboratories Pvt Ltd, F-109, UPSIDC Industrial; Area, Selaqui, Dehradun, Uttarakhand	0135 - 2761429
40	Mr. P Koteswara Rao Director	M/s. Vanguard Pharmaceuticals E- 7/5, UPSIDC Industrial; Area, Selaqui, Dehradun, Uttarakhand	9848041692

BMOs

Sl.No	Contact Person	Name & Address of the BMO	Contact No
1	Mr. Pramod Khalani President	Drug Manufacturers Association – Dehradun E-18, UPSIDC Industrial; Area, Selaqui, Dehradun, Uttarakhand	0135- 2698900 987612773
2	Mr. Sandeep jain President	Association of Pharma Manufacturers - Haridwar Plot No. 19 -21, Sector- 6A, IIE, SIDCUL, Haridwar, Uttarakhand	01334 – 239220, 239222
3	Mr. N.L. Reddy President	Pharma Manufacturers Association – Roorkee, Khasara No. 165/3, Pargana, Bhagavanpur, Roorkee, Haridwar(Dt), Uttarakhand	01332- 281351 9917000755

Private BDS providers & supporting Institutions

Sl.No	Contact Person	Name & Address of the BDS Provider / Institutions	Type of BDS	Contact No
1	Dr. Sumant Baukhandi Director	Pharma Institute of GMPs,No. 7, Phase I, Vasanth Vihar, Dehradun, Uttarakhand	GMP Consultant	9997010901
2	Mr. Ashish K. Gupta Charted Accnt	Ashish Kumar Gupta & Associates, Raj Plaza complex, 1st floor, 75, Rajpur road, Dehradun	Financial & Tax Consultant	9358111116
3	Mr. jagadish Shah Director	Peacon Pharma Consultancy, A-4, High Tension line road, Subrapura, Baroda	Pharma Consultant	9376217595
4	Dr. Ashwini Kumar Managing Trustee	Roorkee college of Pharmacy , 09 mile stone, Krishanpur, Roorkee, Haridwar Dt	Pharma College	9411602592
5	Mr. N. Srinivasa Reddy Managing Partner	Roorkee Research and Analytical Laboratories Pvt Ltd, 6/10, Haridwar road, Roorkee	Research and Analytical Laboratory	9759003527
6	Mr. Nithin Agarwal Unit Incharge	M/s. Alpha Pharma D-12, Devabhoomi Industrial Estate, Puhana, Iqbalpur road, Roorkee, Haridwar Dt	Mfg of Pet Bottles	9897073947
7	Dr. A.S, Chowdary Director	GRD institute of management & Technology, Rajpur Road, Near saibaba mandir, Dehradun	Institute of Pharmacy	0135 - 2734327
8	Mr. N.S. Gupta Manager	M/s. Isha Packaging G-40-41, UPSIDC Industrial; Area, Selaqui, Dehradun,	Mfg of Corrugated Boxes mfg	0135-6541545
9	Mr. Bhupesh Mishra Manager	M/s. Siddhi Foils G-48 UPSIDC Industrial; Area, Selaqui, Dehradun,	Mfg of Alluminium Foils	9411548814
10	Mr. SriPraksh parekh Propritor	M/s. Quick Forma Quick House, Pragathi Vihar, Selaqui	Raw material Dealer	9897177883
11	Mr. Hemal Mehtha Director	M/s. Unnathi Pharmaceutical Pvt ltd Vasanth Vihar, Maqpool puri, Roorkee	Raw material Dealer	0332-260051 09392405353

Public BDS providers & supporting Institutions

Sl.No	Contact Person	Name & Address of the Department	Type of BDS	Contact No
1	Mrs. Kausalya Bandhu General Manager	District Industries Centre Dehradun	Industrial Promotion	9411110603
2	Mr. DD Upreti Director	Directorate of Drug Control	Drug Controlling & Licencing	9837391534
3	Mr. G.S. Rana Lead district Manager	Lead Bank office, PNB, Opp: Vidhana sabha, Dehradun	Coordination with Banks	0135-2665528
4	Mr.A.R. Gairala Dy. General Manager	SIDCUL 2, New Cantt road, Dehradun	Industrial Infrastructure Development	0135-2708100
5	Dr. Puja Bharadwaj Director	Directrate of Ayurveda and Unani, 3/23, Sastry Nagar, Dehradun	Development of Ayurvedic Industries	0135 - 2665321

Annexure - III

Diagnostic Study Questionnaire – Pharmaceutical sub sector (for SME units)

PROJECT: SIDBI-BDS for MSMEs	**Date of Visit:**
Name of the CEO / MD / Partner / Proprietor	
Respondent Name	
Position	
Telephone No / Cell No	
Interviewer's Name	
Length of Interview	
Membership (Please name the Industry Association / Cluster / Export Promotion Council , Chamber Of Commerce / others of which your co is a member)	
Type of Industry: Bulk Drug Mfg ☐ Formulation ☐ Others:____________	

1. Enterprise Detail:

A. Name & Address (Office)

	Phone		Mobile	
	Fax		Email	

B. Unit Address

	Phone		Mobile	
	Fax		Email	

C. Legal Status (Please tick)

a) Proprietorship ☐ b) Partnership ☐ c) Co-operative ☐ d) Private Ltd. ☐

e) Public Ltd. ☐ Any other (Please specify) ☐

D. Type of Enterprise: Micro / Small / Medium/ Large:

E. Quality Certification(s):

____

____

____

___

____

_

F. Nature of the Unit: (Please tick: a) Registered ☐ b) Unregistered ☐

G. Premises : a) Own b) Rented c) Floor area: ___________ Sq. Feet

H. Year of establishment : ________________________

2. Unit information at glance

	2008-09		**2007-08**		**2006-07**	
Turnover						
Profit before tax						
Wages & Salary						
Total investment in Plant & Machinery						
Number of Employees	Permanent	Contractual	Permanent	Contractual	Permanent	Contractual
Existing Credit Facility	Type	Amount (Rs in lakh)	Bank & Branch			Name of CA / Financial consultant
	Fund based					
	Non Fund Based					

3. Employment:

Type	Category				Average Salary / Wages
	Men	Women	SC/ST/ Minority	General	
Managerial					
Supervisory					

Semi skilled Workers					
Contractual laborers					

4. Products being manufactured:

……

……

5. Product wise Manufacturing Process with value chain details (add separate sheets)

6. Marketing

Category / Type	Percentage of sales
Own Distribution network	
Supply to large Company	
Govt Institutions	
Direct Exports	
Indirect Export	
Others (Please specify)	

7. Issues effecting growth of the Industry / Unit

Area	**Issues effecting the unit's growth**	**Consultant(s) / service provider(s) being presently being engaged**
Quality compliances		
Technology Improvement / Up gradation		
Quality Testing Facilities		

General Management		
Pollution & Waste Management		
HRD (Manpower Training)		
Marketing (Domestic / Export)		
Raw material (Procurement / Sourcing)		
Packaging & Branding		

Energy Management		
Safety Management		
CRAMS (Contract Research and Manufacturing Services)		
Information & communication Technology (ICT)		
Infrastructure development		
Industry and Institutional linkage		

Advocacy related issues		
Other(s)		

8. Other Information

a	What are the issues in the cluster received attention /focus in the last 5 years?	
b	What is currently driving or influencing the Growth/performance of the Cluster?	
c	What needs to be done in the cluster to improve the Productivity & Profitability?	
d	What are the barriers keeping you from upgrading to the next level?	

e	What is the bargaining power of your suppliers?	
f	What is the bargaining power of your customers?	
g	What are the barriers to entry in to your sector?	
h	What is the nature of the competition and rivalry in this sector?	
i	What are the substitutes for your product or Industry?	
j	Major diversification into new products or markets in the past 3 years	
k	Other Businesses Owned or Partly-owned (i.e., In manufacturing, or other sectors; specify sub-sectors as far as possible)	

I	Solutions you would like to suggest for overall growth of the sector?	

9. Interviewer's Comments:

Signature of the Interviewer

Annexure - IV

Diagnostic Study Questionnaire – Pharmaceutical sub sector (for BDS Providers)

PROJECT: SIDBI-BDS for MSMEs	**DATE:**
Name of the CEO / MD / Partner / Proprietor	
Enterprise Name	
Respondent Name	
Position	
Telephone No / Cell No	
Interviewer's Name	
Length of Interview	
Sectoral and Geographical Coverage:	
Membership (Please name the Industry Association / Export Promotion Council / Chamber Of Commerce / others of which your organization is a member)	

1. Enterprise Details:

A. Name & Address (Office)

	Phone		Mobile	
	Fax		Email	

B. Unit Address

	Phone		Mobile	
	Fax		Email	

C. Legal Status (Please tick)

a) Proprietorship ☐ b) Partnership ☐ c) Private Ltd. ☐ d) Public Ltd. ☐

Any other (Please specify) ☐

D. Nature of the Unit: (Please tick): a) Registered ☐ b) Unregistered ☐

E. Premises : a) Own b) Rented c) Floor area: ___________ Sq. Feet

F. Year of establishment : ________________________

2. Service Provider's information at glance

(Amount at a glance)

	2009-08		**2008-07**		**2007-06**	
Turnover						
Profit before tax						
Wages & Salary						
Total investment in Plant & Machinery						
Number of Employees	Permanent	Contractual	Permanent	Contractual	Permanent	Contractual

Existing Credit Facility	Type	Amount (Rs in lakh)	Bank & Branch	Name of CA / Financial consultant
	Fund based			
	Non Fund Based			

3. Employment:

Designation	Category			Average Salary / Wages
	Men	Women	Total	

Interviewer Signature

4. BDS Provided to Pharmaceutical Industry

S.No	Area of Expertise	Services provided for Number of firms			Approximate Value (in Lakhs)		
		2006-07	2007-08	2008-09	2006-07	2007-08	2008-09

(BDS Provider's credentials and List of firms to be obtained separately)

5. Other Information

a	What are the critical issues you visualize in the cluster?	

b	What is currently driving or influencing the Growth / performance of the Cluster?	
c	What needs to be done in the cluster to improve the Productivity & Profitability of the cluster firms?	
d	What is the bargaining power of Pharmaceutical industry clients?	
e	What is the nature of the competition and rivalry in this sector?	
f	What are the barriers obstructing the sector from upgrading to the next level?	
g	Major diversification into new products or markets in the past 3 years	

h	Solutions you would like to suggest for overall growth of the sector?	

6. Interviewer's Comments:

Signature of the Interviewer

Annexure - V

Diagnostic Study Questionnaire – Pharmaceutical sub sector (for BMOs)

PROJECT: SIDBI-BDS for MSMEs	**DATE:**				
Name of the CEO / MD / ED /President					
Name of the BMOs / Association					
Respondent Name					
Position					
Telephone No / Cell No					
Interviewer's Name					
Length of Interview					
Membership (Please name the Industry Association / Export Promotion Council , Chamber Of Commerce / others of which your BMO is a member)					
No of MSME Members	Micro	Small	Medium	Large	Total
No. of Other Members					
No. of Paid Staff					
Approximate Annual Revenues					
No. of Unpaid but Active Officials					
Approximate Total Assets					

1. A. Name & Address (office)

	Phone		Mobile	
	Fax		Email	

B. Legal Status (Please tick)

a) Co-operative ☐ b) Private Ltd. ☐ c) Public Ltd. ☐

Any other (Please specify) ☐

C. Premises : a) Own b) Rented c) Floor area: ____________ Sq. Feet

D. Facilities available:

____
____
____
___

E. Year of establishment : ________________________

2. Issues effecting growth of the Pharmaceutical Industry

Area	Issues	Consultant(s) / service provider(s) being presently being engaged
Quality compliances		
Technology Improvement / Up gradation		
Quality Testing Facilities		
Financial Services		
General Management		

Pollution & Waste Management		
HRD (Manpower Training)		
Marketing (Domestic / Export)		
Raw material (Procurement / Sourcing)		
Packaging & Branding		
Energy Management		

Safety Management		
CRAMS (Contract Research and Manufacturing Services)		
Information & communication Technology (ICT)		
Infrastructure development		
Industry and Institutional linkage		
Advocacy related issues		

Other(s)		

3. Other Information

a	What are the issues in the cluster received attention / focus in the last 5 years?	
b	What is currently driving or influencing the Growth/performance of the Cluster?	
c	What needs to be done in the cluster to improve the Productivity & Profitability of the industry?	
d	What is the bargaining power of your suppliers?	
e	What is the bargaining	

	power of your customers?	
f	What are the barriers to entry in to Pharmaceutical sector?	
g	What is the nature of the competition and rivalry in this sector?	
h	Solutions you would like to suggest for overall growth of the sector?	

4. Interviewer's Comments:

Signature of the Interviewer