





Final Report - Volume I

Study on Micro & Household Enterprises in NCR
October 2015

National Capital Region Planning Board





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Acronyms

AHVY	Baba Saheb Ambedkar Hastshilp Vikas Yojana
CFC	Common Facilities Centre
DC MSME	Development Commissioner, Micro, Small and Medium Enterprises
DIC	District Industries Centre
DST	Department of Science and Technology
EM I	Entrepreneur's Memorandum I
EM II	Entrepreneur's Memorandum II
GDP	Gross Domestic Product
IIE	Indian Institute of Entrepreneurship
IPR	Intellectual Property Rights
KVIC	Khadi and Village Industries Commission
KVIB	Khadi and Village Industries Commission
Mo MSME	Ministry of Micro, Small and Medium Enterprises
MSME	Micro, Small and Medium Enterprises
MSMED Act	Micro, Small and Medium Enterprises Development Act
MSE- CDP	Micro and Small Enterprises – Cluster Development Programme
NCRPB	National Capital Region Planning Board
NCR	National Capital Region
NCT	National Capital Territory
NIC	National Industrial Classification
NIESBUD	National Institute for Entrepreneurship & Small Business Development
NI MSME	National Institute for Micro, Small and Medium Enterprises
NABARD	National Bank for Agriculture and Rural Development
NSIC	National Small Industries Corporation
PPP	Public Private Partnership
PMEGP	Prime Minister's Employment Generation Programme
QMS	Quality Management Standards
QTT	Quality technology Tools
SSI	Small Scale Industries
SFURTI	Scheme of Fund for Regeneration of Traditional Industries
SICDP	Small Industries Cluster development Programme
SGSY	Swarnajayanti Gram Swarojgar Yojana
UNIDO	United Nations Industrial Development Organisation

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We acknowledge gratitude for the active participation and constant support of NCRPB during the study, enabling the widespread consultations with the State & National Institutions like Ministry of Micro, Small and Medium Enterprises, Micro, Small & Medium Enterprises Development Institute, Town & Country Planning Department and Department of Industries of NCR participating States (NCT-Delhi, Haryana, Uttar Pradesh and Rajasthan), their respective District Industries Centres and Directorate of Industries, Delhi.

We express our sincere thanks to the owners and workers of the Micro & Household industries and all other stakeholders who provided their inputs for the study. The output, in the form of report, is the result of the widespread consultation and participation of various stakeholders with Mott MacDonald team and we are grateful to each one of them.

We are extremely confident that this Report would go a long way in helping the NCR Participating States in their effort for the improvement and development of Micro & Household sector in NCR. The report would also be helpful to academicians and researchers in understanding the various issues related to Micro & Household Enterprises in NCR.

Executive Summary

Need for Study

The Micro, Small and Medium Enterprises (MSME) sector contributes significantly to the manufacturing output, employment and exports of the country. It is estimated that in terms of value, the sector accounts for about 45 per cent of the manufacturing output and 40 per cent of the total exports of the country. Out of the total working enterprises, Micro Enterprises constitutes around 95.05% as compared to small enterprises (4.74%) and medium enterprises (0.21%). Also, of the 261 lakh number of MSMEs, 52% is present in the rural areas. These micro enterprises consist of two typologies, manufacturing and service enterprises.

In NCR, the larger urban centres such as Delhi, Gurgaon, Faridabad, NOIDA etc. are emerging as hubs of industry and service sector while the smaller towns and villages do not have any means of in-situ employment generation. In order to create adequate economic opportunities and employment generation the need for development of micro & household enterprises of different types in these rural areas is highlighted. The micro and households industry sector, not only has a high potential for employment, capital investment in this sector is also low and it has a high ratio of value addition and high potential for export and foreign exchange earnings for the country. It is in this regard that the National Capital Region Planning Board, which has been constituted for the planned development of NCR, has instituted this study and had awarded to Mott MacDonald through a competitive bidding process.

MSME Act 2006

The Micro, Small and Medium Enterprises Development (MSMED) Act was notified in 2006 to address policy issues affecting MSMEs as well as the coverage and investment ceiling of the sector. This Ministry now designs policies, programmes, projects and schemes and monitors their implementation with a view to assist MSMEs and help them scale up. Another major highlight of the MSMED Act is that the MSM enterprises in the service sector are also covered under the Act with a separate investment limit for plant and machinery prescribed in it. The MSMED Act was framed with the following objects:

- To facilitate the promotion and development of micro, small and medium scale enterprises (MSM enterprises);
- To enhance the competitiveness of MSM enterprises;
- To concentrate on the related matters of MSM enterprises;
- To extend the scope of benefits from SSI undertaking and ancillary industries to MSM enterprises.

The Study Objective & Study Area

The objective of the study was to draw up a plan of action for the development of Micro & Household enterprises in the National Capital Region (NCR) to ensure balanced regional development. The study was undertaken in 2010-11 and had covered the then 15 districts of NCR and the National Capital Territory of Delhi which includes:

- National Capital Territory of Delhi (Walled City, North, South, East and West)
- Haryana sub region (Panipat, Sonipat, Rohtak, Jhajjar, Gurgaon, Faridabad, Rewari, Mewat, Palwal)

- Uttar Pradesh sub region (Baghpat, Meerut, Ghaziabad, Bulandshahr, GautamBudh Nagar)
- Rajasthan (Alwar)

Study Coverage

During the inception stage it was decided that the **study would be limited to micro and household manufacturing enterprises (those with fixed investment in plant and machinery up to 25 Lakhs)** and will not delve into the service sector.

As per the MSME Act 2006, all enterprises engaged in the activities of manufacturing or in providing/ rendering of services, that have obtained Entrepreneurs Memorandum (EM-II) from District Industries Centres as on 31.03.2010 may be referred as registered enterprises with EM-II. The enterprises that have been registered with the DICs after 2006 and obtained EM II have only be considered in the study to derive at the inventory of registered enterprises.

All enterprises engaged in the activities of manufacturing or in providing/rendering of services, not registered permanently or obtained Entrepreneurs Memorandum (EM) with District Industries Centres as on 31.03.2010 are referred as unregistered enterprises. A sample of 2500 unregistered enterprises, i.e., those which have not obtained EM II, that form a part of a cluster have been considered for the purpose of primary survey.

Approach and Methodology

Our Approach and Methodology has been finalised during various stages of the study with NCRPB and has been briefly described below.

- Task 0: Getting a sub sector understanding on the following key accounts-During this stage the Consultants reviewed various data/documents available in the public domain and came out with the list of Government/Institutional sources from where the listing of micro enterprises and clusters could be sought.
- Task 1: Obtaining quantitative information of ALL registered micro enterprises and formulating a comprehensive district wise cluster list. During this stage the Consultants visited the offices of Development Commissioner(MSME), Development Commissioner (Handlooms), Development Commissioner (Handlooms), National Jute Board, Textile Commissioner, Coir Board, Central Silk Board, NI-MSME, MSME Foundation, UNIDO at the National and Regional levels as well as the DIC and KVIBs at the District levels. Information was sought on the number, employment, investments and clusters of micro enterprises within each district.
- Task 2: Survey of a SAMPLE of 2500 unregistered micro enterprises, in this stage, the Consultants have compiled a list of 205 clusters across NCR, from the information collected from various national, state and district level authorities as well as private organsiations that have taken initiative in cluster development. From these clusters 49 clusters were identified and sampled for primary survey following proportionate sampling technique. The primary survey was intended to understand the issues and constraints of the enterprises in terms of manpower, raw material, technology, design & development, marketing and physical infrastructure. During this stage the consultants also met various stakeholders for each surveyed cluster.

 Task 3: Preparation of action plans and required interventions Ultimately the study is intended to propose cluster level interventions required for development of micro enterprises in NCR

Snapshot of the Study

Based on primary survey and stakeholder constructions during the study, analysis has been carried out. The report elaborates this analysis under various heads as given below:

- Enterprise Profile: Based on quick result of MSME census 2006-07 enterprise profile for NCR districts and states was prepared in the year 2010-11. This profile has been further updated after final data of MSME census 2006-07 has been published in 2015.
- Inventory: Based on analysis of secondary data and primary survey, the approximate number of micro enterprises within each district, the employment and turnover have been estimated. The inventory at three levels (state wise, sector wise and district wise has been elaborated in this Volume I)
- Cluster Issues/Constraints: A cluster wise report of feedback received from enterprises on various issues such as manpower, technology, design & development, marketing etc. has been documented. Volume II has detailed description of each cluster surveyed during the primary survey.
- **SWOT Analysis of Clusters:** From stakeholder analysis and primary survey, we have analysed the Strengths, Weaknesses, Opportunities and Threats of each cluster. We have also attempted to highlight the potential clusters based on this analysis. This has been presented along with the cluster reports in Volume II.
- Cluster Action Plan: On the basis of issues, Cluster Wise Action Plan for State Interventions has been prepared. Volume II also contains the Cluster Action Plans.
- Identification of Infrastructure Projects: On the basis of issues/constraints at Cluster level, certain infrastructure projects that can be taken up with NCRPB assistance has been provided. Such projects have been identified and can be referred to in this Volume I.
- Constraints in Spatial Spread: The Consultants have identified the constraints in spatial spread of the clusters on the basis of comparative advantages and disadvantages of the clusters within sectors. Spatial analysis has been included in Volume I.
- **Recommendations:** The recommendations have been made based on various analyses. While the summary of findings of the complete study as well as recommendations are being presented in Volume I, the detailed cluster reports along with respective cluster action plans are presented in Volume II.
- **Economic Benefits:** Based on actions taken and the probable impact on income and employment, the economic benefits have been estimated. These calculations have been presented in Volume I of the report.

The salient findings from the analysis has been summarised in the sections given below:

Salient Findings

This section summarises the main findings of the extensive secondary research and primary survey of 2,500 micro manufacturing enterprises in National Capital Region. The summary of findings of the complete study and recommendations has been presented in Volume I; the detailed cluster reports along with respective cluster action plans have been presented in Volume II.

Profile of Industries

The following section gives a summary of the registered enterprises in NCR as a whole and across the districts of the participating states. Wherever data was available from MSME census for the registered MSME they have been used, 80% of these units have been considered as micro enterprises in line with our discussions with various GMs of the DICs.

National Capital Region

The **NCR** region has approximately 35,881 micro manufacturing enterprises registered after the MSME Act 2006. This is based on the information received from various DICs, the 4th All-India census of MSME and analysed by Mott MacDonald (refer Table E.1). These enterprises are spatially spread across 15 districts (Bulandshahr, Baghpat, Gautambudh Nagar, Meerut, Ghaziabad of Uttar Pradesh sub region; Mewat, Palwal, Faridabad, Rewari, Rohtak, Panipat, Sonipat, Jhajjar and Gurgaon of Haryana sub region; Alwar district of Rajasthan) and the NCT of Delhi. From Table E1, it is clear that district Faridabad has the maximum turnover of INR 400 Crores and also generates maximum employment (48,000).

Closely followed is Gurgaon (INR 370 Crores); and Gautambudh Nagar (INR 200 Crores) in terms of turnover. In terms of employment, Panipat generates 33000 and Gautambudh Nagar generates about 30.000.

Table E:1: Number of Micro Enterprises – NCR

SI. No.	District	Total Micro Manufacturing Enterprises	Annual Turnover (in ₹ Crores) (appox.)	Approximate Employment (in Nos.) (appox.)		
1	Bulandshahr	2777	55	12000		
2	Baghpat	985	43	4500		
3	Gautambudh Nagar	2760	200	30000		
4	Meerut	2432	150	18000		
5	Ghaziabad including Hapur	6641	143	17000		
6	Mewat	1023	68	5300		
7	Palwal	160	4	400		
8	Faridabad	3879	400	48000		
9	Rewari	875	17	2700		
10	Rohtak	859	67	6400		
11	Panipat	2660	175	33000		
12	Sonipat	2228	111	13000		
13	Jhajjar	775	91	12600		
14	Gurgaon	2329	370	14000		
15	Alwar	2295	52	7600		
16	Delhi	3203	-	-		
19	TOTAL	35881				
Source: DIC, 4 th MSME Census 2006-07 and Mott MacDonald Analysis						

The data indicates that the districts where manufacture of Auto Components and Readymade Apparels (especially for export purposes) is prominent, they have a higher turnover. The turnover or employment generation for Delhi has not been calculated as the figures are not available with DSIIDC.

It is understood from the analysis of the cluster compendium that the largest numbers of clusters in the NCR have been set up for textiles followed by furniture, wood & wood products, other non-metallic products, fabricated metal products and leather.

From the cluster visits (49 sample clusters) and in discussion with various stakeholders, it has been derived that a major thrust is required for the development of the Food Processing Sector, manufacture of Plastic products and packaging clusters across NCR. While food processing clusters have not been identified in NCR, the other two sectors have been found to be concentrated in Delhi and Uttar Pradesh sub region. The market for these products has been growing in the recent times.

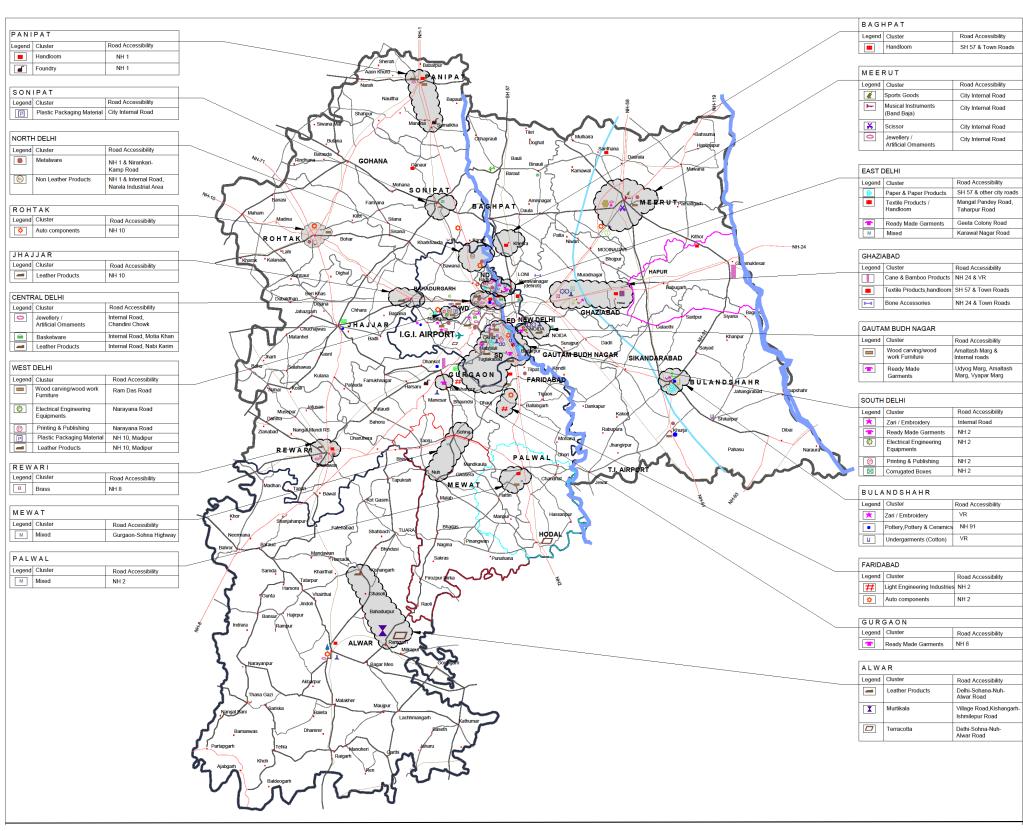
It could be found that continued efforts are required in the Handloom, Readymade apparel, Leather Products, Paper Products and Engineering clusters as the demand for these in national and international markets are ever increasing.

Uttar Pradesh

In Uttar Pradesh, there are in all more than 24 Lakh MSME enterprises, out of which about 1,87,742 units are registered enterprises (reference year 2006-07). Approximately 15,595 registered enterprises form a part of the NCR jurisdiction across districts of Bulandshahr, Baghpat, Gautambudhnagar, Meerut and Ghaziabad. The activities that are prominent include food production, cotton textiles, hosiery & garments production, basic metals, machinery parts and manufacture of other miscellaneous products. From the five districts of Uttar Pradesh that fall in NCR, 12 clusters have been surveyed. The prominent findings from these clusters are as follows:

- All clusters in Uttar Pradesh face a shortage of power supply. The areas which have been classified as census towns are still getting supply as per the norms for villages. Due to this issue of shortage of power supply, a number of these enterprises are unable to upgrade their technology thus producing material lower in quality. Also the smaller household enterprises are functioning under inhuman conditions.
- The roads inter-connecting the districts with each other and Delhi are in a poor condition. This leads to damage of various finished goods during transportation to the major markets and higher overhead costs.
- Also major industrial areas with better infrastructure faciltiies and technological institutes are located at major urban areas like NOIDA and Ghaziabad. Not all the enterprises are aware of or are able to take benefits of these.

Figure E.1: Map showing Clusters in NCR (as chosen for sampling)



Source: Study Sample. The study was undertaken during 2010-11 when Hapur was a part of Ghaziabad district hence, the report has provided data for district Ghaziabad including Hapur

Haryana

Haryana has a total of 5,19,150 MSME enterprises out of which only about 33,150 enterprises have obtained registration. About 14,788 of these fall in NCR jurisdiction¹, i.e., spread across the districts of Gurgaon, Jhajjar, Sonipat, Panipat, Rohtak, Rewari, Faridabad, Palwal and Mewat. From discussions with various stakeholders it was found that the micro enterprises sector is not significantly developed in Haryana sub region because the policies of Haryana Government was more favourable to small and medium scale enterprises than micro enterprises. The primary survey in clusters in Haryana sub region has brought out the following observations:

- Efforts need to be enhanced in newly formed districts of Palwal and Mewat where there is potential for development thereby leading to substantial increase in employment.
- The state of Haryana tends to support the growth of medium and small scale enterprises more than the micro enterprises. This is evident from the fact that the nodal authority of the district; i.e., the DIC; is unaware of the micro manufacturing clusters present within their districts.
- As a consequence, SHG formation is also observed to be negligible in Haryana as compared to Uttar Pradesh sub region and Rajasthan sub region. This restraints the micro enterprises from availing a number of schemes where formation of an SHG is a must.

Rajasthan sub region

There are in all 9,68,885 MSME manufacturing enterprises in Rajasthan sub region out of which about 54,885 are registered. Out of this, about 2,295 micro manufacturing enterprises fall under the NCR purview. The number here is considerably lesser as only Alwar district forms a part of NCR jurisdiction.

- In Alwar, it was observed during the primary survey and stakeholder consultation that though the district is prospering through the various cluster dvelopment initiatives, it has a high potential for further development.
- Power supply shortage is a major issue observed in the clusters of Alwar which hinders further growth of the micro industries here.

Delhi

Delhi has a total of 1,78,754 MSME enterprises. However as per the 4th All India census for MSME 2006-07 only about 3,754 enterprises have obtained registration. However, there are more than 18 clusters in Delhi which had at least 40 enterprises in each of it. The wool, silk and handmade textile manufacturing industries and the rubber and plastic manufacturing industries are the most prominent industry type found in Delhi followed by hosiery and garments sector. Metal products and electrical machinery and parts manufacturing units are also commonly found in the NCT of Delhi. The following observations were recorded during the survey of various clusters across the NCT of Delhi;

In Delhi, to obtain registration the enterprises have to get a No Objection Certificate from the Pollution Control Board and also need to have a license from the concerned Municipal Authority. Thus, the enterprises prefer not to obtain registration. In other districts it was

¹ Source: Data from MCME census 2006-07

found that there is a low awareness regarding registration process and benefits amongst the micro enterprises which leads to low registration.

- There is no nodal agency that takes responsibility of cluster development in Delhi. While the DSIIDC has been nominated as the agency responsible for industrial development across Delhi, there are issues of overlapping spatial and functional jurisdictions. A complete lack of coordination has been observed amongst the various authorities responsible for development of industries and industrial areas.
- Also, a number of clusters are operating even though they have been labelled as non-conforming in the Master Plan of Delhi. Also a number of these still show a potential for further growth. Some of these are also allowed under the household enterprises, however have not taken the initiative to get themselves listed for redevelopment with the Department of Industries.
- In the areas that have been marked as industrial also point out the lack of infrastructure facilities within the DSIIDC industrial estates due to unwarranted political pressures and lack of coordination.

Spatial Analysis

While it is evident that Delhi has a greater concentration clusters in terms of numbers (even though it has the least number of registered micro enterprises), it is observed that Haryana and Uttar Pradesh sub region have seen a growth in certain specific sectors.

In spite of the Supreme Court ruling for the non-conforming industries to be shifted out of Delhi, the density of clusters in Delhi is seen to be higher than other states. The key reasons for this could be the better infrastructure conditions in Delhi, in terms of connectivity and power supply; and strong market linkages. Delhi is also comparatively better in terms of availability of skilled labour, training programmes and awareness.

However, with the implementation of the Master Plan of Delhi 2021 a total ban on setting up of hazardous, obnoxious industries as well as large/heavy industries which involve investment in large/heavy machinery have been adopted. Though household enterprises are allowed there is restriction in terms of activity, manpower and electricity. This has propelled growth of enterprises in rest of NCR.

Uttar Pradesh sub region closely follows Delhi in terms of number of clusters. The reason for this could be the presence of a strong market and concentration of trading activity for the products within Meerut and in the neighbouring urban areas of Muzaffarnagar, Ghaziabad etc., which instigates industrial growth in this region. The state government and the DICs are also take active interest in development of the Micro sector in Uttar Pradesh sub region.

Haryana in comparison to Uttar Pradesh sub region has fewer micro enterprise clusters as the state promotes industries with higher returns for example medium and large scale enterprises. Majority of micro manufacturing clusters in Haryana are located in Panipat and Faridabad districts. Another observation made is that the micro manufacturing sector is inclined towards to engineering clusters and the transport equipment production.

Since, Alwar is the only district of Rajasthan sub region that is part of the NCR jurisdiction, Rajasthan sub region seems to contribute lesser to NCR than the other states. During sample survey of the clusters it was observed that more than any district in rest of NCR it was in Alwar that the State Government and the DIC were so involved in the development process. Local raw materials like marble and clay have helped in the development of artisanal clusters.

Key Issues

Manpower: Across NCR, it has been observed that skilled labour in most clusters is not available. Across all sectors of micro enterprises it was evident that the entrepreneurs prefer their own kin whom they themselves train or unskilled labourers who learn on job. Also the rate of attrition of workers in these enterprises is also very high.

A lack of impetus has also been noticed amongst the entrepreneurs and labourers in taking benefits of the skill upgradation courses. The entrepreneur fears the increase in labour cost while the labour is not interested in sacrificing the daily wage for attending a course or programme.

In these clusters, awareness generation is required in terms of the benefits of using skilled workers.

Raw Material: The clusters have a common complain of rising raw material prices and the high costs of transporting material between states. Also most clusters are dependent on Delhi for procurement of raw material. In order to optimise the cost the enterprise at times may compromises on the quality of the material.

In natural resource based clusters, the availability of the material is comparatively lower than its demand due to depleting resources. Research to replace these materials is almost insignificant.

A lack of inter-sectoral dependence and market linkages has been observed in clusters within NCR. While most clusters have the potential to be fed in terms of raw material/technology/ machinery by the inter-related clusters – the awareness regarding this is absent. The clusters would function more efficiently if a stronger inter- dependence and partnership is formed between them.

Finance and Credit: The enterprises face a problem of obtaining fixed term loans and working capital loans from financial institutions. The major reason for this is the high risk perception among the banks about this sector. The enterprises have also admitted that they need to go via an agent in order to get their loan approved, thus a substantial amount of the loan is lost as agent commission.

Design and Technology: While in most clusters technological awareness is very low, where technological awareness is present, the micro enterprises are unable to employ better technology due to higher costs and lack of know-how to run the new age equipment's. The enterprises are unaware of the schemes present to subsidise technology upgradation.

Courses for technology upgradation and design development are being organised by various technical institutes in the clusters that have been chosen under various central government schemes. However, these courses do not practically train the entrepreneurs. Also knowledge regarding how to employ new age technology, the subsidies and similar provisions are not imparted to these entrepreneurs attending these courses.

At a number of clusters already chosen for intervention, timely monitoring of the progress and periodic reviews are absent. Thus the enterprises are unable to keep up with latest technology and design.

The micro and household sector, it has been observed are involved majorly in vendor jobs or job work for the tier II and tier I industries. However, the absence of technological awareness has led production of substandard products. The micro enterprises are also not able to

produce large batch of products, products of high quality required in the export market, innovative products as there is lack of knowledge of advanced machines and technology.

Physical Infrastructure: Poor connectivity and wrecked roads discourage traders/ exporters from visiting the clusters. It also affects the transportation of finished products as the instances of breakage are higher.

Clusters that produce chemical effluents as a residue need to have a CETP to prevent polluting the land or water bodies. However, most clusters note an absence of this infrastructure. The entrepreneurs are also unaware of its requirement or benefits.

Most of the enterprises are also facing issues in terms physical infrastructure like water supply, power supply, sanitation etc.

There is no or negligible supply of electricity to most of the clusters in the rural areas or smaller towns. The areas which have been classified as census towns are still getting supply as per the norms for villages. Due to this the micro enterprises are unable to switch to use of better technology which affects their growth and development adversely.

An important cluster like the handloom cluster in Panipat is facing a major water supply shortage which affects their output.

Marketing: Knowledge regarding marketing is also extremely low and most enterprises and clusters depend on the word of mouth mode of marketing. Very few clusters display their goods in haats or exhibitions at national, state or district levels. The clusters are also unable to capture the markets directly. They go through a number of agents or traders due to which the products that are sold at very high cost to the consumer yields negligible profits to the artisans.

Regarding Registration and Government Schemes: Awareness in terms of benefits of registration amongst the micro enterprises is lacking across all sectors. Also, the enterprises have an unfounded fear against registration. SHG formation has also been hampered due to this as they are either completely unaware of the government schemes or partial awareness leads to baseless reasons for not availing the scheme benefits.

Institutional Mechanism: It has been observed that barring a few districts, in most DICs there is no single authority taking complete responsibility for the development of the clusters present. The Cluster Development Officer (CDO) at the District Industries Centre (DIC) is only a symbolic position with no key performance indicators.

An instance of the same can be seen in Haryana. The State Government of Haryana has a tendency to support the medium and large scale industries which give them higher returns than the micro and small scale industries. The nodal authority of the district was unaware of the micro manufacturing clusters present within their districts.

A consequence of this is that the phenomenon of SHG formation was not observed in Haryana sub region as against Rajasthan sub region and Uttar Pradesh sub region. Due to this, the micro industries face a major constraint in availing various schemes floated by the centre.

Moreover the initiatives that have been taken up are for a specific period and activity and are not continued after the intervention is over.

It has also been observed that there are multiple Government agencies (especially in Delhi) engaged in the formulation of policy for the MSMEs and its implementation, often with

overlapping schemes. While the Ministry of MSME has the overall mandate for promotion and development of MSMEs in the country, different ministries have their own policies and programs for the MSMEs in their sectors or functional areas. A co-ordinated and comprehensive institutional framework for maximizing results of the various initiatives taken by the government is lacking. This framework needs to be extended to the point of delivery with help of appropriate institutes at the district level.

Key Recommendations

From the primary and secondary survey and analysis, it has been found that a number of clusters throughout NCR face problems of a similar nature in certain aspects. It has also been observed that a few issues were regional in nature, i.e., these issues were faced by the enterprise as a consequence of the location/ or spatial concentration. Also, certain constraints were found common to be common within a sector or manufacturing activity. Therefore, in the report, the recommendations have been divided into the following sub sections;

Manpower: Short Term Courses need be organised by the Central/State Government on a periodic basis on various aspects of design, technology, marketing, finance etc. in association with various technical institutes/financial institutes at various parts of NCR to ensure greater participation. The participants should also be given an impetus to attend these training courses in the form of stipend equivalent to the daily wages/opportunity cost.

Raw Material: In each district headquarter, raw material banks may be set up or the concept of common markets may be introduced where the enterprise may procure material in bulk at lower costs.

A common shed may also be built in these clusters where the enterprises could store their raw material as most of these lack space to store the material as a consequence of working out of their residence.

For natural resource based clusters, research and development should be initiated and funded in order to come up with new material with similar properties that could be used as a substitute for the natural resources.

If interdependency can be established between the two in terms of a supply chain linkage by a few interventions by the Ministry or the State it would be profitable to both the clusters and would aid in their growth and development. It is recommended that frequent buyer seller meets be organised and the DIC take an initiative to increase the interdependence by creating awareness or the presence of the ancillary clusters and the benefits.

Finance and Credit: The enterprises should be made aware of the various schemes related to credit which they could avail. This would reduce the menace of middlemen and agents.

Micro Enterprises need to be included in the priority sector that would lead to an increase in the net bank credit. A monitoring committee should be put in place within the bank which would monitor the progress of the project to ensure repayment of the loan. The money could be lent in instalments based on the progress reports as per the monitoring committee.

In Faridabad district in Haryana sub region, the Faridabad Small Industries Association (one of the most effective associations in northern India) has tied up with SIDBI. SIDBI provides loan to enterprises on the basis of recommendation from this association. Such a model could be encouraged in other parts of NCR too. For this, the DICs need to take an initiative and encourage the entrepreneurs to form an association as strong which could take up similar initiatives.

Design and Technology: The Government has launched a number of programmes and schemes like the National Manufacturing Competitiveness Programme with the objective of enhancing the competitiveness of MSMEs for assisting the MSMEs in adoption of best international practices to enhance their competitiveness. Awareness generation regarding these programmes and schemes need to be initiated.

Timely monitoring should be encouraged for each of the schemes under which technology upgradation is a key component. This should also be made a component of the cluster development programme.

The trainings need to include a practical demonstration at the enterprise level and the entrepreneurs need to be given the know-how of financing required equipment/tools. A few entrepreneurs/skilled workers within the Cluster may also be involved in the delivery of training.

Physical Infrastructure: The Ministry of MSME may suggest that the State take up the setting up of CETPs in the respective clusters. Another solution could be that the state provides an incentive to the private developers to come up with a CETP on a PPP mode in these clusters.

It is imperative that the concerned authorities are instructed to take responsibility and take initiatives for improvement of the physical infrastructure.

Marketing: The technical institutes should spread awareness regarding the latest techniques to market the products.

There is also a lack of linkage between the clusters and various tourist circuits that form a part of the NCR region. Delhi being the capital and a nodal point to reach a number of tourist spots in Northern India falls on various tourist circuits like Delhi- Jaipur; Delhi- Dehradun; Delhi Chandigarh- Shimla etc.

These tourist circuits should be captured and sales depots and display centres should be integrated with government guest houses/ motels or restaurants on these routes. At least one such centre should be initiated at each of these routes by the respective state government. The artisans should be made aware of these centres and should be encouraged to display their products here.

Each state should take up branding their indigenous products and advertise them on a state level portal and major magazines and the national television. However, most clusters were unaware of branding techniques and do not produce products of that quality. If made aware they can produce better quality products which could be sent to various testing centres with support from the DIC and can brand their products or tie up with a bigger brand.

Regarding Registration and Government Schemes: Aggressive Intervention of the State Government, in terms of awareness generation, is required on the benefits of registration with State Government /DIC. Registration would indicate the business seriousness of the enterprise ensuring credibility with the banks (though registration is not essential).

For unregistered enterprises it has been suggested that social security of artisans/ entrepreneurs/ workers be formulated and monitored by the State Government which includes guidance on alternative livelihoods. Social security would be a motivation for workers and prevent them from switching industries.

There are numerous government schemes which have been initiated to support and assist the MSME sector like the Mill Gate Price Scheme (MGPS) for cotton at subsidised rates for

handloom weavers; the Integrated Handloom Cluster Development Scheme (IHDS); the micro and small enterprise cluster development programme (MSE-CDP) etc. Awareness regarding the many government schemes regarding eligibility, awareness and lengthy nature of the process has led to very low enrolment in these schemes. Also, most schemes cater o the clusters that have been chosen under their purview. The purview of such schemes need cover the potential clusters identified by this study. For this the districts and the state level authorities need to share this inventory with the Centre and suggest the expansion of scheme purview or minor modification in a scheme to comply to other sectors too.

Institutional Structure: For continuous monitoring and development of at least the potential clusters, we recommend that the role of the CDO in each DIC should be as follows:

- a) Identification of various clusters in the jurisdiction and analyse their Strengths, Weakness, Opportunity & Threats
- b) Bringing out Issues/Constraints guarterly
- c) Look forward to the avenues to support cluster development
- d) Maintain close contact with the cluster development executives placed cluster level under CDP programme and extend handholding support to them as and when required.
- e) Performance Monitoring and Reporting
- f) Preparing Action Plans for Development of enterprises with special thrust on micro and household industry and
- g) Taking the necessary steps for Implementation.

These CDOs of NCR should meet quarterly to learn from each other's experiences which would enable building up partnerships amongst clusters and industries in the supply chain. The CDO should directly report to the General Manager, DIC.

Also the DICs should be modernised with the installation of computers, printers, fax etc. and the staff should be trained to use them. Necessary MIS may also be maintained by CDO in electronic form. Moreover the CDO should be in charge of both registered and unregistered enterprises in the district.

- An initiative should be taken by the state to list the micro and household enterprise clusters in their state and create a database. The DICs should take an initiative under the instructions of the state to create an awareness regarding formations of SHGs and their benefits amongst the micro and household enterprises.
- The Ministry of MSME should identify a Group of Micro Enterprises or association or SHG, a technical institute and a financial institute for each of the potential clusters to work in collaboration with each other for the overall growth and development of the cluster. The technical institute should be responsible for strengthening the technical base and the marketing capacity of the cluster and the financial institution should provide the cluster with funds for investment in better machinery, designs and marketing.
- The proposed structure has been schematically shown in the figure below:

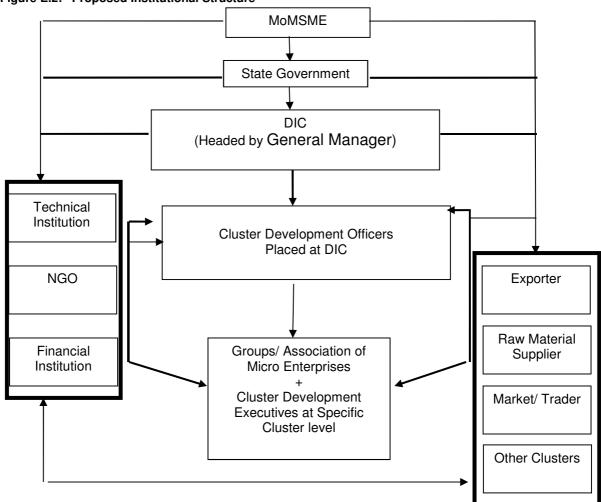


Figure E.2: Proposed Institutional Structure

Source: Findings of the study

Projects could be facilitated by NCRPB

- Mega Food Park/Other Dedicated Parks: Participating State Governments may setup dedicated parks for select sectors based on the existing policies as initiated by various Ministries like MoFPI. For implementing the above mentioned scheme, participating State Governments may submit proposal to NCRPB for seeking financial assistance as per existing guideline.
- Common Effluent Treatment Plant: Participating State Governments may submit proposal to NCRPB (as per existing NCRPB guideline) for seeking financial assistance for commissioning diagnostic reports for the clusters where CETPs as necessary. Based on which it may suggest and/ or financially assist the participating states in setting up CETPs on a PPP mode.
- Water Supply Distribution: A DPR may be prepared by the respective participating state for the Panipat cluster as it is facing issues in water supply with technical and financial assistance from NCRPB as per NCRPB, guideline.
- Common Backup for Power Supply: As all clusters in NCR out of Delhi are facing severe shortage of power, NCRPB may financially assist the State Government as per

NCRPB, guideline, to set up common power backup facilities within economically viable clusters like the Readymade Garments Cluster in Gurgaon and the Light Engineering Cluster in Faridabad.

- Diagnostic Studies: NCRPB finance for taking up of diagnostic studies for potential clusters based on which Raw Material Banks and Common Facility Centres may be set up for their assistance.
 - Raw Material Banks may be set up in each participating state other than Delhi for various materials. These may be operated and managed by an SPV.
 - A common facility centre is required in all potential clusters. NCRPB assistance may be taken by the participating State Governments for the same.
- Research & Development: participating states could seek NCRPB's support for funding R&D projects for new material to replace the natural resources used. It may also fund the setting up of R&D centres in major NCR participating cities.
- NCR Portal: The state government should come up with the portal advertising their indigenous products.

Economic Benefits

Based on the analysis and the action plans provided economic benefits of the interventions have been calculated in line with the Prime Minister's Task Force. The benefits have been calculated based on a few assumptions according to which the interventions would be undertaken across a span of 10 years based on which the micro and household sector will see a growth of about 14% annually in their turnover after the interventions have been undertaken. The detailed analysis has been presented in Volume I of the report.

1 Introduction

Micro, Small and Medium Enterprises (MSMEs) accounts for a major share of industrial production and exports within the country. With provisional estimates of a contribution of 8% to the GDP² in 2007-08 they play a key role in the development of the economy due to various inherent strengths. Acknowledging the importance of this sector the Government of India has initiated several effective steps towards the growth and development of this sector.

1.1 Overview of the MSME sector

The Micro, Small and Medium enterprises (MSME) sector contributes significantly to the manufacturing output, employment and exports of the country. It is estimated that in terms of value, the sector accounts for about 45 per cent of the manufacturing output and 40 per cent of the total exports of the country. It is also said that the sector was estimated to employ about 66 million persons in over 29 million enterprises by 2008-09. Further, this sector has consistently registered a higher growth rate than the rest of the industrial sector.

One of the facts that the 4th Census of MSME has revealed is that of the 21.4 million MSMEs, only 1.56 million are in the registered segment while the remaining 19.87 million (92%) are in the unregistered segment. Also, there are over 6000 products ranging from traditional to high-tech items, which are being manufactured by the MSMEs in India. Some of the major sub-sectors in terms of manufacturing output are food products (11.7%), textiles and readymade garments (18.3%), basic metal (4.3%), repair of personal & household goods (14.6%), Sale & maintenance of motor vehicles & motorcycles (6.0%) and furniture (5.2%).

Table 1: All India Statistics for Micro, Small & Medium Enterprises 2006-07

Category	Unit	MSME Total	Unregistered Sector	Registered Sector
Number of MSMEs	lakh	214.37	198.73	15.64
Number of Rural Units	lakh	126.75	119.68	7.07
Number of Urban Units	lakh	87.62	79.05	8.57
Number of Women Enterprises	lakh	20.21	18.06	2.15
Type of Enterprises	lakh			
Micro	lakh	213.24	198.39	14.85
Small	lakh	1.11	0.35	0.76
Medium	lakh	0.03		0.03
Nature of Activity	lakh			
Number of Manufacturing MSMEs	lakh	114.99	104.5	10.49
Repair and Maintenance	lakh	13.07	12.31	0.76
Services	lakh	81.96	81.93	0.03
Employment	lakh	501.93	408.84	93.09

Source: 4th All India Census of Micro, Small and Medium Enterprises, 2006-07

Of the total working MSME enterprises, the proportion of Micro Enterprises is around 99.5% as compared to Small Enterprises (0.5%) and Medium Enterprises (0.01%). The MSME sector consists of both Manufacturing and Service sectors. Out of 21 million, about 54% are manufacturing enterprises and about 38% are service sector enterprises. Also, of the 214.37 lakh number of MSMEs, 126.75 lakh (59%) is in the rural area. In view of the MSME sector's role in the economic and social development of the country, the Government has

² Source: Annual Report MoMSME, 2009-2010

emphasized on its growth and development. It has taken various measures/initiatives from time to time which have facilitated the sector's continuous growth. Some of the recent measures include enactment of the Micro, Small and Medium Enterprises Development Act, 2006; amendments to the Khadi and Village Industries Commission Act; Promotion of Cluster Development for Micro and Small Enterprises (MSE-CDP) etc.

1.2 The Study Objective

To draw up a plan of action for the development of Micro & Household enterprises in the National Capital Region (NCR) to ensure balanced regional development as per the mandate of National Capital Region Planning Board (NCRPB).

1.3 Need for the study

The population of NCR is expected to reach 617.26 lakhs by 2021, about 26.7% of which may reside in rural settlements. While the larger urban centres in NCR, such as Delhi, Gurgaon, Faridabad, NOIDA etc. are emerging as hubs of industry and service sector, the smaller towns and villages do not have any means of in-situ employment generation. For these smaller centres, eco-friendly means of adequate economic opportunities and employment generation needs to be taken up. There should not only be an injection of additional activities in existing and new urban centres outside NCT-Delhi but also development of micro & household enterprises of different types, such as agro-based enterprises, handicraft and handloom etc. in rural areas in order to support urbanization on the one hand and to stabilize the rural economy on the other.

In addition to the high potential for employment, the micro and households industry sector is economically important from the point of low capital investment, high ratio of value addition, and high potential for export and foreign exchange earnings for the country. It is in this regard that the National Capital Region Planning Board, which has been constituted for the planned development of the NCR, has instituted this study and awarded to Mott MacDonald through a competitive bidding process.

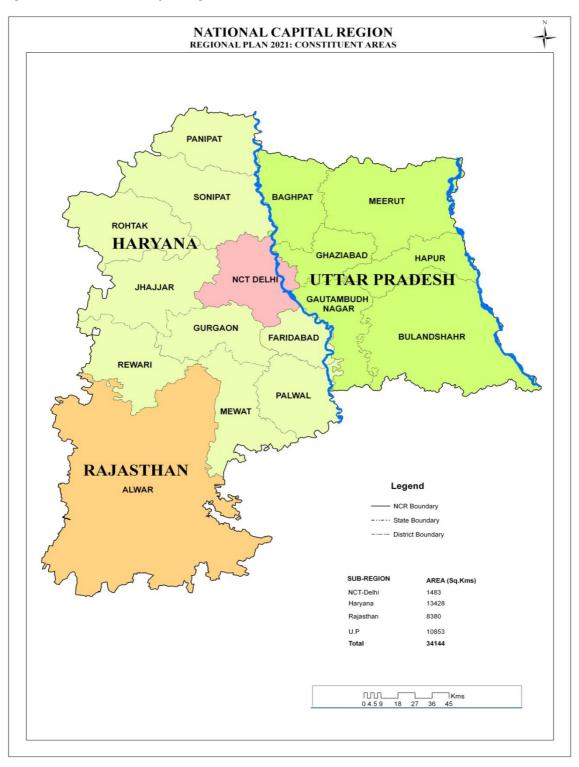
1.4 Study Area

The study had covered the NCR area covering 16 districts and the NCT of Delhi of the National Capital Region, as given below:

- National Capital Territory of Delhi (Walled City, North, South, East and West)
- Haryana sub region (Panipat, Sonepat, Rohtak, Jhajjar, Gurgaon, Faridabad, Rewari, Mewat, Palwal)
- Uttar Pradesh sub region (Baghpat, Meerut, Ghaziabad, ³Hapur, Bulandshahr, GautamBudh Nagar)

The study was undertaken during 2010-11 when Hapur was a part of Ghaziabad district hence, the report has provided data for district Ghaziabad including Hapur

Figure 1.1: National Capital Region



Source: Revised Regional Plan 2021 (*Note: The study was undertaken during 2010-11 when Hapur was a part of Ghaziabad district hence, the report has provided data for district Ghaziabad including Hapur*)

1.5 Scope of work

The scope of work as per our Contract is as follows:

- (i) Literature survey, identification of sources of data, collection of data and compilation of database (from secondary sources), primary survey of about 2500 enterprises (including handloom and handicraft units) for spatially distributed stratified multi-stage sampling in NCR should be conducted to gather information about unregistered units in this sector.
- (ii) Inventory of types / specialization of micro & household enterprises engaged in production of goods, for example, handicraft, handloom, agro-processing, agribusiness etc. with regional / local specializations in NCR.
- (iii) Identification of important micro & household enterprise clusters in NCR, SWOT analysis, identifying their comparative advantage, identifying factors contributing to the competitiveness of industry clusters; building up partnerships for development opportunities in key industries and players; prioritizing the infrastructure investment needed to improve the business environment; and strategizing development of targeted sectors, thus generating employment opportunities.
- (iv) Location / area of concentrations within NCR (both urban and rural to be shown on map)
- (v) Estimation of number of enterprises of each type
- (vi) Number of workers employed
- (vii) Sources of inputs / raw materials
- (viii) Estimated turnover and growth trends
- (ix) Trends for future growth and development including potential for new types of micro & household enterprises
- (x) Issues and constraints in spatial spread and growth of micro & household enterprises in NCR.
- (xi) Infrastructure required for growth of this sector aspects related to design improvement, skill upgradation and marketing of produce, export potential interlinkage with tourism in NCR etc.
- (xii) Identification of projects that could be taken up with NCR assistance of this sector – such as development of specialized market, common facility centres, testing and quality control centres, training institutes, industrial parks, growth centres, incubators etc.
- (xiii) Preparation of plan of action and areas for state intervention to provide special incentives / support estimation of number of jobs to be created through the Action Plan and contribution towards GDP district wise.
- (xiv) Conducting a workshop (about 100 participants) with the participating States and concerned stakeholders before finalizing the report.

The Chapter/Section/Page reference to scope of work has been indicated in Appendix A.

1.6 Methodology

The scope of work has been undertaken in the following step by step process;

1.6.1 Task 0: Sector/Sub Sector Research: The study was initiated with a background understanding of the sector from relevant sources and covered the following aspects;

- Definitions of Micro & Household Industries and other relevant terms
- Sources of Data for Micro & Household Enterprises in NCR
- Key stakeholder perceptions on sources of data NCRPB, Ministry of MSME and other agencies involved in research and implementation work for MSMEs.
- Review of broad industry statistics from the Quick Results of the 4th Census of MSME (based on 2006-07 data), State Reports of the 3rd Census of MSME and final Results of the 4th Census of MSME (based on 2006-07 data).
- Other Literature Review like survey reports of Ministry of Statistics and Programme Implementation, District Statistical Handbooks etc.

Bibliography of all referred documents for the study has been enclosed at *Appendix B*.

During discussions with the key stakeholders (refer presentation meeting held on 9th July, 2010) and as per revised Inception Report submitted on 28th July,2010, it has been agreed upon that the primary survey would only be undertaken of micro manufacturing units (with fixed premises) that have not obtained EM II registration as per MSMED Act.

1.6.2 Task 1: Secondary Data Research & Analysis: This task involved obtaining quantitative information of ALL registered micro enterprises and formulating a comprehensive district wise cluster list;

1.6.2.1 Data Collection Formats

To collect information of ALL registered micro enterprises at district level and formulation of a comprehensive cluster list at district level we prepared two formats Proforma I (pertaining to registered micro/ household enterprises) and Proforma II (pertaining to clusters). (*Please refer to Appendix C*).

Through the formats we have tried to bring out the following information;

- District Wise (Proforma I) Summarised Statistics of the number of units, investment and employment of micro industries existing until 2006 and/or 2010.
- District Wise (Proforma I) Summarised Statistics of number of Enterprises, Employment and Investment against each activity type, as per NIC 2004, existing until 2006 and/or 2010.

■ District Wise (Proforma II) — District wise listing of clusters along with number of enterprises (under the micro-classification) under each cluster and against each activity type as per NIC 2004.

The Consultants visited/probed the following Government / Institutional sources with the help of the Proformas. The complete list of contacts at various levels has been attached as Appendix D.

1.6.2.2 Source of Data - I

The district wise data on registered enterprises along with information on clusters collected during the 4th MSME Census is the most critical information required. The importance of this information was also appreciated by the NCRPB during presentation meeting held on 9th July, 2010. It is in this regard that a request was made to NCRPB to initiate talks with the Development Commissioner, MSME for facilitating the data collection. Due to various reasons such data was not finally made available and the study progressed with an alternate methodology.

1.6.2.3 Source of Data - II

In absence of above (Source of Data I), the various District Industries Centre (DICs) and Khadi and Village Industries Board (KVIB) of each district were contacted and data from a majority of them have been collected (with certain exceptions). While data from DICs were probed for questions in Proforma I and Proforma II, the data from KVIBs were only requested for Proforma I.

Subsequently, we have not analysed the KVIC data separately, to avoid duplication with data provided by DICs. NCRPB facilitated the data collection process, on request from Mott MacDonald, from all the districts through introductory letters specifying the objective of the study.

1.6.2.4 Source of Data III

In addition to DICs/ KVIBs, various Central and Regional level departments have also been contacted for information on Proforma II (Data for Proforma I was not requested for as these would result in overlapping of data with data provided by DICs). The departments (at regional level) that have been visited for this purpose are as listed below:

- Development Commissioner (Handlooms)
- National Jute Board
- Textile Commissioner
- Coir Board
- Central Silk Board
- Development Commissioner (Handicrafts)
- NI-MSME
- MSME Foundation
- UNIDO

In terms of secondary data, apart from the information acquired from the various departments the quick results of the 4th Census of MSMEs and the 3rd Census of MSMEs apart from department/institution websites (those institutions which have been involved in the research and development of clusters-list given in section 2.3) and district websites have been referred. Cluster lists extracted from all above sources (found with maximum possible efforts) have been put together to form the final compendium of clusters. The study and the

findings were undertaken in the year 2010-11 but since the finalisation of the study was done by NCRPB in 2015, the MSME profile data has been updated with the 4th MSME census data (as it was published only recently).

1.6.2.5 Time Period of Data

Under Proforma I, data was requested for existing units' until 2006-07 and until 2010. While some districts have provided information in the requested manner, others have provided annual registration details from 2004 to 2010. We have therefore used the data for analysis with suitable assumptions.

1.6.2.6 Unit of Analysis

The unit of analysis has been districts (for Delhi it is the Walled City, North, South, East and West Delhi).

1.6.2.7 Sampling Strategy

The following sampling strategy (multi stage) has been undertaken for selection of clusters and proposed for selection of units.

- 1st Stage Sampling:-The first step has been to draw a sample of clusters (proportionate & representative) from each District-proportionate in terms of number, representativeness in terms of activities and urban/rural location. The detailed method of arriving at the cluster list has been given in Chapter 4.
- 2nd Stage Sampling:-Within each selected cluster a door to door random survey was undertaken beginning with confirming whether the enterprise is manufacturing, micro and unregistered in nature. This process went on until we had covered about 20-80 enterprises depending on the total availability of enterprises within the cluster.

1.6.2.8 Mapping of Clusters

The compendium of clusters was eventually mapped onto a National Capital Region Map, for an understanding of the spatial distribution of the clusters. The mapping is only indicative of the location and does not define the cluster boundaries. The clusters for which locations were not available mapping have been done at the district headquarters. The mapping of clusters has been presented in *Appendix G*.

1.6.2.9 Data Analysis

The survey questionnaires were scanned using our in-house software Cardiff Teleform and specific data tables on SPSS were generated cluster wise. Based on the analysis drawn from primary survey as well as stakeholder consultations the following analysis was undertaken;

- **Inventory:** Based on primary and secondary survey and the approximate no. of micro enterprises within each district, the employment and turnover have been projected.
- Cluster Issues/Constraints: A cluster wise report of feedback received from enterprises on various issues such as manpower, technology, design & development, marketing etc. has been documented.

- SWOT Analysis of Clusters: From stakeholder analysis and primary survey we have analysed the Strengths, Weaknesses, Opportunities and Threats of each cluster. We have also attempted to highlight the potential clusters based on this analysis.
- Cluster Action Plan: On the basis of issues, Cluster Wise Action Plan for State Interventions has been prepared.
- Identification of Infrastructure Projects: On the basis of issues/constraints at Cluster level, certain infrastructure projects that can be taken up with NCRPB assistance has been provided.
- Constraints in Spatial Spread: The Consultants have identified the constraints in spatial spread of the clusters on the basis of comparative advantages and disadvantages of the clusters within sectors.
- **Recommendations:** Final recommendations have been made based on various analyses. While the summary of findings of the complete study as well as recommendations are being presented in Volume I the detailed cluster reports along with respective cluster action plans are presented in Volume II.
- **Economic Benefits:** Based on actions taken and the probable impact on income and employment, the economic benefits have been estimated.

1.7 Limitations of the Study

■ The district wise data collected for registered enterprises along with the information collected on clusters during the 4th MSME Census was the most critical information required. The importance of this information was also appreciated by the NCRPB during presentation meeting held on 9th July, 2010. The Development Commissioner, MSME was contacted by both NCRPB and the consultants for obtaining this data. However, the data was not made available which had caused an inconvenience in data analysis. The survey and the draft report were prepared in 2010-11 based on the data received from NICs. The report has further been updated based on data of 4th MSME Census in year 2015.

During secondary data collection the team have faced the following constraints due to which certain assumptions had to be used for visualising the extent of industrialisation in certain districts;

- The DICs have not maintained a copy of the information sent annually to the Directorate of Industries or the information sent to the Ministry of MSME during 4th Census. They also lack the manpower, time and infrastructure for compiling information required from Proforma I.
- Certain DICs were only able to provide data for Small Scale Units rather than Micro Enterprises. The analyses of the Micro Enterprises thus have been done on the basis of certain assumptions as provided by various GM of the DICs.
- The Product Coding used by DICs is as per the NIC 1987 and not as per NIC 2004, as was envisaged.

While listing clusters the team have used all sources (to the maximum extent possible) to come out with a comprehensive list of clusters, many of which are not identified by the DIC;

• Information on the many clusters present in the districts has been obtained from various other sources that have worked on Cluster Development. The DICs however are not aware of and are not able to furnish much information about these clusters in their district.

Several attempts have been made to locate the micro enterprises in the select clusters due to the following reasons leading to replacement of the clusters in certain districts. Also the sample size per cluster varies between 20-80 depending on availability of number of micro enterprises.

- The universe of micro enterprises in a cluster varies and could be assessed only on primary visit; therefore the sample size could not be determined initially. As our target sample included unregistered micro enterprises having no records, the DIC and the industrial associations were not aware of exact location and spread. At certain districts, DICs and the Industrial Associations have been non-cooperative.
- In Delhi DSIIDC is looking after enterprises, hence local information is not available for Walled City, North, South, East and West Delhi.
- Moreover clusters are not confined by any physical boundary; some of these are spread over large areas. Locating unregistered micro enterprises from door to door has resulted in low productivity of surveyors per day
- Fear of Ceiling by MCD in Delhi had deterred respondents from providing information. In other clusters also (especially in larger cities), enterprises were not willing to share information. Within some clusters, owners were not available at the time of survey, hence repeated visits were required.
- In clusters also (especially in larger cities), enterprises not willing to share information. Within some clusters, owners were not available at the time of survey; hence repeated visits had to be made to collect information.

2 Micro Industries- Genesis & Background

This chapter details definitions of certain key terms, the role of various institutions in the development of Micro Enterprises, the MSME Act and various schemes of the Government.

2.1 The MSMED Act

The Micro, Small and Medium Enterprises Development (MSMED) Act was notified in 2006 to address policy issues affecting MSMEs as well as the coverage and investment ceiling of the sector. On 9 May 2007, subsequent to an amendment of the Government of India (Allocation of Business) Rules, 1961, the Ministry of Small Scale Industries and the Ministry of Agro and Rural Industries were merged to form the Ministry of Micro, Small and Medium Enterprises (MSME). This Ministry now designs policies, programmes, projects and schemes and monitors their implementation with a view to assist MSMEs and help them scale up.

MSMED Act was established to provide for facilitating the promotion and development and enhancing the competitiveness of micro, small and medium enterprises and for matters connected therewith or incidental thereto.

The Act has been made operational from October 2, 2006.

Another major highlight of the MSMED Act is that the MSM enterprises in the service sector are also covered under the Act. Separate investment limit for plant and machinery has been prescribed for MSM enterprises in the service sector.

The MSMED Act was framed with the following objects:

- To facilitate the promotion and development of micro, small and medium scale enterprises (MSM enterprises);
- To enhance the competitiveness of MSM enterprises;
- To concentrate on the related matters of MSM enterprises;
- To extend the scope of benefits from SSI undertaking and ancillary industries to MSM enterprises.

2.2 Definitions of Relevant Terms

2.2.1 Enterprises

An institutional unit in its capacity as a producer of goods and services is known as an enterprise. An enterprise is an economic transactor with autonomy in respect of financial and investment decision making, as well as authority and responsibility for allocating resources for production of goods and services. It may be engaged in one or more economic activities at one or more locations. An enterprise may be a sole legal unit.

2.2.2 Micro Enterprises

Under The Micro, Small and Medium Enterprises Development (MSMED) Act, 2006, enterprises have been categorised broadly into those engaged in Manufacturing and Providing/Rendering of Services.

Both categories have been further classified into micro, small and medium enterprises based on their investment in plant and machinery (for manufacturing enterprises) or in equipment (in case of enterprises providing/rendering services) as under:-

- Micro Enterprises engaged in Manufacturing: Fixed Investment in Plant and Machinery up to Rs. 25 lakhs
- Micro Enterprises engaged in Providing/Rendering of Services: Fixed Investment in Equipment up to Rs. 10 lakhs.
- During the inception stage it was decided that the study would be limited to micro and household manufacturing enterprises (those with fixed investment in plant and machinery up to INR 25 Lakhs) and will not delve into the service sector.

2.2.3 Household Industries

As per Census of India, Household Industry is defined as an industry conducted by one or more members of the household at home or within the village in rural areas and only within the precincts of the house where the household lives in urban areas. The larger proportion of workers in the household industry consists of members of the household. The industry is not run on the scale of a registered factory which would qualify or has to be registered under the Indian Factories Act. Household Industry relates to production, processing, servicing, repairing or making and selling (but not merely selling) of goods.

Currently the terminology of household industries is outdated and the terminologies of fixed premises and without fixed premises have been adopted by the Ministry of MSME. Therefore in the following sections

2.2.4 Registered Micro Enterprises

Both the following definitions are considered for registered micro enterprises.

- All enterprises engaged in the activities of manufacturing or in providing/rendering of services, registered permanently with District Industries Centres up to 2.10.2006 (before the MSMED ACT, 2006 implemented) may be referred as registered enterprises- before MSMED ACT.
- All enterprises engaged in the activities of manufacturing or in providing/rendering of services, that have obtained Entrepreneurs Memorandum (EM-II) from District Industries Centres as on 31.03.2010 may be referred as registered enterprises with EM-II.

As stated in the limitations, not all the DICs were able to provide us with information on enterprises registered before 2006 and they also lack the manpower, time and infrastructure for compiling information afresh. Thus, the enterprises that have been registered with the DICs after 2006 and obtained EM II would only be considered in the study to arrive at the inventory of registered enterprises.

2.2.5 Unregistered Micro Enterprises

Unregistered Micro Enterprises: All enterprises engaged in the activities of manufacturing or in providing/rendering of services, not registered permanently or obtained Entrepreneurs Memorandum (EM) with District Industries Centres as on 31.03.2010 may be referred as unregistered enterprises. A sample of 2500 such enterprises (i.e. those that have not obtained EM II) has been chosen for primary survey.

2.2.6 Cluster

As per MSE-CDP (Micro & Small Enterprises - Cluster Development Programme), a cluster may be defined as a group of enterprises located within an identifiable and as far as practicable, contiguous area and producing same/similar products/services. The geographical bounds of a cluster may constitute a mohalla, village, block, etc. A combination of villages, towns or blocks and even a smaller district/union territory, if easily administered under the programme, may also qualify as a cluster.

The essential characteristics of enterprises in a cluster are as follows:

- Commonality in the methods of production, quality control and testing, energy conservation, pollution control, etc.;
- Same level of technology and marketing strategies/practices;
- Presence of active channel for communication among the members of the cluster; and
- Common challenges and opportunities.

2.3 Institutional Structure of MSMEs in India

The major institutions involved in the development of clusters in India have been described briefly below;

2.3.1 Central Level

The organisations involved with cluster development at central level are listed below;

- Development Commissioner (MSME), Ministry of Small Scale Industries and the National Institute of MSME (NIMSME) has adopted the cluster development approach for enhancing productivity, competitiveness and capacity building of (MSMEs) at central level. The agency is responsible for cluster development initiatives have been modelled on the UNIDO cluster development approach.
- Development Commissioner (Handicrafts), Ministry of Textiles has its scheme named the Baba Saheb Ambedkar Hastshilp Vikas Yojana Scheme (AHVY) was launched which aims at promoting Indian handicrafts by developing artisans clusters.
- Department of Science & Technology, Ministry of Science & Technology- Together with UNIDO, DST is presently implementing cluster development initiatives in 2 clusters.
- Textiles Committee of India, Ministry of Textiles- The Textiles Committee has identified.
 24 clusters for implementation under National Programme for capacity building of textile SMEs.
- Khadi and Village Industries Commission (KVIC) & Coir Board- KVIC and Coir Board are the Nodal Implementing agency for SFURTI under the Union Ministry of Agro and Rural

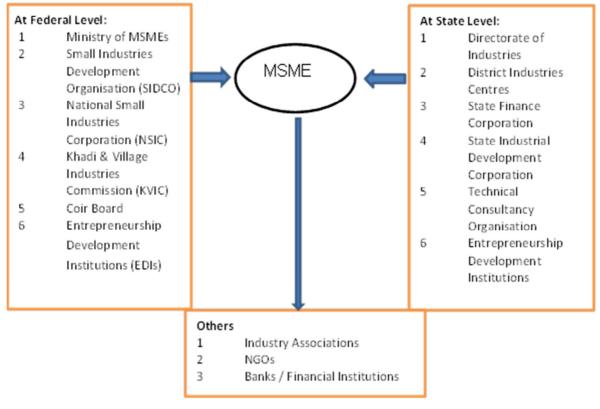
Industries. SFURTI is a scheme to develop clusters of traditional industries (mainly Khadi, Village and Coir Industry based) in various parts of the country.

2.3.2 National Support Institutions

- National Bank for Agriculture & Rural Development (NABARD)- Under the National Programme for Rural Industrialisation, NABARD has planned to develop 50 rural clusters in a span of 5 years. Objective is to strengthen existing clusters towards sustainable competitive advantage through technology upgradation/ transfer, raw material access, skill development, managerial inputs, credit and market support.
- National Small Industrial Corporation Ltd (NSIC)- The focus of NSIC's intervention in the selected 24 clusters will be to ensure coordinated assistance under various schemes and thus a greater credit off take.
- National Institute of Micro, Small and Medium Enterprises (Formerly, National Institute for Small Industry Extension Training (NISIET). The institute takes up research and consultancy projects in relation to cluster development: It also undertakes the development of clusters at various places in India. It provides Handholding services to various SFURTI clusters all over India. It also provides a technical service to Coir Clusters under SFURTI, It is responsible for preparation of Diagnostic Study Reports for a number of Clusters in Uttar Pradesh sub region, Andra Pradesh and Tamil Nadu.

Figure 2.1: Institutional Structure of MSMEs in India

Institutional Support Structure for MSMEs in India



Source: Findings of the study

- National Institute for Entrepreneurship and Small Business Development (NEISBUD)-NEISBUD acts as the Implementing Agency for three Industrial Clusters in NCR by the Office of the DC (MSME). It also prepares the Diagnostic Study Reports for several Clusters. It also monitors several Khadi and Coir Clusters under the SFURTI Scheme.
- Indian Institute of Entrepreneurship (IIE) and the MSME Foundation (which is a non-government and a non-profit institution established by the IIE)- The Institute has initiated cluster development efforts to develop the small and traditional industrial sector. The institute organises various workshops on cluster activities. The Institute is provides Technical Services for Clusters under SFURTI. The Institute provides guidance and support to Implementing Agencies for preparation of action plans. Regional Resource Centre on Cluster Development to propagate cluster development approach in NE India.

2.3.3 International Organisations

United Nations Industrial Development Organisation (UNIDO)- Contributes to the overall performance and collective efficiency of the SME clusters for sustainable development. Implementation of cluster support initiative in selected pilot clusters as well as provision of assistance to central and local institutions. To come up with a customised methodology for cluster development.

The above institutions have worked for cluster development and have a database that is relevant for us. We have therefore obtained information from all such institutions for compilation of the cluster list.

2.4 Relevant Schemes (with focus on Cluster Development)

The cluster-based approach is increasingly being recognized as one of the strategies for cost effective, inclusive, sustainable and integrated development of Micro, Small and Medium Enterprises (MSMEs), the world over. Recognizing this, several Ministries of Central Government and the State Governments have launched sector specific cluster based schemes.

Table 2.1: Key Schemes

S. No	Cluster Development Scheme	Ministry/ Department	Objectives of Schemes	Components of Scheme
1	Micro and Small Enterprise- Cluster Development Programme (MSE-CDP) (erstwhile SICDP and IID combined together)	DC MSME	 To support the sustainability and growth of MSEs by addressing common issues. To build capacity of MSEs for common supportive action through formation of self-help groups, consortia, associations, etc. To create/upgrade infrastructural facilities in the new/ existing industrial areas/ clusters. To set up common facility centres. 	 Diagnostic Study Reports Soft Interventions Detailed Project Report. Hard Intervention/Common Facility Centres (CFCs). Infrastructure Development.
2	Scheme of Fund for Regeneration of Traditional Industries (SFURTI)	Ministry of MSME through KVIC and Coir Board	 To develop clusters of traditional industries in various parts of the country. To make traditional industries more competitive, market- 	 Technology upgradation Setting up of common facilities centre. Development of new products and design

S. No	Cluster Development Scheme	Ministry/ Department	Objectives of Schemes	Components of Scheme
			driven, productive, profitable and sustained employment for artisans and rural entrepreneurs; To strengthen the local governance systems of industry clusters, with the active participation of the local stakeholders. To build up innovated and traditional skills, improved technologies, advanced processes, market intelligence and new models of public-	 New/ improved packaging Market promotion activities Capacity building activities Other activities as identified by implementing agency. Surveys and Studies
3	Comprehensive Handicrafts Cluster Development Scheme	Development Commissioner (Handicrafts), Ministry of Textiles	private partnership To enhance the competitiveness in terms of market share and ensuring increased productivity. To ensure effective integration of scattered artisans. To generate additional livelihood opportunities and increased income to artisans in this sector. To provide requisite support/ linkages those are vital for sustainability of artisans/ craftsmen in the Handicrafts sector. The core elements of the strategy are: Convergence of the resources available under various ongoing schemes. Public Private Partnership (PPP) model.	Technology Upgradation Product Diversification Common Facility centre (CFC) Resource centre Market Development Human Resource & Skill Development Social Security Physical Infrastructure Export & Marketing
4	Integrated Handloom Cluster Development Programme	Ministry of Textiles	 Proactive and strong technical and program management assistance. To focus on formation of handloom weavers' groups. To assist the handloom Weavers Groups for becoming self –sustainable, An inclusive approach to cover weavers both within and outside the Co-operative fold, To up-grade the skills of handloom weavers/workers to produce diversified products with improved quality, To provide suitable workplace to weavers, 	Core Infrastructure Common Facilities Centre H R Development Facilities Training Centres Weaving support Services Commercial Areas Textile Export Service & Marketing Centres Common Facilities for Industrial Section R &D Infrastructure
			Market orientation by associating entrepreneurs, designers and professionals	

S. No	Cluster Development Scheme	Ministry/ Department	Objectives of Schemes	Components of Scheme
			for marketing, designing and managing the production, To facilitate process of credit from financial institutions.	
5	Baba Saheb Ambedkar Hastshilp Vikas Yojana	Ministry of Textiles	 Effective collective participation of all members involved in production and marketing process. Creation of centres of excellence. Upgradation of artisan's skill through appropriate design & technology intervention. Self Sustained and self managed Artisans clusters State of Art, CFC to enhance ability of artisans to sustain in the competitive market. 	 Organisation of artisans clusters into SHGs/Cooperatives. Skill upgradation through design and technology intervention Infrastructure support for improved quality and productivity. Credit facilitation Marketing support.
6	Scheme for development of AYUSH clusters	Department of AYUSH	 To fill in the critical gaps in the sector especially related to standardization, quality assurance and control, productivity, marketing, infrastructure and capacity building through a cluster based approach. To encourage the level of organisation in the sector thereby creating social capital for sustainability of collective initiatives 	 Cost of buildings, physical infrastructure, plant and machinery for undertaking. Core interventions such as those related to setting up of common facilities for testing, certification, standardisation, quality control and other capacity building measures. Add on interventions such as hose related to marketing/ branding, provision of general infrastructure to support production units etc.

Source: Findings of the study

These apart, the several Departments of various Ministries have initiated a number of schemes for upgradation of the MSMEs and household units; namely;

Table 2.2: Other Schemes

SI. No.	Scheme	Ministry/ Department
1.	Scheme for Surveys, Studies, Policy Research; International Cooperation Scheme;	Ministry of Medium, Small and Micro Enterprises
2.	Market development assistance scheme for MSME;	Ministry of Medium, Small and Micro Enterprises
3.	Enabling manufacturing sector to be competitive through QMS/ QTT;	Ministry of Medium, Small and Micro Enterprises
4.	Lean Manufacturing competitiveness scheme under NMCP;	Ministry of Medium, Small and Micro Enterprises
5.	Marketing Assistance and technology upgradation in MSMEs;	Ministry of Medium, Small and Micro Enterprises
6.	Scheme for integrated textile parks;	Ministry of Textiles
7.	Assistance to states for developing export infrastructure and allied activities;	Ministry of Industries and Commerce

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SI. No.	Scheme	Ministry/ Department
8.	Revised market access initiative scheme;	Ministry of Industries and Commerce
9.	HRD mission for leather;	Ministry of Industries and Commerce
10.	Upgradation of government ITIs through PPP;	Ministry of Labour and Employment
11.	Assistance for exchange programme/ seminar/ conference/ workshop on AYUSH	Department of AYUSH Ministry of Health and Family Welfare
12.	Special projects under Swanajayanti Gram Swarojgar Yojana (SGSY)	Ministry of Rural Development
13.	Scheme for capacity building, strengthening of database and advocacy and for holding seminars/ symposiums/ workshops by industry/ associations;	Ministry of Medium, Small and Micro Enterprises
14.	Building awareness on IPRs; Setting up of new mini tool rooms under PPP mode;	Ministry of Medium, Small and Micro Enterprises
15.	Support for entrepreneurial and managerial development of SMEs: through Incubators;	Ministry of Medium, Small and Micro Enterprises
16.	Design clinic scheme for design expertise to MSME sector;	Ministry of Medium, Small and Micro Enterprises
17.	Technology and quality upgradation support to MSMEs;	Ministry of Medium, Small and Micro Enterprises
18.	Special handicraft training project;	Ministry of Textiles
19.	Industrial Infrastructure upgradation scheme;	Department of Industrial Policy and Promotion, Ministry of Industries and Commerce
20.	Modular employable skills (MES) under skill development initiative scheme;	Ministry of Labour and Employment
21.	Rejuvenation, modernisation and technology upgradation of coir industry	Ministry of Medium, Small and Micro Enterprises
22.	Mega food parks scheme	Ministry of Food Processing Industries
23.	R&D grants for new product/ process development etc.	Ministry of Science & Technology

As a large number of Government Departments have been involved in cluster development, we have therefore extracted all information on clusters from them to arrive at our compendium of clusters for NCR. Also as a large number of soft and hard interventions have been taken by the implementing agencies for cluster development/MSME development, we have included the list of schemes in the questionnaires to assess their impact, if any.

Source: Findings of the study

3 Profile of Industries

3.1 Micro Enterprises (Manufacturing) - District Level Analysis

The number of registered MSME units in the districts of Uttar Pradesh sub region, Haryana, Rajasthan sub region and Delhi that are covered in the jurisdiction of NCR Boundary are referred from Fourth All India Census of Micro, Small & Medium Enterprises 2006-07. The data provides information only on the manufacturing enterprises unless otherwise stated.

3.1.1 NCR - Micro Enterprises Profile

The NCR sub region has approximately 35,881 registered micro manufacturing enterprises. This has been calculated from the information received from 4th MSME census 2006-07, analysed by Mott MacDonald. Further information on clusters were collected from the respective DIC.

These enterprises are spatially spread across 15 districts (Bulandshahr, Baghpat, Gautambudh Nagar, Meerut, Ghaziabad of Uttar Pradesh sub region; Mewat, Palwal, Faridabad, Rewari, Rohtak, Panipat, Sonipat, Jhajjar and Gurgaon of Haryana sub region; Alwar district of Rajasthan sub region) and the NCT of Delhi. In all from a compendium of 209 clusters compiled from varoious sources, 48 have been chosen spread over all the 15 (and NCT Delhi) districts for primary survey.

Table 3.1: Number of Micro Enterprises NCR

SI. No.	District	Total Registered Micro Manufacturing Enterprises
1	Bulandshahr	2777
2	Baghpat	985
3	Gautambudh Nagar	2760
4	Meerut	2432
5	Ghaziabad	6641
6	Mewat	1023
7	Palwai*	160
8	Faridabad	3879
9	Rewari	875
10	Rohtak	859
11	Panipat	2660
12	Sonipat	2228
13	Jhajjar	775
14	Gurgaon	2329
15	Alwar (Alwar+ Bhiwadi)	2295
16	Delhi	3203
19	TOTAL	35881

Source: MSME Census 2006-07 and Mott MacDonald Analysis

^{*} Data for Palwal was not found in 4th MSME Census, DIC data as provided to Mott MacDonald has been considered for Palwal.

3.1.2 Uttar Pradesh - Micro Enterprises Profile

There are 24,17,742 MSME in Uttar Pradesh of which 92.23% (22,30,000) are non registered and remaining 7.76% (187742) are registered. Out of these about 63% are Manufacturing enterprises followed by 32% service and 4.7% enterprises engaged in repair & maintainance.

Out of the 1,87,742 registered MSME enterprises approximately 15,595 (8.3%) registered enterprises fall within the NCR jurisdiction as collated from the 4th Census of MSME. These enterprises are spread over the districts of Bulandshahr, Baghpat, Gautambudhnagar, Meerut, Ghaziabad and are mainly involved in food production, cotton textiles, hosiery & garments production, basic metals, machinery parts and miscellaneous product manufacturing. 12 clusters consisting of micro manufacturing enterprises engaged in similar activities have been selected for sample survey from this sub region.

Table 3.2: Profile of MSME in Uttar Pradesh

Type of Unit	Name o	Total		
Type of offic	Manufacturing	Service	Repair & Maintenance	Total
Registered	113840	31350	42552	187742
Unregistered	1410000	750000	70000	2230000
Total	1523840	781350	112552	2417742

Source: MSME Census 2006-07

3.1.2.1 Basis of Analysis

Based on the data as available from DICs, a list of SSIs classified in different activities was procured. As per the discussions with the DIC, 80% of these SSIs can be considered as micro and household enterprises and that is what has been considered for analysis.

3.1.2.2 Bulandshahr

There are about 2,777 micro units present in the Bulandshahr district of Uttar Pradesh sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Food Production, Hosiery and Garments, Electrical Machinery and Parts, and Miscellaneous Manufacturing activities are the major activities in this district. Besides these, Metal Products, Transport Equipments & Parts, Rubber Product & Plastic Products activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below:

Table 3.3: Cluster Analysis - Bulandshahr

Sr. No.	Name of Activity	Approx. Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Zari/Embroidery Cluster	100	321	Bulandshahr,Jahangirabad, Sikandrabad	3.10
2	Under Garments (Cotton) Cluster	100	330	Shikarpur, Bulandshahr	2.20
3	Pottery & Ceramic Cluster	380	2,280	Khurja	6.88

Source: Primary Survey of Sampled Clusters

From the cluster analysis, it is observed that the Zari/Embroidery Cluster, Under Garments (Cotton) Cluster and Pottery and Ceramics Clusters have good potential for development on

provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Zari/Embroidery Cluster, Under Garments (Cotton) Cluster and Pottery and Ceramics Clusters, average employment generated is around 3.21, 3.30 and 6 Employees/Unit respectively. The average turnover of single unit in Zari/Embroidery Cluster, Under Garments (Cotton) Cluster and Pottery and Ceramics Clusters is around ₹ 3.10, ₹ 2.20 and ₹ 1.81 Lakhs respectively.

We can estimate roughly that the total turnover of the district is about ₹ 55 crores while the employment is approx 12000.

a) Reconciliation

It is evident from the above analysis that the Food Production activity is the leading employment and turnover generating activities followed by miscellaneous product manufacturing activities. Electrical appliances manufacturing, Readymade Garments and wood products are the other major employment and turnover generating micro clusters. Clusters involving in Jute, Chemicals, paper products and cotton textile industries are amongst the least employment and turnover generating clusters.

3.1.2.3 **Baghpat**

There are about 985 micro units present in the Baghpat district of Uttar Pradesh sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Food Production, Hosiery and Garments and Metal Products activities are the major activities in this district. Besides these, Leather Products, Transport Equipment's & Parts, Non Metallic Mineral Products, Basic Metal Industries activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below;

Table 3.4: Cluster Analysis - Baghpat

Sr. No.	Name of Activity	Approx. Enterprises Cluster	Total in	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Handloom Cluster	285		949	Khekada	8.92

Source: Primary Survey of Sampled Clusters

From the cluster analysis, it is derived that the Handloom Cluster has very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Handloom Cluster, average employment generated is around 3.33 Employees/Unit. The average turnover of single unit in Handloom Cluster is around ₹ 3.13 Lakhs.

On the basis of per unit turnover and employment of Khekada Cluster we can estimate approximately that the total turnover of the district is ₹43 crores while total employment generated is approx. 4500.

a) Reconciliation

It is evident from the above analysis that the Cotton textile industries is the leading employment and turnover generating activities followed by Food Products manufacturing activities. Hosiery & Garments, leather products, metal products, electrical parts & machinery are the other major employment and turnover generating micro clusters. Clusters involving in Chemicals, paper products and non-metallic mineral products are amongst the least employment and turnover generating clusters.

3.1.2.4 Gautam Budh Nagar

There are about 2760 micro enterprises present in the Gautam Budh Nagar district which is a prominent industrial area of Uttar Pradesh sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Hosiery and Garments and Paper Products and Printing activities are the major activities in this district. Besides these, Food Products, Beverages, Tobacco & Tobacco Products, Wool, Silk & Synthetic Fibre Textiles and Non Metallic Mineral Products activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below;

Table 3.5: Cluster Analysis - Gautam Budh Nagar

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Readymade Garments Cluster	60	790	Delhi, NOIDA	5.07
2	Furniture (Woodwork) Cluster	50	130	NOIDA	1.08

Source: Primary Analysis from Sampled Clusters

From the cluster analysis, it is derived that the Readymade Garments Cluster and Furniture Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Readymade Garments Cluster and Furniture (Woodwork) Cluster, average employment generated is around 13.17 and 2.60 Employees/Unit respectively. The average turnover of single unit in Readymade Garments Cluster and Furniture (Woodwork) Cluster is around ₹ 8.45 and ₹ 2.15 Lakhs/Unit respectively.

The total turnover of micro enterprises in the district is approximately ₹ 200 Crores while the employment may be around 30,000.

a) Reconciliation

Gautam Budh Nagar being an industrial area, is one of the prime centres of employment generation. It is evident from the above analysis that the Hosiery and Garments production cluster forms the prominent cluster for employment and turnover generation in the district. Besides this, clusters such as metal products, machinery parts and equipment manufacturing, electrical components, chemical products, printing and publishing activities are the other major employment and turnover generating clusters.

3.1.2.5 Meerut

There are about 2432 micro enterprises present in the Meerut district which is a prominent industrial area of Uttar Pradesh sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Hosiery and Garments and Paper Products and Printing activities are the major activities in this district. Besides these, Food Products, Beverages, Tobacco & Tobacco Products, Wool, Silk & Synthetic Fibre Textiles and Non Metallic Mineral Products activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour.

Prominent Activities in Meerut is Hosiery & Garments activity show a significant growth trend indicating their prominence across the activities in the district as seen during field visit. This prominant activity is followed by Miscellaneous Manufacturing activity. Certain micro industrial clusters focused on Beverages, Jute, Hemp & Mesta Textiles, Non Metallic Mineral Products and Transport Equipments & Parts have collapsed. The least prominent industry type are the Cotton Textile, Wool, Silk & Synthetic Fibre Textiles, Paper Products & Printing, Chemical and Chemical Products and Machinery & Parts except Electrical activities in the sub region. Cluster Analysis is mentioned below

Table 3.6: Cluster Analysis - Meerut

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Sports Goods Cluster	9,000	61,920	Meerut, Delhi, NCR	503.10
2	Artificial Ornaments Cluster	1,600	4,144	Meerut	68.48
3	Musical Instruments (Band Baja) Cluster	95	341	Meerut	1.94
4	Scissors Cluster	180	484	Meerut	2.38

Source: Primary Analysis from Sampled Clusters

From the cluster analysis, it is derived that the Sports Goods Cluster, Artificial Ornaments Cluster, Musical Instruments (Band Baja) Cluster and Scissors Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Sports Goods Cluster, Artificial Ornaments Cluster, Musical Instruments (Band Baja) Cluster and Scissors Cluster, average employment generated is around 6.88, 2.59, 3.59 and 2.69 Employees/Unit respectively. The average turnover of single unit in Sports Goods Cluster, Artificial Ornaments Cluster, Musical Instruments (Band Baja) Cluster and Scissors Cluster is around ₹ 5.59, ₹ 4.28, ₹ 2.04 and ₹ 1.32 Lakhs/Unit respectively.

The total turnover of the micro enterprises in Meerut District is about ₹ 150 crores while total employment generated is about 18000.

a) Reconciliation

Meerut being an industrial area, is one of the prime centres of employment and turnover generation. It is evident from the above analysis that the Miscellaneous manufacturing activities such as Sports Goods, Scissors, Musical Instruments (Band Baja) and Electrical Appliances Manufacturing Clusters form the prominent clusters for employment and turnover generation in the district. Besides this, clusters such as Metal Products, Machinery Parts & Equipment Manufacturing, Leather Products, Textiles Products & Food Products are the other major employment and turnover generating clusters.

3.1.2.6 Ghaziabad

There are about 6641 micro enterprises which were registered in the Ghaziabad district in 2006-07. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Basic Metal Industries, Hosiery and Garments and Machinery & Parts except Electrical activities are the major activities in this district. Besides these, Food Products, Beverages, Tobacco & Tobacco Products, Wool, Silk & Synthetic Fibre Textiles and Chemical & Chemical Product activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.7: Cluster Analysis - Ghaziabad

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Modha (Cane & Bamboo Products) Cluster	100	397	Garh Mukteshwar	1.61
2	Bone Accessories Cluster	200	648	Loni, Delhi, Mumbai	7.08
3	Textile Block Printing Cluster	190	958	Pilkhuwa, Meerut, Moradabad, Delhi	9.79

Source: Primary Analysis from Sampled Clusters

From the cluster analysis, it is derived that the Modha (Cane & Bamboo Products) Cluster, Bone Accessories Cluster and Textile Block Printing Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Modha (Cane & Bamboo Products) Cluster, Bone Accessories Cluster and Textile Block Printing Cluster, average employment generated is around 3.97, 3.24 and 5.04 Employees/Unit respectively. The average turnover of single unit in Modha (Cane & Bamboo Products) Cluster, Bone Accessories Cluster and Textile Block Printing Cluster is around ₹ 1.61, ₹ 3.54 and ₹ 5.15 Lakhs respectively.

The total estimated turnover of the district is about ₹ 143 crores while the total employment generated is about 17000.

a) Reconciliation

Ghaziabad being an industrial area, is one of the prime centres of employment and turnover generation. Basic Metal Industries, Hosiery & Garments, Machinery parts and equipments forms the prominant cluster for employment and turnover generation in the district. Besides this, clusters such as rubber products and plastic products, wood production, electrical components and parts and miscellaneous products manufacturing enterprises are the other major employment and turnover generating units.

3.1.3 Haryana sub region Micro Enterprises (Manufacturing) Profile

There are 5,19,150 MSME in Haryana of which 93.61% (4,86,000) are unregistered and remaining 6.38% (33,150) are registered. Out of these about 54% enterprises are engaged in service followed by 40% in manufacturing and 6% enterprises engaged in repair & maintainance.

Out of the 33150 registered MSME enterprises, approximately 14788 (44.6%) registered enterprises fall within the NCR jurisdiction as collated from the 4th MSME Census.

These enterprises are spread over the districts of Gurgaon, Jhajjar, Sonepat, Panipat, Rohtak, Rewari, Faridabad, Palwal and Mewat. Though the micro enterprise sector is not significantly developed in this state, major activities of involvement include basic metal industries, non-metallic mineral production, machinery & parts, transport equipments & parts, paper products, cotton textile industries and miscellaneous products manufacturing activities. The district also has stone crushing and quarrying activities due to rocky terrain in certain parts.

Table 3.8: Profile of MSME

	Name			
Type of Unit	Manufacturing	Service	Repair & Maintenance	Total
Registered	26471	1524	5155	33150
Un registered	183000	277000	26000	486000
Total	209471	278524	31155	519150

Source: MSME Census 2006-07

3.1.4 Basis of Analysis

The district of Palwal where the data was not available from DICs, the number and classification of enterprises was derived as follows:

- We have assumed that denser the population of a district higher is the industrial development in the district. Therefore the total Industrial Units (Nos.)in a District = State Industrial Units (Nos.) x Percentage Share of that District's Population to State
- From the block break-up of Manufacturing & Service Industries along with State industries break up of Micro, Small & Medium industries (reference taken from Census Fourth All India Census of Micro, Small & Medium Enterprises Year: 2006-07), the total number of Micro, Small & Medium Industries occupied in Manufacturing and Service Industries has been derived by comparing percentage share in each of these sectors.
- After achieving the total Micro (manufacturing) industries in the state, the districts' total micro (manufacturing) industries has been derived by the following formula :District's Total Micro units = State's Total Micro (manufacturing) industries x Percentage Share of District's Population to State
- The districts where the data was available from DICs, a list of SSIs classified in different activities was procured. As per the discussions with the DIC, 80% of these SSIs can be considered as micro and household enterprises and that is what has been considered for analysis.

3.1.5 Mewat

There are about 1023 micro enterprises present in the Mewat district which is a newly added district of Haryana sub region. The district is newly formed from Gurgaon district and has limited spectrum of micro units involved in manufacturing activities listed by the MSME. Miscellaneous Manufacturing and Non Metallic Mineral Products activities are the major and only activities present in this district after attaining the status of a new district. Besides these, all other activities such as Food Products, Wood Production, Leather Products, Metal Products and Machinery & Parts except Electrical activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.9: Cluster Analysis - Mewat

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Mixed Cluster	13	43	Mewat	0.55

Source: Primary Analysis from Sampled Clusters

From the cluster analysis, it is derived that the Mixed Cluster has good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

Further from the cluster analysis reports of Mixed Cluster, the average employment generated is around 3.3 Employees/Unit. The average turnover of single unit in Mixed Cluster is around ₹ 4.20 Lakhs.

Based on the average figures we can approximately estimate that the total turnover of micro enterprises in the district is about ₹68 crores while the total employment generated is about 5300.

a) Reconciliation

Though the micro enterprise sector is not significantly developed, the miscellaneous products manufacturing activities and non-metallic mineral production activities are the major employment and turnover generating activities in the district. The district has stone crushing and quarrying activities due to rocky terrain in its certain parts.

3.1.5.1 Palwal

There are about 160 micro enterprises registered in the Palwal district in 2006-07 which is a newly added district of Haryana sub region. Machinery & parts except Electrical and Hosiery & Garments activities are the major activities present in this district after attaining the status of a new district. Besides these, all other activities such as Food Products, Wood Production, Rubber Products & Plastic Products, Chemical & Chemical Products, Non Metallic Mineral Products and Electrical machinery & Parts are the other activities present in the district,. Besides these, all other activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.10: Cluster Analysis - Palwal

Sr. No.	Name of Activity	Approx Enterprises Cluster	Total in	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Mixed Cluster	10		25	Palwal, Faridabad, Gujarat	0.24

Source: Primary Analysis from Sampled Clusters

From the cluster analysis, it is derived that the Mixed Cluster has good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Mixed Cluster, average employment generated is around 2.5 Employees/Unit. The average turnover of single unit in Mixed Cluster is around ₹ 2.40 Lakhs/Unit.

On the basis of per unit figures we may estimate that the micro enterprises in the district generate about ₹ 4 Crores while the employment generated is about 400.

a) Reconciliation

Though the micro enterprise sector is not significantly developed, the mechanical engineering equipment (except for electrical) manufacturing followed by the hosiery and garment sector and food production are the major employment generators in the district.

3.1.5.2 Faridabad

There are about 3879 micro enterprises that have registered in 2006-07 in Faridabad district which is a prominent industrial area of Haryana sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Machinery & Parts except Electrical activities, Miscellaneous Manufacturing and Transport Equipments & Parts are the major activities in this district. Besides these, Beverages, Tobacco & Tobacco Products, Cotton Textiles, Wool, Silk & Synthetic Fibre Textiles, Jute, Hemp & Mesta Textiles, Wood Production, Non Metallic Mineral Products and Metal Product activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.11: Cluster Analysis - Faridabad

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Light Engineering Cluster	60	452	Faridabad, Delhi, Ludhiana, Gurgaon, NOIDA	1.67
2	Auto Components Cluster	100	315	Faridabad	6.72

Source: Primary Analysis from Sampled Clusters

From the cluster analysis, it is derived that the Light Engineering Cluster and Auto Components Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Light Engineering Cluster and Auto Components Cluster, average employment generated is around 7.53 and 3.15 Employees/Unit respectively. The average turnover of single unit in Light Engineering Cluster and Auto Components Cluster is around ₹ 2.78 and ₹ 6.72 Lakhs respectively.

From the per unit average figures we can roughly estimate that the total turnover of micro enterprises in Faridabad district is about ₹ 400 crores while the total employment is about 48000.

a) Reconciliation

Faridabad district is one of the most prominent employment and turnover generating activities in the district having extremely good connectivity with the national capital. Enterprises focused on Basic Metal industries, machinery and parts excluding electrical parts are the major employment and turnover generating activities in the district. Besides these, transport equipments & parts, Chemical & chemical products, rubber products and paper products are the other prominent employment and turnover generating activities of the district.

3.1.5.3 Rewari

There are about 875 micro units present in the Rewari district of Haryana sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Metal Products, Leather Products and Jute, Hemp & Mesta Textile activities are the major activities in this district. Besides these, Food Production, Beverages, Tobacco & Tobacco Products, Cotton Textiles, Wool, Silk & Synthetic Fibre Textile, Hosiery & Garments, Wood Production, Paper Products & Printing, Rubber Products & Plastic Products, Chemical & Chemical Products, Non Metallic Mineral Products, Basic Metal Industries, Machinery & Parts except Electrical, Electrical Machinery & Parts and Transport Equipments & Parts activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.12: Cluster Analysis - Rewari

Sr. No.	Name of Activity	Approx Tot Enterprises Cluster	tal in	Approx. Generate	Employment d (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Brass Cluster	50		129		Rewari	0.81

Source: Primary Analysis from Sampled Clusters

From the cluster analysis, it is derived that the Brass Cluster has very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Brass Cluster, average employment generated is around 2.57 Employees/Unit while the average turnover is ₹ 1.61 Lakhs/Unit.

From the per unit average figures we can roughly estimate that the total turnover of micro enterprises in Rewari district is about ₹ 17 crores while the total employment is about 2700.

a) Reconciliation

The enterprises focused on Metal products are the major employment and turnover generating activities in the district. Also, miscellaneous products manufacturing activities, leather products and jute, hemp and mesta textile enterprises are the other prominent employment and turnover generating activities in the micro enterprises.

3.1.5.4 Rohtak

There are about 859 micro enterprises present in the Rohtak district which is a prominent industrial area of Haryana sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Machinery & Parts except Electrical, Transport Equipment's & Parts and Metal Products activities are the major activities in this district. Besides these, all other listed activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.13: Cluster Analysis - Rohtak

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Turned Components Cluster	140	770	Rohtak, Delhi	8.74
2	Auto Components Cluster	40	236	Rohtak, Delhi	2.34

Source: Primary Analysis from Surveyed Clusters

From the cluster analysis, it is derived that the Turned Components Cluster and Auto Components Cluster have good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Turned Components Cluster and Auto Components Cluster, average employment generated is around 5.5 and 5.9 Employees/Unit respectively. The average turnover of single unit in Mixed Cluster is around ₹ 6.24 and ₹ 5.86 Lakhs respectively.

From the above average figures we may conclude that the district has a total turnover of approx. ₹ 67 crores while the total employment is about 6400.

a) Reconciliation

Rohtak is one of the prominent auto components manufacturing sub region of the state. Machinery & parts manufacturing enterprises are the major employment and turnover generating activities in the district followed by transport equipments and parts, metal products, miscellaneous products manufacturing activities. These clusters form one of the major employment and turnover generating activities in micro enterprise clusters in the district.

3.1.5.5 **Panipat**

There are about 2660 micro enterprises present in the Panipat district which is a newly added district of Haryana sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Cotton Textiles, Machinery & Parts except Electrical activities and Transport Equipments & Parts are the major activities in this district. Besides these, Beverages, Tobacco & Tobacco Products, Wool, Silk & Synthetic Fibre Textiles, Jute, Hemp & Mesta Textiles, Wood Production, Paper Products & Printing, Non Metallic Mineral Products, Metal Product and Miscellaneous Manufacturing activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.14: Cluster Analysis - Panipat

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Foundry Cluster	35	356	Delhi, Panipat, Jharkhand, Orissa, Rajasthan sub region, Chhattisgarh, Karnataka, Goa	1.72
2	Handloom (Textile) Cluster	490	4,278	Panipat, Delhi	25.58

Source: Primary Analysis from Surveyed Clusters

From the cluster analysis, it is derived that the Foundry Cluster and Handloom (Textiles) Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Foundry Cluster and Handloom (Textiles) Cluster, average employment generated is around 10.18 and 8.73 Employees/Unit respectively. The average turnover of single unit in Foundry Cluster and Handloom (Textiles) Cluster is around ₹ 4.90 and ₹ 5.16 Lakhs/Unit respectively.

The total turnover of micro enterprises in the district is about ₹175 Crores while the total employment is about 33000.

a) Reconciliation

Panipat is known for its huge prominence in the handloom and textile sector. Cotton Textile industries are the core employment and turnover generating activities in the district followed by transport equipments & parts and machinery & parts. These clusters form one of the major employment and turnover generating activities in micro enterprise clusters in the district

3.1.5.6 **Sonepat**

There are about 2228 micro enterprises present in the Sonepat district which is a prominent industrial area of Haryana sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Paper Products & Printing and Miscellaneous Manufacturing activities are the major activities in the district. Besides these, Transport Equipments & Parts, Jute, Hemp & Mesta Textiles, Wood Production and Wool, Silk & Synthetic Fibre Textiles activities are the other major activities in this district. All other listed activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.15: Cluster Analysis - Sonepat

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Packaging Material Cluster	40	210	Sonepat, Delhi	1.83

Source: Primary Analysis from Surveyed Clusters & Based on Diagonistic Study report

From the cluster analysis, it is derived that the Packaging Material Cluster has very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Packaging Material Cluster, average employment generated is around 8.4 Employees/Unit respectively. The average turnover of single unit in Packaging Material Cluster is around ₹ 7.30 Lakhs/Unit respectively.

The total employment generated by micro enterprises in the district is about 13000 while the total estimated turnover is about ₹111 crores.

a) Reconciliation

The primary employment and turnover generating activities in the micro enterprises include manufacture of paper products and basic metal products. Besides these, transport equipment and parts, wood products and miscellaneous product manufacturing enterprises are the other prominent employment and turnover generating activities.

3.1.5.7 **Jhajjar**

There are about 775 micro enterprises present in the Jhajjar district which is a prominent industrial area of Haryana sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Miscellaneous Manufacturing activities and Non Metallic Mineral Products are the major activities in the district. Besides these, Leather Products, Jute, Hemp & Mesta Textiles, Metal Products activities are the other major activities in this district. All other listed activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.16: Cluster Analysis - Jhajjar

Sr No		Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Footwear Cluster	60	727	Delhi, Bahadurgarh	5.20

Source: Primary Analysis from Surveyed Clusters

From the cluster analysis, it is derived that the Footwear Cluster has very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Footwear Cluster, average employment generated is around 12.11 Employees/Unit respectively. The average turnover of single unit in Footwear Cluster is around ₹ 8.66 Lakhs/Unit respectively.

It is estimated that the total turnover of micro enterprises in the district is about ₹91 Crores while the total employment generated is about ₹ 126 Crores.

a) Reconciliation

The miscellaneous product manufacturing activities are the leading employment and turnover generating enterprises. Besides these, the non-metallic mineral products, leather products and jute, hemp & mesta textile products are amongst the major employment and turnover generating activities of the district.

3.1.5.8 **Gurgaon**

There are about 2329 micro enterprises present in the Gurgaon district which is a prominent industrial area of Haryana sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Transport Equipments & Parts and Miscellaneous Manufacturing are the major activities in the district. Besides these, Non Metallic Mineral Products, Hosiery & Garments, Machinery & Parts except Electrical, Chemical and Chemical Products, Electrical Machinery & Parts and Basic Metal Industries are the other major activities in this district. All other listed activities have gradually declined

due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.17: Cluster Analysis - Gurgaon

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Readymade Garments Cluster	40	540	Delhi, Faridabad, Gurgaon	14.60

Source: Primary Analysis from Survyed Clusters

From the cluster analysis, it is derived that the Readymade Garments Cluster has very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Readymade Garments, average employment generated is around 13.50 Employees/Unit respectively. The average turnover of single unit in Readymade Garments Cluster is around ₹ 36.50 Lakhs/Unit respectively.

The total estimated turnover of micro enterprises in the district is about ₹370 Crores while the total turnover is about 14000. It is felt that this approximation might not give a true picture as it is averaged out on the basis of a high turnover industry of readymade garments.

a) Reconciliation

Gurgaon is another major employment and turnover generating district of the state due to its geograhical location and excellent accessibility by surface and air. The prominent employment generators of the district are transport equipments and parts, machinery & parts except electrical and miscellanous product manufacturing enterprises. Besides these, non-metallic mineral products, chemical and chemical products, hosiery and garments wood products and basic metal industries are the other key employment and turnover generating activities of the district.

3.1.6 Rajasthan - Micro Enterprises (Manufacturing) Profile

There are 9,68,885 MSME in Rajasthan of which 94.4% (9,14,000) are unregistered and remaining 5.6% (54,885) are registered. Out of these about 58% enterprises are engaged in manufacturing followed by 38% in service and 4% enterprises engaged in repair & maintainance. Out of these, 54,885 registered MSME enterprises approximately 2,295 (4.18%) registered enterprises fall within the NCR jurisdiction in District Alwar as was collated from 4th MSME Census data. Miscellaneous products manufacturing activities is the most prominent activity followed by leather products, transportation equipments & parts and textile products.

Table 3.18: Profile of MSME

	Name of	Name of Activity (data in number)				
Type of Unit	Manufacturing	Service	Repair & Maintenance	Total		
Registered	38548	7211	9126	54885		
Un registered	526000	361000	27000	914000		
Total	564548	368211	36126	968885		

Source: MSME Census 2006-07

3.1.6.1 Basis of Analysis

In Alwar, we received data which was unorganised and therefore the following analysis had to be made:

- We have assumed that denser the population of a district higher is the industrial development in the district. Therefore the total Industrial Units (Nos.)in a District = State Industrial Units (Nos.) x Percentage Share of that District's Population to State
- From the block break-up of Manufacturing & Service Industries along with State industries break up of Micro, Small & Medium industries (reference taken from Census Fourth All India Census of Micro, Small & Medium Enterprises Year: 2006-07), the total number of Micro, Small & Medium Industries occupied in Manufacturing and Service Industries has been derived by comparing percentage share in each of these sectors.
- After achieving the total Micro (manufacturing) industries in each state, the districts' total micro (manufacturing) industries has been derived by the following formula :District's Total Micro units = State's Total Micro (manufacturing) industries x Percentage Share of District's Population to State.

3.1.6.2 Alwar

There are about 2295 micro enterprises present in the Alwar district which is a prominent industrial area of Rajasthan sub region. The district has spectrum of micro units involved in varied manufacturing activities listed by the MSME. Miscellaneous Manufacturing, Leather Products, Non Metallic Mineral Products and Transport Equipments & Parts activities are the major activities in this district. Besides these, Food Products, Beverages, Tobacco & Tobacco Products, Hosiery & Garments, Wood Production, Paper Products & Printing, Rubber Products & Plastic Products, Basic Metal Products, Metal Products and Electrical Machinery & Parts activities have gradually declined due to development of these activities in the neighbouring districts and lack of availability of skilled labour. Cluster Analysis is mentioned below.

Table 3.19: Cluster Analysis - Alwar

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Terracotta Cluster	35	141	Ramgarh	0.82
2	Leather cluster	100	481	Delhi, Rewari, Ishmailpur, Kishangarh	2.91
3	Murtikala Cluster	200	564	Alwar, Makrana, Ramgarh	5.38

Source: Primary analysis from Sampled Clusters

From the cluster analysis, it is derived that the Terracotta Cluster, Leather Cluster and Murtikala Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

From the cluster analysis reports of Terracotta Cluster, Leather Cluster and Murtikala Cluster, average employment generated is around 4.03, 4.81 and 2.82 Employees/Unit respectively. The average turnover of single unit in Terracotta Cluster, Leather Cluster and Murtikala Cluster is around ₹ 2.34, ₹ 2.91 and ₹ 2.69 Lakhs/Unit respectively.

It is estimated that the total turnover of the micro enterprises in the district is about ₹52 Crores while the employment generated is about 7600.

a) Reconciliation

Alwar district is one of the prime employment and turnover generating activities in the state of Rajasthan sub region. Miscellaneous products manufacturing activities is the leading employment and turnover generator is followed by leather products, transportation equipments and parts, textile products. The micro industries focused on manufacturing chemicals and chemical products are amongst the least employment and turnover generating enterprises compared to other enterprises.

3.1.7 NCT of Delhi – Micro Enterprises (Manufacturing) Profile

There are 178754 MSME in Delhi of which 97.8% (175000) are unregistered and remaining 2.2% (3754) are registered. Out of these about 81% enterprises are engaged in service followed by 18% in manufacturing and 0.6% enterprises engaged in repair & maintainance.

Table 3.20: Profile of MSME

	Name of A	Name of Activity (data in number)				
Type of Unit	Manufacturing	Service	Repair & Maintenance	Total		
Registered	3545	55	154	3754		
Un registered	29000	145000	1000	175000		
Total	32545	145055	1154	178754		

Source: MSME Census 2006-07

During primary survey we found that there were at least 18 clusters (we have drawn a sample of 18) in Delhi and in each cluster there were 40 enterprises on an average. It is therefore believed that Delhi has a larger number of enterprises in the micro scale than has been estimated by the Ministry. The reason for the extremely low registration in Delhi could be because registration with the Directorate of Industries is possible only if the enterprise has a license from the respective municipal authority and clearance from the Pollution Control Board.

The wool, silk and handmade textile manufacturing industries and the rubber and plastic manufacturing industries are the most prominent industry type found in Delhi followed by hosiery and garments sector. Metal products and electrical machinery and parts manufacturing units are also commonly found in the NCT of Delhi.

3.1.7.1 Basis of Analysis

The districts where the data was not available from DICs, the number and classification of enterprises was derived as follows:

■ From the block break-up of Manufacturing & Service Industries along with State industries break up of Micro, Small & Medium industries (reference taken from Census Fourth All India Census of Micro, Small & Medium Enterprises – Year: 2006-07), the total number of Micro, Small & Medium Industries occupied in Manufacturing and Service Industries has been derived by comparing percentage share in each of these sectors.

 After achieving the total Micro (manufacturing) industries in each state, the districts' total micro (manufacturing) industries has been derived by the following formula :District's Total Micro units = State's Total Micro (manufacturing) industries x Percentage Share of District's Population to State

3.1.7.2 North Delhi

From the cluster analysis, it is derived that the Non-Leather Products Cluster and Metal Fabrication Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

Table 3.21: Cluster Analysis - North Delhi

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Non-Leather Products Cluster	900	8,379	Delhi	56.70
2	Metal Fabrication Cluster	60	194	Delhi	1.57

Source: Primary Analysis from Sampled Clusters

3.1.7.3 West Delhi

From the cluster analysis, it is derived that the Non-Leather Products Cluster, Printing Cluster, Plastic Cluster and Furniture Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

Table 3.22: Cluster Analysis - West Delhi

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Non-Leather Footwear Cluster	500	2,920	Delhi	41.90
2	Printing Cluster	84	1,216	Delhi	1.51
3	Plastic Cluster	36	357	Delhi	2.00
4	Furniture Cluster	495	1,698	Delhi	25.44

Source: Primary Analysis from Sampled Clusters

3.1.7.4 East Delhi

From the cluster analysis, it is derived that the Handloom Cluster, Paper Products Cluster, Readymade Garments Cluster, Mixed Cluster and Textile Finishing Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

Table 3.23: Cluster Analysis - East Delhi

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Handloom Cluster	50	260	Delhi	1.97
2	Paper Products Cluster	30	152	Delhi	1.32
3	Readymade Garments	9500	50,825	Delhi	412.30

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
	Cluster				
4	Mixed Cluster	50	194	Delhi	2.36
5	Textile Finishing Cluster	48	189	Delhi	1.28

Source: Primary Analysis from Sampled Clusters

3.1.7.5 South Delhi

From the cluster analysis, it is derived that the Electrical Engineering Equipment Cluster, Zari/Embroidery Cluster, Printing and Publishing Cluster, Readymade Garments Clusters have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

Table 3.24: Cluster Analysis - South Delhi

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Electrical Engineering Equipment cluster	8	85	Delhi, Faridabad, Gurgaon	1.32
2	Zari/Embroidery Cluster	100	716	Delhi, Surat	3.03
3	Packaging Material Cluster	18	165	Delhi	1.14
4	Printing and Publishing Cluster	40	484	Delhi	3.10
5	Readymade Garments Cluster	40	250	Delhi	2.44
6	Readymade Garments Cluster	40	296	Delhi	1.30

Source: Primary Analysis from Sampled Clusters

3.1.7.6 Central Delhi

From the cluster analysis, it is derived that the Jewellery Cluster, Basketware Cluster and Leather Products Cluster have very good potential for development on provision of necessary soft and hard interventions as discussed in detail in the respective Cluster Reports.

Table 3.25: Cluster Analysis - Central Delhi

Sr. No.	Name of Activity	Approx Total Enterprises in Cluster	Approx. Employment Generated (Nos.)	Source of Raw Material	Estimated Turnover (₹ Crores)
1	Jewellery Cluster	300	1,458	Delhi	4.83
2	Basketware Cluster	50	318	Delhi	0.97
3	Leather Products Cluster	190	961	Delhi	6.57

Source: Primary Analysis from Sampled Clusters

a) Reconciliation

From the average figures of turnover and employment percieved at cluster level we can assume that the total turnover of micro enterprises in the district are ₹ 11 Crores while the employment generated is about 2,600.

4 Cluster Sampling

In this chapter, we present the information collected district wise for the clusters, their activity types from various sources and the actual methodology we have adopted to select a sample of clusters. This sampling methodology was presented and finalised with NCRPB during the presentation meeting held on 1st October, 2010 and 27th December, 2010.

4.1 Definition of Cluster

A group of enterprises located within an identifiable and as far as practicable, contiguous area and producing same/similar products/services is considered as a cluster. The DC, MSME considers clusters having at least 20 enterprises⁴. With this definition as has been adopted by the DC, MSME the list of clusters was obtained by the study team from various sources. Analysing the data as was collected, it was felt that the basis under which the clusters have been categorised is quite ambiguous. Moreover these clusters are not defined in terms of scale of industries it was found that clusters are made up of micro, small and medium enterprises.

4.2 Final compendium of Clusters

We have enlisted clusters in each district in discussion with all relevant stakeholders (or from published documents) such as the Development Commissioner (MSME), Development Commissioner (Handlooms), Development Commissioner (Handlooms), National Jute Board, Textile Commissioner, Coir Board, Central Silk Board, NI-MSME, MSME Foundation and UNIDO at the National and Regional Levels as well as the DIC and KVIBs at the district levels. Apart from the names of clusters, information such as major activity type, number of enterprises, and location within the district has also been sought from each of the relevant sources. The final compendium of clusters is attached as *Appendix F*.

4.3 Activity Description

From the information received on clusters we have undertaken an exercise to classify the cluster into major manufacturing activity types as per the NIC Codes 2004. Though the exercise has been undertaken at the 4 digit level of NIC codes, the summary sheet at 2 digit levels have been presented in Table 4.1 while the detailed chart at 4 digit has been presented in Table 4.3 for understanding the activity mix and spread across districts in the NCR. The codes 23, 30 and 35 have not been found in NCR and therefore not included in the matrix.

4.4 Cluster Maps

In Appendix G, the spatial distribution of the compendium of clusters has been presented. The location is indicative and does not depict the cluster boundary. For many cases wherein the location of the cluster was also not found within a district we have indicated the district headquarters as its location.

⁴ Based on discussions with Mr. Vinod Kumar, Dy. Director, Cluster Development, O/o DC MSME

	ts		arel		Wood	Paper		త	Plastic	Non- fucts		Metal	and		spoo				
	Food Products	Textiles	Wearing Apparel	Leather	Wood & \	Paper & I Products	Publishing, Printing	Chemicals Chemical Products	Rubber & P Products	Other Non- Metallic Products	Basic Metals	Fabricated Products	Machinery Equipment	Electrical Machinery	Electronic Goods	Auto Components	Furniture	Total No. of	Sample Clusters as per Proportionate Sampling
NIC Code 04	15	17	18	19	20	21	22	24	25	26	27	28	29	31	32 & 33	34	36	clusters	Method
Mewat	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Baghpat	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	1
Jhajjar	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	1	4	1
Palwal	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	4	1
Sonepat	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	5	1
Rewari	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	1	5	1
Rohtak	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	1	1	6	2
Faridabad	0	0	1	0	1	0	0	0	0	2	0	1	0	0	1	1	0	7	2
North Delhi	1	2	0	1	0	0	0	0	0	2	0	2	0	0	0	1	1	10	2
Panipat	0	3	0	1	1	0	0	0	0	0	0	1	0	0	0	0	2	8	2
Gurgaon	0	0	1	0	1	0	0	1	0	1	0	1	1	1	1	1	0	9	2
Alwar	1	2	0	2	0	0	0	1	0	2	0	0	0	0	0	1	1	10	2
Gautam Budh Nagar	0	0	1	1	0	1	0	1	2	0	0	0	1	1	1	0	1	10	2
Walled City & Walled City Extension	0	3	0	1	2	0	0	0	0	0	0	1	1	0	0	0	3	11	3
Bulandshahr	0	6	1	0	1	1	0	0	0	2	1	1	0	0	0	0	0	13	3
Ghaziabad	0	5	0	0	2	1	0	1	1	1	0	0	1	0	0	0	1	13	3
Meerut	0	4	0	1	0	0	0	0	1	1	1	2	0	1	0	1	6	18	4
East Delhi	0	9	1	1	4	1	0	0		0	1	1	0	0	0	0	4	23	5
West Delhi	0	4	0	1	1	1	2	0	4	3	0	1	1	1	1	1	3	23	5
South Delhi	0	4	2	3	2	3	1	1	2	1	0	1	1	1	1	1	2	26	6
Total																		209*	48

Source: Findings of the study *Note: The increase in number of clusters from our submission during Interim report I has happened during our 2nd field visits but it has not made any difference to the sample size.

4.5 Sampling of Clusters

From the total clusters in a district we have used the multi stage stratified random sampling method to arrive at the sample of clusters to be taken up for further survey. In Table 4.2, the proportionate sampling technique has been represented wherein the sample cluster proportionately increases with the increase in the total number of clusters.

Table 4.2: Proportionate Sampling Technique

Range of Total Clusters	Sample Clusters
1-5	1
6-10 11-15	2
	3
16-20 21-25	4
21-25	5
>26	6

Source: Findings of the study

The application of the proportionate sampling technique can be viewed in Table 4.1 which has been eventually modified and presented in Table 4.3 The compendium of clusters was prepared after having various discussions (as well obtaining information from public domain) with relevant authorities at various levels. Nevertheless various problems arose during field survey which led to change/ modification of the sample distribution. Issues included inadequate sample size at a location, refusal to answer questions by enterprises, non-cooperation of DIC and industrial associations etc. The cluster wise issues and constraints have been detailed in Table 4.5.

In the process a total of 47 clusters have been visited/ will be visited while in Mewat and Palwal micro enterprises of mixed nature have been surveyed. The spread of the presently selected clusters across activity types is detailed in Table 4.3. Clearly we have ensured that the selection represents all manufacturing activity types that are prevalent in NCR as far as possible. There is representation of both rural and urban locations as well as natural and artificial clusters with the exception of Food Products as no micro enterprises were found in the cluster of North Delhi (and in Alwar we were not sure of finding any micro enterprises as information was not backed up by the District industries Centres.)

4.6 Identification of Enterprises

In each cluster an approximate 50-53 enterprises are being interviewed such that the total number of enterprises interviewed reaches up to 2500, which is the total sample as indicated in our scope of work. During field investigations there have been clusters wherein 50-53 enterprises were not found. In such cases we have made an exception and covered between 20-53 enterprises replacing the gap in other clusters (to cover the gap the sample size in certain clusters has moved up to 80). For those clusters wherein less than 20 sample size is getting achieved, a replacement of cluster has been made within the same district/or neighbouring district. The questionnaires for field survey have been prepared in consultation with NCRPB, the final copy of which has been attached for reference at *Appendix C*.

Table 4.3: Sampled Clusters

		1	7		18	1	9	20	21	22	25		26		27	2	8	31	33	34			36			
	Zari/ Embroidery	Hand-printed textiles	Mfg of blankets/shwals/ carpets etc. by hand	Powerloom	Wearing Apparel, Garments	Footwear	Leather Products- Handbags, luggage etc.	Grass, Leaf, Fibre and Reed	Packaging Material	Printing	Mfg. of Plastic Products	Pottery & Ceramics	Stone Crushing	Terracotta	Casting of Iron and Steel	Fabrication of Metal Products	Stainless Steel Utensils	Electrical Engg. Equipment	Electronic goods	Auto Components	Bone Accessories	Sports Goods	Jewellery	Band- Baja	Furniture & Fixtures	
	1724	1714	1725	1711	1810	1920		2029	2102	2201	2520	2691	2696	2693	2731	2899	2893	3110	3311	3430	3699	3693	3699	3692	3610	Total
Mewat																										1
Baghpat			1																							1
Jhajjar						1																				1
Palwal																										1
Sonepat									1																	1
Rewari																1										1
Rohtak																				2						2
Faridabad																				2						2
North Delhi						1													1							2
Panipat			1												1											2
Gurgaon					1															1						2
Alwar						1							1	1												3
Gautambudh Nagar					1																				1	2
Central Delhi							1	1															1			3
Bulandshahr	1				1							1														3
Ghaziabad		1						1													1					3
Meerut																	1					1	- 1	1		4
East Delhi		1		1	1				1																1	4
West Delhi						1				1	1							1								5
South Delhi	1				2				1	1								1								6
																'			· · · ·			· ·	'	<u>'</u>	TOTAL	49

Source: Findings of the study

4.7 Stakeholder Consultations

Apart from enterprises, stakeholder discussions have been held at district level and cluster level the distribution of which is given in Table 4.4. In many clusters, we have not been able to find any associations and export houses. In such cases, feedback has only been taken from relevant Government Departments. The questionnaires for stakeholder consultations have been prepared in consultation with NCRPB and have been enclosed for reference at *Appendix C*.

 Table 4.4:
 Sample Distribution-Stakeholder Consultations

SI No	District	No of Clusters	DIC	KVIC /KVI B	Infrastr ucture Line Depart ments	Expo rters	Fina ncial Instit ution s	Indu strial Asso ciati on	Any other institution developin g the cluster
1	Baghpat	1	1	1	3	1	1	1	1
2	Jhajjar	1	1	1	3	1	1	1	1
3	Sonepat	1	1	1	3	1	1	1	1
4	Rewari	1	1	1	3	1	1	1	1
5	Rohtak	2	1	1	3	2	1	2	1
6	Faridabad	2	1	1	3	2	1	2	1
7	North Delhi	2	1*	1*	3	2	1	2	1
8	Panipat	2	1	1	3	2	1	2	1
9	Gurgaon	2	1	1	3	2	1	2	1
10	Alwar	3	1	1	3	3	1	3	1
11	GautamBudh Nagar	2	1	1	3	2	1	2	1
12	Walled City & Walled City Extension	3	1*	1*	3	3	1	3	1
13	Bulandshahr	3	1	1	3	3	1	3	1
14	Ghaziabad	3	1	1	3	3	1	3	1
15	Meerut	4	1	1	3	4	1	4	1
16	East Delhi	5	1*	1*	3	5	1	5	1
17	West Delhi	5	1*	1*	3	5	1	5	1
18	South Delhi	6	1*	1*	3	6	1	6	1
	Total	48	3	3	54	48	18	48	18

Source: Findings of the study

*In the districts of NCT of Delhi there is only one KVIB and one Directorate of Industries.

4.8 Sampled Clusters

The progress of the primary survey has been rather gradual due to various issues and constraints at the field level leading to revisits, details of which were presented in Interim Report II. Table 4.5 presents the final sampled clusters for the study.

Table 4.5: Sampled Clusters

Table 4	.5: Sampled Clusters	
SI No	Name of cluster	District
1	Handloom Cluster	Khekada Town, Baghpat
2	Footwear	Footwear Park, Sector 16 & 17, Industrial Area, Bahadurgar,Jhajjar
3	Corrugated Packaging	Rai Industrial Area, Sonepat
4	Brass	Choudhariwada, Rewari city, Rewari
5	Nuts & Bolts Cluster	Near Industrial Area, Rohtak Town
6	Auto Components	Near Industrial Area, Rohtak Town
7	Light Engg. Industries	Muzassar Village, Faridabad
8	Auto Components	Sector 58, Industrial Area, Faridabad
9	Non- Leather Footwear	Narela Industrial Estate, North Delhi
10	Metal Fabrication	Dhirpur Village, Kingsway Camp, North Delhi
11	Foundry	Samlakha, Panipat, Panipat
12	Handloom	Desiraj Colony, Noorwala, Jatav Road, Kabri Road, Kachcha Kavdi Pathak, Kishanpura, Ubra Khedi, Ujha Road, Panipat
13	Readymade Garments	Udyog Vihar, Gurgaon
14	Terracotta	Krishna Colony, Ramgarh, Alwar
15	Leather Cluster	Bansoor (Ismailpur, Ghasoli, Karana and Bandhaka, Chaturpura), Alwar
16	Murti Kala	Ramgarh, Alwar
17	Readymade Garments & Home Furnishings	Sector 2,4,6,7,8,9 10,11 NOIDA, Gautambudh Nagar
18	Furniture (Wood Work)	Sector 5, 8, 9, 10. NOIDA, Gautambudh Nagar
19	Jewellery	Chel Puri, Dariban Kalan, Chandni Chowk; Walled City and Walled City Extension
20	Basketware	Motia Khan to Sadar Bazar, Walled City and Walled City Extension
21	Leather Products	Nabi Karim, Walled City and Walled City Extension
22	Zari/ Embroidery Cluster	Jahangirabad , Bulandshahr
23	Under Garments Cluster (Cotton)	Shikarpur, Bulandshahr
24	Pottery and Ceramic Cluster,	Khurja , Bulandshahr
25	Modha (Cane and Bamboo products cluster)	Gadh Mukteshwar , Ghaziabad
26	Bone Accessories	Loni, Ghaziabad
27	Handloom Cluster	Pilakhuwa, Ghaziabad
28	Sports Goods products	SK Road, Phoolbagh Colony, Victoria Park, Lal Kurti, Meerut
29	Artificial Ornaments Cluster	Neel Goli, Sarafa Bazar, Kagzi Bazar, Ghanta ghar, Kabaoli Bazar, Meerut
30	Band Baja Cluster	Jolly Kothi, Patel Nagar, Kesar Gunj, Khair Nagar, Ahmed Nagar, Meerut

SI No	Name of cluster	District
31	Scissors Cluster	Peeramal Bazar, Kanch ka pool, Khair Nagar, Karim Nagar, Kotla, Karimwala, Meerut
32	Handloom Cluster	Sundarnagari, Nandnagari, East Delhi
33	Paper Products Cluster	Karawal Nagar, East Delhi
34	Readymade Garments	Gandhinagar, Kailash Nagar, East Delhi
35	Mixed Cluster	Karawal Nagar , East Delhi
36	Readymade Garments	Seelampur, East Delhi
37	Non Leather Footwear Cluster	Madipur Village & JJ Colony; West Delhi
38	Printing Cluster	Naraina Phase I & II , West Delhi
39	Electrical Engineering Equipment Cluster	Naraina Industrial Area Phase I & II, West Delhi
40	Plastic Products	Udyog Nagar , West Delhi
41	Furniture	Block A & B, Kirti Nagar, West Delhi
42	Electrical Engineering Equipment	Okhla Phase I & II, South Delhi
43	Zari/ Embroidery Cluster	Zakirnagar, Okhla, South Delhi
44	Packaging Material	Okhla Phase I & II, South Delhi
45	Printing and Publishing	Okhla Phase I & II, South Delhi
46	Readymade Garments	Okhla Phase I, II, III, South Delhi
47	Readymade Garments	Govindpuri, South Delhi

Source: Findings of the study

Apart from those listed above, micro enterprises in Mewat and Palwal have also been surveyed to understand why there is no formation of clusters in these two districts.

5 Study Findings

This chapter summarises the main findings and recommendations after undertaking an extensive secondary research and primary survey of 2500 micro manufacturing enterprises in National Capital Region. While the summary of findings of the complete study and recommendations are being presented in Volume I the detailed cluster reports along with respective cluster action plans are presented in Volume II.

5.1 Background

An inventory of enterprises state wise and sector wise have been summarised and presented in this chapter along with comparative assessment of clusters and the constraints in spatial spread.

From the primary and secondary survey and analysis, it has been found that a number of clusters throughout NCR face problems of a similar nature in certain aspects. It has also been observed that a few issues were regional in nature, i.e., these issues were faced by the enterprise as a consequence of the location/ or spatial concentration. Also certain constraints were found common to be common within a sector or manufacturing activity.

Therefore the recommendations have been suitably divided into the following sub sections;

- General Recommendations: These are those which find applicability to almost all the clusters sampled in the NCR region. These include issues related to finance, institutional structure etc.
- Regional Recommendations: These recommendations are specific to the state/ part of NCR to which these clusters belong. Each state has been found to have a peculiar set of constraints. Thus these find applicability to the specific state. These recommendations mainly include the issues related to infrastructure.
- Sector Recommendations: These recommendations are specific to the nature of manufacturing activity or the broad sector to which the clusters belong. These have been classified based on NIC 2004. These recommendations generally include the recommendations on specific raw material, markets, technology etc.
- Cluster wise Recommendations: A detailed cluster wise action plan has been prepared which consists of the general, regional, sector recommendations alongwith the responsibility and timeframe of implementation. These have been given alongwith the detailed cluster reports in Volume II.

Based on the cluster wise analysis, clusters which have a higher potential for development, which could be chosen for intervention on a priority basis has also been indicated.

5.2 Inventory of Micro Enterprises- Across States

Inventory of all activity types as per NIC 2004 was requested from the DICs. Based on information received and analysis made the following are our key findings.

- There are 24,17,742 MSME in Uttar Pradesh of which 92.23 (22,30,000) are non registered and remaining 7.76 (1,87,742) are registered. Out of these, about 63% are Manufacturing enterprises followed by 32% service and 4.7% enterprises engaged in repair & maintainance. Out of these 1,87,742 registered MSME enterprises, approximately 15,595 (8.3%) registered enterprises fall within the NCR jurisdiction as collated from 4th MSME Census. These enterprises are spread over the districts of Bulandshahr, Baghpat, Gautambudhnagar, Meerut, and Ghaziabad and are mainly involved in food production, cotton textiles, hosiery & garments production, basic metals, machinery parts and miscellaneous product manufacturing. 12 clusters consisting of micro manufacturing enterprises engaged in similar activities have been selected for sample survey from this region.
- There are 5,19,150 MSME in Haryana of which 93.61 (4,86,000) are unregistered and remaining 6.38 (33,150) are registered. Out of these about 54% enterprises are engaged in service followed by 40% in manufacturing and 6% enterprises engaged in repair & maintainance. Out of these 33,150 registered MSME enterprises approximately 14,788 (44.6%) registered enterprises fall within the NCR jurisdiction as collated from 4th MSME Census. These enterprises are spread over the districts of Gurgaon, Jhajjar, Sonepat, Panipat, Rohtak, Rewari, Faridabad, Palwal and Mewat. Though the micro enterprise sector is not significantly developed in this state, major activities of involvement include basic metal industries, non-metallic mineral production, machinery & parts, transport equipments & parts, paper products, cotton textile industries and miscellaneous products manufacturing activities. The district also has stone crushing and quarrying activities due to rocky terrain in certain parts.
- There are 9,68,885 MSME in Rajasthan sub region of which 94.4% (9,14,000) are unregistered and remaining 5.6% (54,885) are registered. Out of these about 58% enterprises are engaged in manufacturing followed by 38% in service and 4% enterprises engaged in repair & maintainance. Out of these 54885 registered MSME enterprises approximately 2295 (4.18%) registered enterprises fall within the NCR jurisdiction in District Alwar as collated from 4th MSME Census. Miscellaneous products manufacturing activities is the most prominent activity followed by leather products, transportation equipment's & parts and textile products.
- There are 1,78,754 MSME in Delhi of which 97.8% (1,75,000) are unregistered and remaining 2.2% (3754) are registered. Out of these about 81% enterprises are engaged in service followed by 18% in manufacturing and 0.6% enterprises engaged in repair & maintainance. During primary survey we found that there were at least 18 clusters (we have drawn a sample of 18) in Delhi and in each cluster there were 40 enterprises on an average. It is therefore believed that Delhi has a larger number of enterprises in the micro scale than has been estimated by the Ministry. The wool, silk and handmade textile manufacturing industries and the rubber and plastic manufacturing industries are the most prominent industry type found in Delhi followed by hosiery and garments sector. Metal products and electrical machinery and parts manufacturing units are also commonly found in the NCT of Delhi.

5.3 Inventory of Micro Enterprises- Across Sectors

The inventory of clusters across sectors has been undertaken on the basis of the compendium of clusters. It is understood from the analysis that the largest numbers of clusters have been set up for textiles followed by furniture, wood & wood products, other non-metallic products, fabricated metal products and leather. In the 4th all India Census of Micro, Small and Medium Enterprise, the prominent sectors on all-India basis is textiles, furniture, wood & wood products, other non-metallic products and fabricated metal products.

Table 5.1: Prominent Sectors of Registered MSME (all-India)

Parameters	NIC Code 04	No. of Clusters	% of Clusters
Food Products	15	2	1%
Textiles	17	47	23%
Wearing Apparel	18	7	3%
Leather	19	14	7%
Wood & Wood Products	20	20	10%
Paper & Paper Products	21	8	4%
Publishing, Printing	22	3	1%
Chemicals & Chemical Products	24	5	2%
Rubber & Plastic Products	25	6	3%
Other Non-Metallic Products	26	20	10%
Basic Metals	27	4	2%
Fabricated Metal Products	28	14	7%
Machinery and Equipment	29	8	4%
Electrical Machinery	31	5	2%
Electronic Goods	32 & 33	5	2%
Auto Components	34	9	4%
Furniture	36	28	14%
Source: 4 th MSME Census		1	

5.4 Comparative Analysis and Constraints in Spatial Development

From our visit to the various clusters and in discussion with a number of stake holders we have attempted to do a comparative advantage of clusters across administrative boundaries. While it is evident that Delhi has a concentration of a number of clusters in varied sectors (even though it has the least number of micro enterprises), it is observed that Haryana sub region and Uttar Pradesh sub region have seen a growth in certain specific sectors.

Delhi: The reason for the high density of clusters within Delhi is due to better infrastructure conditions in terms of regular supply of electricity and water (at most clusters). Delhi is also very well connected to most parts of NCR. Delhi is a stronghold of traders and trading activities hence the availability of raw material is easier in Delhi. At the same time the market for the products are also strong within Delhi. Availability & nearness to raw material as well as large market for sale is the advantage of all Delhi Clusters. Delhi enjoys the comparative advantage of availability of skilled labour and training institutes. Delhi also being the seat for the Ministry of MSME has seen a number of initiatives in terms of awareness generation by various institutes, both technical and financial. Another factor for this concentration is the

historical lineage of Delhi which has seen various cultural influences and is dated back more than a thousand years.

With the implementation of the Master Plan of Delhi 2021 a total ban on setting up of hazardous, obnoxious industries as well as large/heavy industries which involve investment in large/heavy machinery have been adopted. Though household enterprises are allowed there is restriction in terms of activity, manpower and electricity (as detailed out in Section 5.6). This has propelled growth of enterprises in rest of NCR. In Delhi there are a considerable number of regularised industrial areas operated and managed by the DSIIDC but there are no authorities looking after the household enterprises/other clusters. The Industries Commiserate has no decentralised offices such as DICs to monitor the development of the enterprises within the district.

To sum it up, Delhi has a lot of advantages due to which a large number of clusters have arisen here either in household type or in planned industrial areas or in unauthorised areas. But the policies are not conducive for industrial growth and development (especially polluting ones) therefore there is restriction in activities and also the number of micro enterprises are low.

Uttar Pradesh sub region: After Delhi, Meerut district has been observed to have a high concentration of clusters. It has been observed that Meerut city in itself has more than 18 clusters in it. The reason for this could be the availability of ancillary enterprises in the neighbouring villages within the district (Sardhana, Mawana etc.) that work on a jobwork basis for these industries. Another reason for the same could be the presence of a strong market for the products within Meerut and in the neighbouring urban areas of Muzaffarnagar, Ghaziabad etc. The concentration of trading activities also could be a major factor for the development of Meerut as a manufacturing hub within the Uttar Pradesh sub region of NCR.

Ghaziabad and Bulandshahr districts also have a number of clusters. One of the prime reasons for this could be the nearness to Delhi, the main market for their goods. Another reason could be the development of Ghaziabad as an industrial town.

While we see that Uttar Pradesh sub region has a large concentration of handloom clusters, other sectors like readymade garments, wood products, miscellaneous manufacturing industries etc also have been found in this part of NCR. The State Government and DIC is quite active in the development of clusters.

Haryana sub region: Haryana sub region, in comparison to Uttar Pradesh sub region have fewer micro manufacturing clusters as well as numbers. One of the principal reasons for this could be the Government policies. The state of Haryana promotes industries with higher returns for example medium and large scale enterprises. Majority of micro manufacturing clusters in Haryana sub region are located in Panipat and Faridabad districts. Another major observation is that the micro enterprises majorly found in Haryana sub region are mostly light engineering enterprises or those that are ancillary to the automobile industry; for example, the light engineering cluster in Faridabad, the auto component cluster in Faridabad, the nuts and bolt cluster in Rohtak (except for a few cases such as textile enterprises at Panipat). This could be because the industrial growth of Haryana sub region in NCR is bent towards automobile sector with the setting up of the Maruti Udyog plant in Gurgaon.

Rajasthan sub region: Only one district of Rajasthan sub region is included in the NCR jurisdiction. There are about 10 clusters within the district as per our cluster compendium. During sample survey of the clusters it was observed that more than any district in rest of

NCR it was in Alwar that the State Government and the DIC were so involved in the development process. Local raw materials like marble and clay have helped in the development of artisanal clusters. The clusters here have an advantage of the large tourist market at Jaipur.

Thus we can say that in all the regions the main factors for origin of the micro manufacturing enterprises is the target market followed by Government support. Proximity to Delhi also plays an important role in the concentration of clusters. It is evident from the map that as we go farther away from Delhi, the concentration of clusters diminishes. Also the concentration of clusters in Uttar Pradesh sub region is greater due to the presence of a number of large cities – Meerut, Ghaziabad, NOIDA etc. and Pro-Government policies. The larger cities mainly act as a market for the products.

Specific comparisons can be made between the clusters in similar sectors present across states;

Table 5.2: Comparative Advantage of Clusters

Delhi	Haryana sub region	Uttar Pradesh sub region	Rajasthan sub region
NIC Code 17			
Textile Dyeing Cluster, East Delhi	Handloom Cluster, Panipat	Textile Block Printing Cluster, Ghaziabad	
Handloom Cluster, East Delhi		Zari/Embroidery Cluster, Bulandshahr	
Zari/Embroidery Cluster, South Delhi		Handloom Cluster, Baghpat	
COMPARATIVE ADVA	NTAGES		l
Nearness to Market is the main attraction, even though there are restrictions in the activities that may be taken up within Delhi. Availability of power and good connectivity is also an advantage.	The genesis of this cluster is historical in nature when migrant artisans from Sind were allotted land here during Independence. Several interventions have since then been taken by Ministry of Textiles, SIDBI. The cluster is export driven and has an international reputation.	The State Government has made efforts to provide planned infrastructure to such enterprises, especially noticed in the Textile Block Printing Cluster of Pilakhuwa brought up by HPDA. The Central Government has also provided support wherever necessary.	
NIC Code 18			
Readymade Garments Cluster, East Delhi	Readymade Garments Cluster, Gurgaon	Under Garments (Cotton) Cluster, Bulandshahr	
Readymade Garments Cluster, Okhla, South		Readymade Garments and Home Furnishings	

Delhi	Haryana sub region	Uttar Pradesh sub region	Rajasthan sub region
Delhi		Cluster, Gautambudh Nagar	
Readymade Garments Cluster, Govindpuri, South Delhi			
COMPARATIVE ADVA	NTAGES		
Nearness to Market of both raw material and finished products is the main driver. Moreover planned infrastructure has been provided by DSIIDC to enterprises in Okhla.	infrastructure by HSIIDC for this sector, alongwith nearness to market, has been the key advantages for	Planned infrastructure by UPSIDC for this sector, alongwith nearness to market, has been the key advantages for growth of this cluster. Exporters are also present within the cluster.	
The readymade garments clusters in Delhi are well known nationally and internationally.			
Availability of power and good connectivity is also an advantage.			
NIC Code 19			
Leather Products Cluster, Delhi Walled City & Walled City Extension			Leather & Non Leather Shoes, Alwar
Non-leather Footwear Cluster, Narela, North Delhi			
Non-leather Footwear Cluster, Madipur, West Delhi			
ADVANTAGES			
Nearness to Market of both raw material and finished products is the main driver. Moreover planned infrastructure has been provided by DSIIDC to enterprises in Okhla.	infrastructure by HSIIDC for this sector, alongwith nearness to market, has been the key advantages for		Traditional craft, availability of local skill and tourist market are the key advantages of this cluster
The readymade			

Delhi	Haryana sub region	Uttar Pradesh sub region	Rajasthan sub region
garments clusters in Delhi are well known nationally and internationally.			
Availability of power and good connectivity is also an advantage.			
NIC Code 20			
Basketware Cluster, Delhi Walled City & Walled City Extension		Modha (Cane & Bamboo Products) Cluster, Garh Mukteshwar, Ghaziabad	
ADVANTAGES	<u> </u>	<u>-</u>	
Traditional craft, availability of local skill and nearness to market are the key advantages of this cluster		Availability of raw material, availability of local skill and nearness to market are the key advantages.	
NIC Code 21			
Paper & Paper Products Cluster, East Delhi			
Packaging Cluster, Okhla, South Delhi			
ADVANTAGES			
Nearness to Market is the main attraction, also initiatives have been taken up by DSIIDC to provide planned infrastructure.	Planned infrastructure by HSIIDC for this sector, alongwith nearness to market, has been the key advantages for growth of this cluster.		
Availability of power and good connectivity is also an advantage.			
NIC Code 26			
Terracotta Cluster, Alwar		Pottery and Ceramic Cluster, Bulandshahr	
Murti Kala Cluster, Alwar			

Delhi	Haryana sub region	Uttar Pradesh sub region	Rajasthan sub region
ADVANTAGES			
Local raw material, traditional craft, availability of local skill and tourist market are the key advantages of this cluster.		Local raw material, traditional craft, availability of local skill and tourist market are the key advantages of this cluster. A lot of initiatives have also been taken up by the Ministry and State Government for the development of this cluster.	
NIC Code 34			
Auto Components Cluster, Rohtak	Light Engineering Cluster, Faridabad		
Turning Components Cluster, Rohtak	Auto Components Cluster, Faridabad		
ADVANTAGES			
These are basically ancillary manufacturing enterprises of the large automobile and engineering hubs established in Faridabad, Gurgaon and Rewari	These are basically ancillary manufacturing enterprises of the large automobile and engineering hubs established in Faridabad, Gurgaon and Rewari		
NIC Code 36			
Furniture Cluster, Kirtinagar, West Delhi	Furniture Cluster, Gautam Budh Nagar		
ADVANTAGES			
Nearness to raw material and consumer market is the main attraction. Availability of power and good connectivity is also an advantage.	Planned infrastructure by NOIDA for this sector, alongwith nearness to market, has been the key advantages for growth of this cluster.		
Source: Findings of the study			

It is evident from the above table that only market and Government Policies but raw materials and common infrastructure play an important role in attracting entrepreneurs. To attract enterprises out of Delhi the rest of NCR would have to develop good quality infrastructure (Power, Water, and Connectivity) and the State Governments would have to play a larger role in their growth & development. It is perceived that Haryana sub region comprising of a large number of districts and enjoying the benefits of Delhi Market (bordering Delhi from North to South) must increase their initiative for the growth & development of micro enterprise clusters.

5.5 Potential Clusters

From the study undertaken, in discussion with various stakeholders including the entrepreneurs, the artisans, associations, Government officials, various technical institutions etc., the potential clusters which can be taken up for interventions on a priority basis have been identified. These have been identified based on the detailed analysis of these clusters with respect to the following criteria:

- 1. **Growth Potential:** This has been based on the trend in the past five years and the potential for growth based on the growth of other related clusters within NCR.
- 2. **Export Potential:** This has been analysed based on the product being manufactured by the respective cluster, whether they are ancillary units or not. It also based on the quality of the product and the scope for improvement.
- Congenial Environment in terms of Government Policy: This is based upon the
 various policies decided by the local authority and the state. It is also relevant in terms of
 the spatial spread of the cluster- whether they are located in a government approved
 area or is the cluster unauthorised.
- 4. **Existing Intervention:** In case a cluster has already been chosen for intervention under any scheme by the Ministry of MSME, the State Government, the DIC or other technical institutes/ private institution.
- 5. **Exclusive in terms of product:** Those clusters who manufacture exclusive products not available in any other cluster are marked as priority.

Table 5.3: Potential and Priority Clusters

SI. No	Parameters	Growth Potential	Export Potenti al	Congenial Environment in terms of Govt. Policy	Existing Intervention s /Support	Exclusive in terms of product	Potential (Priority Clusters)
1.	Textile finishing cluster, East Delhi	N	Υ	N	N	N	N (To be relocated)
2.	Textile Block Printing Cluster Ghaziabad	Υ	Υ	Υ	Υ	N	Y(Medium Priority)
3.	Handloom Cluster, East Delhi	Υ	Υ	Υ	Υ	N	Y (Low Priority)
4.	Zari/Embroidery Cluster, Bulandshahr	Υ	N	Υ	N	N	Y (High Priority)
5.	Handloom Cluster, Panipat	Υ	Υ	Υ	Υ	N	Y (Low Priority)
6.	Handloom Cluster, Baghpat	Υ	Υ	Υ	Υ	N	Y (Medium Priority)
7.	Zari/Embroidery Cluster, South Delhi	N	N	N	N	N	N (To be relocated)
8.	Readymade Garments Cluster, East Delhi	М	Υ	N	N	N	N
9.	Readymade	Υ	Υ	Υ	Υ	N	Y (Low

SI. No	Parameters	Growth Potential	Export Potenti al	Congenial Environment in terms of Govt. Policy	Existing Intervention s /Support	Exclusive in terms of product	Potential (Priority Clusters)
	Garments Cluster, Okhla, South Delhi						Priority)
10.	Readymade Garments Cluster, Govindpuri, South Delhi	N	N	N	N	N	N(To be relocated)
11.	Readymade Garments Cluster, Gurgaon	Υ	Υ	Υ	N	N	Y(High Priority)
12.	Under Garments (Cotton) Cluster, Bulandshahr	Υ	Υ	Υ	N	Υ	Y(High Priority)
13.	Readymade Garments and Home Furnishings Cluster, GautamBudh Nagar	Y	Y	Y	P	N	Y(Medium Priority)
14.	Basketware Cluster, MotiaKhan	N	N	N	N		N(To be relocated)
15.	Modha (Cane & Bamboo Products) Cluster, Garh Mukteshwar	Y	Υ	Υ	Р	Υ	Y(Medium Priority)
16.	Furniture Cluster, Kirti Nagar	Υ	Υ	Υ	N	N	Y(High Priority)
17.	Furniture Cluster, Gautambudh Nagar	Υ	N	N	N	N	Y (High Priority, to be relocated)
18.	Musical Instruments Cluster, Meerut	Υ	Υ	Υ	Υ	Υ	Y(Medium Priority)
19.	Sports Goods Cluster, Meerut	Υ	Υ	Υ	Υ	Υ	Y(Low Priority)
20.	Jewellery Cluster, Delhi Walled City & Walled City Extension	N	Υ	Υ	N	Υ	Y (High Priority)
21.	Bone Accessories Cluster, Loni, Ghaziabad	Υ	Υ	Υ	Υ	Y	Y(Low Priority)
22.	Artificial Ornaments Cluster, Meerut	Υ	Υ	Υ	Р	Υ	Y(Medium Priority)
23.	Mixed Cluster, East Delhi	Υ	N	Υ	N	N	Y(Medium Priority)
24.	Mixed Cluster, Palwal	Υ	N	N	N	N	Y (High Priority)
25.	Mixed Cluster, Mewat	Υ	N	N	N	N	Y (High Priority)
26.	Leather Products Cluster, Walled City, Delhi	N	N	N	N	N	N
27.	Non-leather Footwear Cluster, Narela, North Delhi	Υ	Υ	Υ	N	N	Y (High Priority)
28.	Non-leather Footwear Cluster, Madipur, West Delhi	Υ	N	Υ	N	N	Y (High Priority)
29.	Footwear Cluster,	Υ	Υ	Υ	Р	N	Y (Medium

SI. No	Parameters	Growth Potential	Export Potenti al	Congenial Environment in terms of Govt.	Existing Intervention s /Support	Exclusive in terms of product	Potential (Priority Clusters)		
	Jhajjar			Policy			Priority)		
30.	Leather & Non Leather Shoes, Alwar	Υ	Υ	Υ	Υ	Υ	Y (Medium Priority)		
31.	Paper & Paper Products Cluster, East Delhi	Υ	N	Υ	Υ	N	Y (Medium Priority)		
32.	Packaging Cluster, Okhla, South Delhi	Υ	N	Υ	Υ	N	Y (Medium Priority)		
33.	Corrugated Sheet Cluster, RAI, Sonepat	Υ	N	Υ	Υ	N	Y(Medium Priority)		
34.	Printing and Publishing Cluster, South Delhi	Υ	N	Υ	P	N	Y (Medium Priority)		
35.	Printing Cluster, Naraina, West Delhi	Υ	N	Υ	Р	N	Y (Medium Priority)		
36.	Plastic Cluster, West Delhi	Υ	Υ	Υ	Р	Υ	Y (High Priority)		
37.	Terracotta Cluster, Alwar	Υ	Υ	Υ	Υ	Υ	Y (Low Priority)		
38.	Murti Kala Cluster, Alwar	Υ	Υ	Υ	Υ	Υ	Y (Low Priority)		
39.	Pottery and Ceramic Cluster, Bulandshahr	Υ	Υ	Υ	Υ	Υ	Y (Low Priority)		
40.	Foundry Cluster, Samalkha, Panipat	Υ	N	Υ	Υ	Υ	Y (Low Priority)		
41.	Brass Cluster, Rewari	Υ	Υ	Υ	Р	Υ	Y (Medium Priority)		
42.	Scissor Cluster, Meerut	Y	Y	Υ	Y	Υ	Y (Low Priority)		
43.	Electrical Engineering Equipment Cluster, South Delhi	Υ	Y	Υ	Υ	N	Y (Low		
44.	Electrical Engineering Equipment Cluster, Naraina	Y	Y	Y	P	N	Priority) Y (Medium Priority		
45.	Metal Fabrication Cluster, North Delhi	Υ	N	N	N	Υ	N(To be relocated)		
46.	Light Engineering Cluster, Faridabad	Y	Υ	Υ	Υ	N	Y (Low Priority)		
47.	Auto Components Cluster, Faridabad	Υ	Υ	Υ	Υ	N	Y (Low Priority)		
48.	Auto Components Cluster, Rohtak	Υ	Υ	Υ	Υ	N	Y (Low Priority)		
49.									
	Turning Components Cluster, Rohtak	Υ	Υ	Υ	Υ	N	Y(Low Priority)		
	Yes, N = No, P = Partly, N								
Soul	Source: Findings of the study								

Even if certain clusters seem to be of nil potential and are essentially to be phased out, the Government should ensure that alternative means of livelihood are being provided to the entrepreneurs/artisans/workers or proper relocation measures are taken.

5.6 Clusters to be relocated/redeveloped

The Master Plan of Delhi 2021 imposes certain regulations on the growth of industries in Delhi. It has specified a list of permissible industries and a list of industries under the negative list, which are to be relocated. The list can be referred at *Appendix H*. This has been based a few fixed parameters for industries allowed in different Use Zones and Use Premises. It has also restricted the number of workers and the maximum industrial power load allowable in each zone for industries. The various conditions imposed by the master plan have been attached in *Appendix H*.

It is evident that a number of residential/ non-conforming areas have witnessed uncontrolled growth of industrial clusters/ household enterprises. Such enterprises have been asked to vacate the premises and relocate.

Based on these lists, it has been concluded that the following clusters that have been taken up for primary survey need to be relocated:

- Textile Finishing Cluster at East Delhi
- Zari Cluster, Zakir Nagar
- Readymade Garments Cluster, Govindpuri
- Basket ware Cluster, Motia Khan
- Metal Fabrication Cluster, North Delhi

However, on examining their growth trends, the master plan has permitted redevelopment of clusters of industrial concentration in non-conforming areas subject to the following conditions:

- The cluster should have a spread over a minimum area of 4 Ha contiguous area, having more than 70% plots within the cluster under industrial activity.
- The redevelopment scheme will have to be prepared by the concerned land owning Agency / Society (to be formed by the owners) with the approval of the MCD / DDA, subject to statutory Environmental clearances and clearances of other competent Agencies
- The redevelopment is to be based on certain norms and conditions which can be referred to in *Appendix H*. The list of clusters that have already been notified for redevelopment has been provided at *Appendix J*.
- From the primary survey it has emerged that the following non-conforming clusters also satisfy the pre-requisites and could also be notified for redevelopment:
- Leather Cluster, Nabi Karim, Central Delhi
- Readymade Garments Cluster, Gandhi Nagar/ Kailash Nagar, East Delhi
- Jewellery Cluster, Dariba Kalan, Central Delhi.

5.7 New & Potential Micro Enterprises

From an overall sector understanding, understanding of the activity mix presently available in NCR and the possible activities in the specified scale of micro enterprises it is found that the following are potential micro enterprises that may be developed in NCR.

5.7.1 Major Thrust

- Food Processing Units are a potential sector which currently has negligible number of clusters. With the help of fiscal incentives from Ministry of Food Processing Industries a large number of such enterprises may be set up in various parts of NCR. Also NCR is in the midst of the agriculturally rich belts of North India like Haryana sub region, Punjab and Uttar Pradesh sub region over and above the large market of processed food. Items that could be made include biscuit, cakes, cookies, *kulfi, confectionary* items, jams, jellies, food preserves, pickles, sweets, *namkeens*, tomato ketchup, vermicelli, macaroni etc. Specifically it was found during primary survey that there is a potential for dairy product units (cream, ghee, paneer etc.) in Mewat.
- Plastic Processing Units are a potential sector which currently has negligible number of clusters. With the help of fiscal incentives from Ministry of Chemicals and Petrochemicals a large number of such enterprises (manufacturing PVC products) may be set up in various parts of NCR. Also NCR is in the close vicinity of petrochemical projects of IOC at Panipat and GAIL at Pata over and above the large market of plastic products.
- Packaging Units (Paper, Cloth and Plastic) are a potential sector because Delhi is a large market. Wherever there is large scale manufacturing for the retail /consumer products sector there could be a cluster of packaging units which prepare the packaging material for hair oil, shampoos etc.

5.7.2 Continued Efforts

Apart from major thrust sectors continued efforts must be made in the clusters as given below as they have major drivers which would lead to substantial increase in employment. Moreover such clusters may also be promoted in economically backward districts such as Mewat, Baghpat, Palwal etc.

S.No.	Clusters	Major Drivers for Growth
1.	Handloom, Textile and Readymade Garments	Growing domestic and international market
2.	Leather based products	Growing domestic and international market
3.	Resource based clusters (terracotta, ceramics, pottery, marble statues, cane & bamboo, brass utensils)	Large and growing market of domestic and international tourists
4.	Paper & Paper Products	Large and growing services sector
5.	Printing & Publishing	Large and growing services sector
6.	Light & Heavy Engineering	Large and Growing Industrial Growt (Automobile, Telecom, IT, Defence etc.)

5.8 Projects that may be set up by respective states with NCRPB's Assistance

A corpus fund may be created by NCRPB for the following activities as micro enterprises are primary livelihood alternatives and need prime importance for regional development.

- Mega Food Park/Other Dedicated Parks: Participating State Governments may setup dedicated parks for select sectors based on the existing policies as initiated by various Ministries like MoFPI. For implementing the above mentioned scheme, participating State Governments may submit proposal to NCRPB for seeking financial assistance as per existing guideline.
- Common Effluent Treatment Plant: Participating State Governments may submit proposal to NCRPB (as per existing NCRPB guideline) for seeking financial assistance for commissioning diagnostic reports for the clusters where CETPs as necessary. Based on which it may suggest and/ or financially assist the participating states in setting up CETPs on a PPP mode.
- Water Supply Distribution: A DPR may be prepared by the respective participating state for the Panipat cluster as it is facing issues in water supply with technical and financial assistance from NCRPB as per NCRPB, guideline.
- Common Backup for Power Supply: As all clusters in NCR out of Delhi are facing severe shortage of power, NCRPB may financially assist the State Government as per NCRPB, guideline, to set up common power backup facilities within economically viable clusters like the Readymade Garments Cluster in Gurgaon and the Light Engineering Cluster in Faridabad.
- **Diagnostic Studies:** NCRPB finance for taking up of diagnostic studies for potential clusters based on which Raw Material Banks and Common Facility Centres may be set up for their assistance.
- Raw Material Banks may be set up in each participating state other than Delhi for various materials. These may be operated and managed by an SPV.
- A common facility centre is required in all potential clusters. NCRPB assistance may be taken by the participating State Governments for the same.
- Research & Development: participating states could seek NCRPB's support for funding R&D projects for new material to replace the natural resources used. It may also fund the setting up of R&D centres in major NCR participating cities.
- NCR Portal: The state government should come up with the portal advertising their indigenous products.

5.9 Case Studies

5.9.1 Handloom Cluster, Varanasi

The support structure for this cluster consists of specific handloom related government agencies, handloom cooperative societies, the district administration and financial institutions. In this cluster, the Directorate of Handlooms registers and assists the cooperative societies and monitors their work. It also manages various schemes including loom upgradation, work shed-cum-housing, design development, skill upgradation, publicity, market development assistance, support for export, group insurance, health package, etc.

The WSC provided practical training to the artisans on the new technology available and on design improvement.

The cooperative societies by and large act as private enterprises and organises work in a manner a weaving contractor does and engages with the trade channels in an identical way. The weaver members are focussed on wage payment. A society may make an occasional direct sale effort.

However, the district administration, comprising of the DIC and the DRDA do not engage in handloom-promotion work as the DoH is involved. Thus though the district administration is not involved, it acts as a boon as it does not promote overlapping of functions and lack of coordination between various institutes.

However, it has been noticed that credit institutions have stayed away from the sector.

5.9.2 Foundry Cluster, Samalkha

Based on the Diagnostic Study Report prepared for the Foundry Cluster at Samalkha, it is expected that after interventions, the association of the cluster (comprising of strong Samalkha Foundry entrepreneurs) would be strong enough to handle the issues of development of their cluster. The cluster will be linked to support organisations such as Ministry of MSME, SIDBI, Testing labs etc. It is anticipated that the number of the units will increase in the cluster and the existing units will start producing to their full capacities round the year. Production of new products would be possible based on upgradation of their machines. New channels of market will be explored and collective effort to enhance the market for the cluster will start taking place for domestic as well as export markets. It is expected that the number of support units and raw material providers will also increase accordingly.

5.9.3 Handloom Cluster, Gwalior

The Entrepreneurship Development Institute of India prepared a Diagnostic Study Report for the Handloom Weaving Cluster of Gwalior under the Integrated Handloom Cluster Development Programme commissioned by the Development Commissioner (Handlooms), Government of India.

Pre Intervention, the 350 artisans had no support from any public or private sector institute that strengthened the technical base of the weavers here. These weavers used to capture the market on an individual level and were unable to explore untapped markets due to the lack of associations of the weavers. Also the raw material was procured from local raw material suppliers and manufacturers or the master weavers.

With the interventions suggested in the Diagnostic Report in place, a technical consultant was hired to provide technical inputs to the artisans here. A consortium was created for marketing and the weavers captured the market through this consortium. The consortium widens the market base for this cluster and helps the artisans capture a large market. It also initiates participation in exhibitions and fairs.

Before intervention, the inter-linkage between various actors in the cluster was seen to be low which improved after the intervention took place.

5.9.4 Auto Component Cluster, Chennai

In respect of vendors of Ashok Leyland, the Original Equipment Manufacturer (OEM) has a tie up with SAIL, and practices an informal consortium approach wherein the steel requirements of all its vendors are clubbed together and a price is negotiated with the SAIL based on the bulk purchase. This has gone a long way in helping Ashok Leyland's vendors to reduce the raw material costs. This can be used as model in the clusters in NCR.

In this cluster NSIC is involved in Hire Purchase and leasing schemes. The Hire purchase scheme is utilised by the enterprises in the cluster for technology upgradation. The Hire Purchase Scheme has a provision for supply of indigenous and imported machinery and equipment on easy financial terms and mainly targets first generation entrepreneurs. The main aim of the Leasing scheme is to facilitate SMEs to expand their capacities or diversify and/or upgrade their technology according to the needs of the market. Under this scheme the enterprises are entitled to 100% finance under a single window for indigenous/ imported machinery and tax rebates on full-year rental.

5.9.5 Readymade Garments Cluster, Okhla

In the Readymade Garments Cluster at Okhla, the availability of strong backward and forward linkages within the cluster is notable.

Among the backward linkages there are raw material suppliers, machinery tools suppliers and other suppliers, processors of Fabric, Packing material suppliers etc within Okhla itself. There is good number of raw material suppliers who supply fabric to the units, which is the major raw material for this industry. The fabric suppliers procure fabric from Power looms units, mill units and from other sources from all over the country and supply to the readymade garment units according to the specifications & requirements. There are a number of machinery suppliers in the Cluster who supply the imported as well as indigenous machines to the industry according as per market demand. The other inputs are also available within the cluster or nearby.

Among the Forward Linkage members, there are big Export Houses/Buying Houses who use to get the bulk export order & get the goods manufactured from the manufacturers according to their design & quality, receive the goods within stipulated period, get it finished packed & Export. There are some other exporters who use to provide the direct order to the manufacturers & get the goods duly finished & packed. The buying agents in the cluster manage to check the quality & time schedule for delivery of goods.

6 Key Issues & Recommendation

6.1 Key Issues

Manpower: Across NCR, it has been observed that skilled labour in most clusters is not available. Across all sectors of micro enterprises it was evident that the entrepreneurs prefer their own kin whom they themselves train or unskilled labourers who learn on job. Also the rate of attrition of workers in these enterprises is also very high.

A lack of impetus has also been noticed amongst the entrepreneurs and labourers in taking benefits of the skill upgradation courses. The entrepreneur fears the increase in labour cost while the labour is not interested in sacrificing the daily wage for attending a course or programme.

In these clusters, awareness generation is required in terms of the benefits of using skilled workers.

Raw Material: The clusters have a common complain of rising raw material prices and the high costs of transporting material between states. Also most clusters are dependent on Delhi for procurement of raw material. In order to optimise the cost the enterprise at times may compromises on the quality of the material.

In natural resource based clusters, the availability of the material is comparatively lower than its demand due to depleting resources. Research to replace these materials is almost insignificant.

A lack of inter-sectoral dependence and market linkages has been observed in clusters within NCR. While most clusters have the potential to be fed in terms of raw material/technology/ machinery by the inter-related clusters – the awareness regarding this is absent. The clusters would function more efficiently if a stronger inter- dependence and partnership is formed between them.

Finance and Credit: The enterprises face a problem of obtaining fixed term loans and working capital loans from financial institutions. The major reason for this is the high risk perception among the banks about this sector. The enterprises have also admitted that they need to go via an agent in order to get their loan approved, thus a substantial amount of the loan is lost as agent commission.

Design and Technology: While in most clusters technological awareness is very low, where technological awareness is present, the micro enterprises are unable to employ better technology due to higher costs and lack of know-how to run the new age equipments. The enterprises are unaware of the schemes present to subsidise technology upgradation.

Courses for technology upgradation and design development are being organised by various technical institutes in the clusters that have been chosen under various central government schemes. However, these courses do not practically train the entrepreneurs. Also knowledge regarding how to employ new age technology, the subsidies and similar provisions are not imparted to these entrepreneurs attending these courses.

At a number of clusters already chosen for intervention, timely monitoring of the progress and periodic reviews are absent. Thus the enterprises are unable to keep up with latest technology and design.

The micro and household sector, it has been observed are involved majorly in vendor jobs or job work for the tier II and tier I industries. However, the absence of technological awareness has led production of substandard products. The micro enterprises are also not able to produce large batch of products, products of high quality required in the export market, innovative products as there is lack of knowledge of advanced machines and technology.

Physical Infrastructure: Poor connectivity and wrecked roads discourage traders/ exporters from visiting the clusters. It also affects the transportation of finished products as the instances of breakage are higher.

Clusters that produce chemical effluents as a residue need to have a CETP to prevent polluting the land or water bodies. However, most clusters note an absence of this infrastructure. The entrepreneurs are also unaware of its requirement or benefits.

Most of the enterprises are also facing issues in terms physical infrastructure like water supply, power supply, sanitation etc.

There is no or negligible supply of electricity to most of the clusters in the rural areas or smaller towns. The areas which have been classified as census towns are still getting supply as per the norms for villages. Due to this the micro enterprises are unable to switch to use of better technology which affects their growth and development adversely.

An important cluster like the handloom cluster in Panipat is facing a major water supply shortage which affects their output.

Marketing: Knowledge regarding marketing is also extremely low and most enterprises and clusters depend on the word of mouth mode of marketing. Very few clusters display their goods in haats or exhibitions at national, state or district levels. The clusters are also unable to capture the markets directly. They go through a number of agents or traders due to which the products that are sold at very high cost to the consumer yields negligible profits to the artisans.

Regarding Registration and Government Schemes: Awareness in terms of benefits of registration amongst the micro enterprises is lacking across all sectors. Also, the enterprises have an unfounded fear against registration. SHG formation has also been hampered due to this as they are either completely unaware of the government schemes or partial awareness leads to baseless reasons for not availing the scheme benefits.

Institutional Mechanism: It has been observed that barring a few districts, in most DICs there is no single authority taking complete responsibility for the development of the clusters present. The Cluster Development Officer (CDO) at the District Industries Centre (DIC) is only a symbolic position with no key performance indicators.

An instance of the same can be seen in Haryana. The State Government of Haryana has a tendency to support the medium and large scale industries which give them higher returns than the micro and small scale industries. The nodal authority of the district was unaware of the micro manufacturing clusters present within their districts.

A consequence of this is that the phenomenon of SHG formation was not observed in Haryana sub region as against Rajasthan sub region and Uttar Pradesh sub region. Due to this, the micro industries face a major constraint in availing various schemes floated by the centre.

Moreover the initiatives that have been taken up are for a specific period and activity and are not continued after the intervention is over.

It has also been observed that there are multiple Government agencies (especially in Delhi) engaged in the formulation of policy for the MSMEs and its implementation, often with overlapping schemes. While the Ministry of MSME has the overall mandate for promotion and development of MSMEs in the country, different ministries have their own policies and programs for the MSMEs in their sectors or functional areas. A co-ordinated and comprehensive institutional framework for maximizing results of the various initiatives taken by the government is lacking. This framework needs to be extended to the point of delivery with help of appropriate institutes at the district level.

6.2 Key Recommendations

From the primary and secondary survey and analysis, it has been found that a number of clusters throughout NCR face problems of a similar nature in certain aspects. It has also been observed that a few issues were regional in nature, i.e., these issues were faced by the enterprise as a consequence of the location/ or spatial concentration. Also, certain constraints were found common to be common within a sector or manufacturing activity. Therefore, in the report, the recommendations have been divided into the following sub sections;

- General Recommendations: These are those which find applicability to almost all the clusters sampled in the NCR region. These include issues related to finance, institutional structure etc.
- Regional Recommendations: These recommendations are specific to the state/ part of NCR to which these clusters belong. Each state has been found to have a peculiar set of constraints. Thus these find applicability to the specific state. These recommendations mainly include the issues related to infrastructure.
- Sector Recommendations: These recommendations are specific to the nature of manufacturing activity or the broad sector to which the clusters belong. These have been classified based on NIC 2004. These recommendations generally include the recommendations on specific raw material, markets, technology etc.
- **Sub region wise Recommendations:** A detailed sub region wise action plan has been prepared which consists of the general, regional, sector recommendations alongwith the responsibility and timeframe of implementation.

6.2.1 General Recommendations

Manpower: Short Term Courses need be organised by the Central/State Government on a periodic basis on various aspects of design, technology, marketing, finance etc. in association with various technical institutes/financial institutes at various parts of NCR to

ensure greater participation. The participants should also be given an impetus to attend these training courses in the form of stipend equivalent to the daily wages/opportunity cost.

Raw Material: In each district headquarter, raw material banks may be set up or the concept of common markets may be introduced where the enterprise may procure material in bulk at lower costs.

A common shed may also be built in these clusters where the enterprises could store their raw material as most of these lack space to store the material as a consequence of working out of their residence.

For natural resource based clusters, research and development should be initiated and funded in order to come up with new material with similar properties that could be used as a substitute for the natural resources.

If interdependency can be established between the two in terms of a supply chain linkage by a few interventions by the Ministry or the State it would be profitable to both the clusters and would aid in their growth and development. It is recommended that frequent buyer seller meets be organised and the DIC take an initiative to increase the interdependence by creating awareness or the presence of the ancillary clusters and the benefits.

Finance and Credit: The enterprises should be made aware of the various schemes related to credit which they could avail. This would reduce the menace of middlemen and agents.

Micro Enterprises need to be included in the priority sector that would lead to an increase in the net bank credit. A monitoring committee should be put in place within the bank which would monitor the progress of the project to ensure repayment of the loan. The money could be lent in instalments based on the progress reports as per the monitoring committee.

In Faridabad district in Haryana sub region, the Faridabad Small Industries Association (one of the most effective associations in northern India) has tied up with SIDBI. SIDBI provides loan to enterprises on the basis of recommendation from this association. Such a model could be encouraged in other parts of NCR too. For this, the DICs need to take an initiative and encourage the entrepreneurs to form an association as strong which could take up similar initiatives.

Design and Technology: The Government has launched a number of programmes and schemes like the National Manufacturing Competitiveness Programme with the objective of enhancing the competitiveness of MSMEs for assisting the MSMEs in adoption of best international practices to enhance their competitiveness. Awareness generation regarding these programmes and schemes need to be initiated.

Timely monitoring should be encouraged for each of the schemes under which technology upgradation is a key component. This should also be made a component of the cluster development programme.

The trainings need to include a practical demonstration at the enterprise level and the entrepreneurs need to be given the know-how of financing required equipment/tools. A few entrepreneurs/skilled workers within the Cluster may also be involved in the delivery of training.

Physical Infrastructure: The Ministry of MSME may suggest that the State take up the setting up of CETPs in the respective clusters. Another solution could be that the state

provides an incentive to the private developers to come up with a CETP on a PPP mode in these clusters.

It is imperative that the concerned authorities are instructed to take responsibility and take initiatives for improvement of the physical infrastructure.

Marketing: The technical institutes should spread awareness regarding the latest techniques to market the products.

There is also a lack of linkage between the clusters and various tourist circuits that form a part of the NCR region. Delhi being the capital and a nodal point to reach a number of tourist spots in Northern India falls on various tourist circuits like Delhi- Jaipur; Delhi- Dehradun; Delhi Chandigarh- Shimla etc.

These tourist circuits should be captured and sales depots and display centres should be integrated with government guest houses/ motels or restaurants on these routes. At least one such centre should be initiated at each of these routes by the respective state government. The artisans should be made aware of these centres and should be encouraged to display their products here.

Each state should take up branding their indigenous products and advertise them on a state level portal and major magazines and the national television. However, most clusters were unaware of branding techniques and do not produce products of that quality. If made aware they can produce better quality products which could be sent to various testing centres with support from the DIC and can brand their products or tie up with a bigger brand.

Regarding Registration and Government Schemes: Aggressive Intervention of the State Government, in terms of awareness generation, is required on the benefits of registration with State Government /DIC. Registration would indicate the business seriousness of the enterprise ensuring credibility with the banks (though registration is not essential).

For unregistered enterprises it has been suggested that social security of artisans/ entrepreneurs/ workers be formulated and monitored by the State Government which includes guidance on alternative livelihoods. Social security would be a motivation for workers and prevent them from switching industries.

There are numerous government schemes which have been initiated to support and assist the MSME sector like the Mill Gate Price Scheme (MGPS) for cotton at subsidised rates for handloom weavers; the Integrated Handloom Cluster Development Scheme (IHDS); the micro and small enterprise cluster development programme (MSE-CDP) etc. Awareness regarding the many government schemes regarding eligibility, awareness and lengthy nature of the process has lead to very low enrolment in these schemes. Also, most schemes cater o the clusters that have been chosen under their purview. The purview of such schemes need cover the potential clusters identified by this study. For this the districts and the state level authorities need to share this inventory with the Centre and suggest the expansion of scheme purview or minor modification in a scheme to comply to other sectors too.

Institutional Structure: It has also been observed that there are multiple Government schemes which aim at overall development of MSMEs in the country, different Ministries have their own policies and programs for the MSMEs in their sectors or functional areas. A co-ordinated and comprehensive institutional framework for maximizing results of the various initiatives taken by the government is lacking. This framework needs to be extended to the point of delivery with help of appropriate institutes at the district level.

The overall development of clusters certainly depends on continuous handholding support from concerned Central Ministry/ Department, the concerned State Government and its line department, the regional offices etc. However, it is more essential that the functionaries who are dealing with the Government programme (central or state) are specially trained and equipped to manage the programme effectively. The areas that need to be specifically considered in this regard are:

- The programme specific training to the involved functionaries.
- The strengthening of the regional offices and developmental institutions of the MSME, the proper deployment of staff therein and optimum utilization of the existing facilities.
- Frequent involvement of the relevant scientific institutions through specially funded programmes.
- The earmarking of additional funds for the study on training and other institutional needs, as well as for the specific initiatives mentioned above.

We find that there is no single authority that is practically responsible for the development of the clusters and the Cluster Development Officer (CDO) at the District Industries Centre (DIC) is only a symbolic position with no key performance indicators. In places where the DIC is active some development work has been done, in other districts MSME has done some work when the clusters have been found viable, in some others NGOs/Financial Institutions have taken up initiatives; however for the remaining there is no support from any authority. Moreover the initiatives are taken up for a specific period and activity and are not continued after the intervention is over. Presently most CDOs are drawn from different departments and are inadequately trained to carry out the specialized functions related to cluster development. The post of CDOs could also be opened up to the private sector so that young and qualified persons are provided an opportunity to carry out these challenging tasks. In the present situation the CDOs are not adequately trained and familiarized with cluster development. There is a need to provide a comprehensive long-term foundation course to freshly appointed CDOs. There is also the need to strengthen their skills and abilities through regular refresher courses specially designed on subjects such as financial management, project management, organizational behaviour, team work, and cooperation. Further, at present the facilities and support provided to the CDOs are extremely deficient. For continuous monitoring and development of at least the potential clusters, we recommend that the role of the CDO in each DIC should be as follows:

- (a) Identification of various clusters in the jurisdiction and analyse their Strengths, Weakness, Opportunity & Threats
- (b) Bringing out Issues/Constraints quarterly
- (c) Look forward to the avenues to support clusters development
- (d) Maintain close contact with the cluster development executives placed at cluster level under CDP programme and extend handholding support to them as and when required.
- (e) Performance Monitoring and Reporting
- (f) Preparing Action Plans for Development of enterprises with special thrust on micro and household industry and
- (g) Taking the necessary steps for Implementation.

These CDOs of NCR should meet quarterly to learn from each other's experiences which would enable building up partnerships amongst clusters and industries in the supply chain. The CDO should directly report to the General Manager, DIC.

Steps to be taken to revamp the DICs so that they emerge as agencies for promotion of MSME sector. The DICs should be strengthened for providing comprehensive information on policies/ schemes, projects viable in the district, marketing support etc.

Also it is found necessary that the DICs are modernised with the installation of computers, printers, fax etc. and the staff is trained to use them. Necessary MIS may also be maintained by CDO in electronic form.

The Ministry of MSME should identify a Group of Micro Enterprises, a technical institute and a financial institute for each of the potential clusters to work in collaboration with each other for the overall growth and development of the cluster. The technical institute should be responsible for strengthening the technical base and the marketing capacity of the cluster and the financial institution should provide the cluster with funds for investment in better machinery, designs and marketing. The role of each is detailed out further:

- Group of Micro Enterprises: The key industrial associations and key personalities involved in the development of this sector of industries have brought to notice that the NGOs role in the development of the Clusters is of prime importance. The NGO should be responsible for capacity building within the identified clusters. For this adequate finance should be provided to the NGOs and the CDO must ensure that each cluster especially those which are not currently having any NGO support should be associated with one of a kind. The NGOs may further develop groups/association of micro enterprises within the Cluster, with voluntary involvement from a few entrepreneurs, to make it self sustainable.
- Technical Institution: The technical institution should conduct workshops, seminars and courses for the artisans and the entrepreneurs on a periodic basis which would aid in awareness generation regarding the new technology and machinery available. The technical institution would also be responsible for enabling these enterprises to market their products using innovative techniques. NIESBUD has already undertaken one such assignment at the Bone beads cluster at Loni, Ghaziabad. UNIDO also has undertaken a similar project at the Sports Goods Cluster at Meerut. Learnings from these could be taken further for development of the potential clusters identified.
- Financial Institution: Institutions like SIDBI should be identified for each potential cluster for implementing a multi activity and multi agency project on financing and development of micro enterprise clusters. Similar experiences can be taken from the case of Handloom Cluster in Panipat where SIDBI is already implementing this.

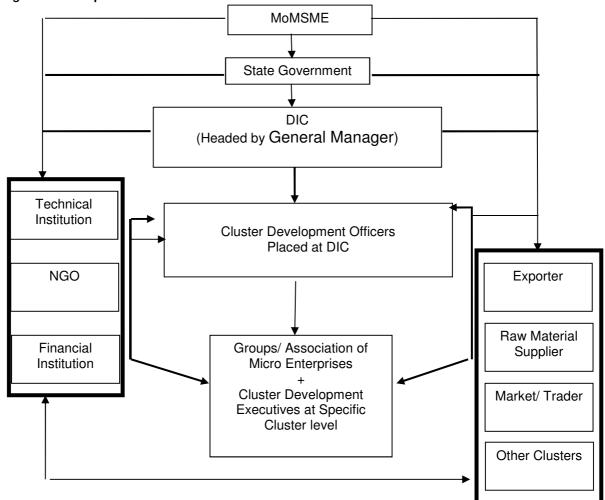


Figure 6.1: Proposed Institutional Structure

Source: Findings of the study

6.2.2 Regional Recommendations

Having undertaken a primary and secondary survey of varied clusters in the NCR region we have listed a few general recommendations which find applicability to all clusters and are necessary for future growth and employment generation.

- Aggressive Intervention of the State Government, in terms of awareness generation, is required on the benefits of registration with State Government /DIC. Registration would indicate the business seriousness of the enterprise ensuring credibility with the banks (though registration is not essential).
- For unregistered enterprises it has been suggested that social security of artisans/ entrepreneurs/ workers be formulated and monitored by the State Government which includes guidance on alternative livelihoods. Social security would be a motivation for workers and prevent them from switching industries.
- Awareness generation is also required in terms of the benefits of using skilled workers.
 Across all sectors of micro enterprises it was evident that the entrepreneurs preferred

their own kin whom they themselves train or unskilled labourers who learn on job. The entrepreneurs avoid taking skilled workers as they are more expensive.

- The Mo MSME should expand the coverage under its existing entrepreneurship and skill development programmes by adopting innovative models like tie-ups with NGOs like SEWA, educational and technical institutions and e-learning. The clusters could have SHGs who in turn can have Federations- this will enable them to have better market and credit linkages
- Short Term Courses need be organised by the Central/State Government on a periodic basis on various aspects of design, technology, marketing, finance etc. This could be achieved in association with various technical institutes/financial institutes. These courses should be organised at various parts of NCR rather than only in Delhi, which would ensure greater participation. The participants (artisans/technicians/supervisors etc.) should be given an impetus to attend these training courses in the form of stipend equivalent to the daily wages/opportunity cost. This would encourage greater attendance and would help in skill up-gradation and employment generation. Another very important aspect of training is the practical demonstration which seems to be missing in most courses. The trainings need to include a practical demonstration at the enterprise level and the entrepreneurs need to be given the know-how of financing required equipment/ tools. A few entrepreneurs/ skilled workers within the Cluster may also be involved in the delivery of training.
- A major constraint that a number of these enterprises face is that of procuring the raw material. Most of these clusters are dependent on Delhi for procuring the material. To overcome this problem of high costs of raw material, it becomes necessary that raw material banks be set up in each district headquarter which provides the micro enterprises with material at subsidised rates for bulk purchases. The system of open common markets on a weekly basis maybe encouraged at major towns in each district, where the enterprises may purchase the material at wholesale prices- this will reduce the overhead costs of transportation for the enterprises.
- The micro enterprises have issues in obtaining fixed term loans and working capital loans from the banks. Also most of the enterprises are facing a problem of timely credit. The major reason for this has been the high risk perception among the banks about this sector. Micro Enterprises need to be included in the priority sector that would lead to increase in the net bank credit. For MSME units found to be unviable by the banks, an administrative mechanism may be put in place at district level, under the GM (DIC) to reexamine the viability and implement a rehabilitation package, wherever necessary. The rehabilitation package may comprise, besides additional lending by banks, of relief and concessions in statutory dues by the State Governments/autonomous bodies, Power Supply Company etc.
- A monitoring committee should be put in place by the lead bank which would monitor the progress of the project(s) that has been funded to ensure repayment of the loan. The money could also be lent in instalments based on the progress reports as per the monitoring committee. Also Collateral free loan should be made available up to an amount of INR 25 Lakhs for Micro Enterprises under the Credit Guarantee Fund Trust for Micro and Small Enterprises.

- As observed in the Faridabad district in Haryana sub region, the Faridabad Small Industries Association (one of the most effective associations in northern India) has tied up with SIDBI. SIDBI provides loan to enterprises on the basis of recommendation from this association. Such a model could be encouraged in other parts of NCR too. For this, the DICs need to take an initiative and encourage the entrepreneurs to form an association as strong which could take up similar initiatives.
- The lead bank of the district or SIDBI in collaboration with the DIC may prepare project profiles of the viable clusters in the district and provide support to these clusters for their development. The lead bank/ SIDBI may also adopt one such MSME cluster.
- There are many schemes of the Government in various areas but the eligibility, awareness and lengthy nature of the process has led to very low enrolment. Awareness drives regarding these schemes should be arranged by the State periodically. The key institutions involved in the scheme should also participate in these drives and clarify the queries raised by the participating entrepreneurs regarding eligibility, documents required, benefits to be accrued, terms and conditions etc. A single window system would be preferable for imparting knowledge of schemes, clearances etc.
- It has also been observed that most government schemes are applicable to clusters that have been adopted by them for intervention. The purview of these should be extended to other potential clusters too.
- Where a scheme has been successful for a specific sector and may be applicable to the others (with minor changes), the concerned departments should take it up for the clusters under their purview. An example of this is the Mill Gate Price Scheme. In this scheme the weavers can procure cotton at mill prices. Similar schemes can be brought out for other natural resource based clusters.
- The micro enterprises are not able to produce large batch of products, products of high quality required in the export market, innovative products as there is lack of knowledge of advanced machines and technology. The Government has launched the National Manufacturing Competitiveness Programme (NMCP) with the objective of enhancing the competitiveness of MSMEs. The programme includes several new and innovative schemes (viz., Lean Manufacturing, Design Clinics, Quality Management Standards and Quality Technology Tools, Incubators, etc.) for assisting the MSMEs in adoption of best international practices to enhance their competitiveness. The micro enterprises have low awareness of such schemes moreover they do not participate in the schemes because they cannot afford to lose their daily income (most of the entrepreneurs are themselves involved in the manufacturing process). It is therefore recommended that the participants need to be provided some financial incentive which is equivalent to their opportunity cost.
- The traditional clusters need to be linked with various tourism circuits in and around their region so that there is direct interface with buyers. Display Centres should be initiated by the Ministry of Tourism/ State at strategic locations and exhibitions need to be organised here periodically, especially during tourist season. These display centres could be built on a PPP mode at strategic locations along the Delhi- Jaipur- Agra circuit; Delhi-Chandigarh- Shima-Kulu Manali circuit; Delhi- Dehradun-Mussoorie circuit, Delhi-Roorkee- Haridwar- Rishikesh circuit etc. The artisans should be encouraged to display in these centres and the exhibitions should be covered by the local and national media.

- An NCR portal may be set up with mention of all clusters. The profile of the cluster, the products made in this cluster, the material used and their target market should also be mentioned. A detailed catalogue of the products should be available in this portal along with information on locations where they are being sold. Online purchase of certain products could also be initiated.
- There are some dedicated micro enterprise clusters while others are linked with large players. It is required that partnerships are built with key industries and players so that there is a strong market linkage. The Government has taken a lot of measures in promoting outsourcing but it is required that the group of micro enterprises at the cluster level carry forward this business integration.
- Most of the enterprises have issues in terms of connectivity, water supply, power supply, sanitation etc. The State Government must consider the micro enterprises to be the priority for growth & development and accordingly allocate funds for planned infrastructure development.
- The new industrial parks/ areas developed by the States should have an area of about 40% of the available land allocated for development of micro enterprises.

6.2.3 Sector wise Recommendations

6.2.3.1 Handloom Clusters

- Majority of the handloom manufacturing enterprises discharge chemical effluents. A Common Effluent Treatment Plant is absent in most of these clusters. The Ministry of MSME may suggest that the State take up the setting up of CETPs in the respective clusters. Another solution could be that the state provides an incentive to the private developers to come up with a CETP on a PPP mode in these clusters.
- The main market of the handloom industry is the garment industry. However, it has been noticed that the garment industry is unaware of the potential source of raw material as they buy most of the material from dealers. Efforts should be taken by the Ministry of MSME to create awareness amongst the handloom manufacturers to market their goods to these stakeholders and the advantages of this should be brought out. Regular buyer-seller meets should be held so that the producers and buyers are able to understand each other's need in a better way.
- Most of the clusters in this sector face a major problem in procuring raw material at reasonable rates. The cost of interstate transportation is also high. The Ministry of MSME should suggest the state to set up raw material banks at a district level in the district head quarter to at major urban areas which can be easily accessible to these clusters OR the government should give licenses to some dealers as per strict eligibility criteria who would sell raw material at a subsidised cost.
- The main raw material for most of the handloom enterprises is raw cotton which they spin/ weave to produce textiles. However, the price of raw cotton has been increasing at a high rate. Purview of schemes like Mill Gate Price Schemes should be extended to cover these clusters as well, which will enable the entrepreneurs to obtain raw material at subsidised costs.

- Special courses and workshops in terms of design and technology specific for the handloom cluster needs to be designed by the Ministry of Textiles and Ministry of MSME. These should be conducted periodically major locations.
- Major growth centres could be identified in NCR. The artisans who are facing major issues in their present location may be encouraged to shift to these growth centres after providing them with the necessary infrastructure.
- The machinery/ technology being used are outdated. However most of these enterprises cannot afford the new technology/ machinery. This could be resolved by the government providing licenses to some dealers to give their machines on lease/ hire or common facility centres be set up for use by the micro enterprises on a rental basis. Schemes like Hire Purchase and leasing scheme by NSIC should be initiated at these clusters.

6.2.3.2 Wearing Apparel Clusters

- The garment industry is fed by the handloom sector. However, the garment industry generally procures the material from dealers in the vicinity instead of procuring from the source, which is also present in the vicinity. Efforts should be taken by the Ministry of MSME to create awareness amongst the garment manufacturers to procure the material directly. This would also be helpful in reducing the cost of the material. Regular buyer-seller meets should be held so that the producers and buyers are able to understand each other's need in a better way.
- The designs in this industry are of utmost importance which keeps changing with the market trends. A design centre should be initiated by the Ministry of MSME in collaboration with the state and DIC to set this up at the district headquarters of relevant districts or at least at major urban centres.
- The garment market has a huge potential, both nationally and internationally. Major markets should be identified and the enterprises should be made aware of these for the sale of their goods.
- In order to capture these markets, the quality of the garments should be tested periodically. Testing centres should be set up at district level with initiation from the state. The tactics of branding or working in partnership with major brands should be shared with these enterprises by the Ministry of MSME in association with NSIC/ NMCP.
- Special courses and workshops in terms of design and technology specific for the handloom cluster needs to be designed by the Ministry of MSME. These should be conducted periodically major locations.
- The machinery/ technology being used are outdated. However most of these enterprises cannot afford the new technology/ machinery. This could be resolved by the government providing licenses to some dealers to give their machines on lease/ hire or common facility centres be set up for use by the micro enterprises on a rental basis. Schemes like Hire Purchase and leasing scheme by NSIC could be introduced at these clusters.

6.2.3.3 Wood and Wood Products Clusters

- The main raw material for these clusters is cane and bamboo. Due to depletion in forest cover, the availability of raw material has decreased considerably and the prices have also increased accordingly. To overcome this issue:
 - Schemes similar to the Mill Gate Price Scheme for cotton could be initiated for this sector.
 - New and similar material should be explored which can be made use of for the same products.
 - Incentives by the state should be given for densification of the forest cover in the vicinity.
- Newer designs need to be explored by this cluster. The designs that they are currently using have become outdated. Design workshops could be held in these clusters to strengthen their product and come up with new products. This should be initiated by the Ministry of MSME in association with institutes like NID, NIESBUD etc.
- Most of the manufacturing work in these enterprises is manual. However the enterprises should be made aware of the new technology available for finishing purposes. This should be initiated by the Ministry of MSME in association with institutes like NIESBUD, ITI etc.
- These enterprises should be made aware of innovative product marketing skills such as Websites, product stalls, in exhibitions/trade fairs, etc. to be imparted to the entrepreneurs in order to increase the business potential of the cluster. The state with the DIC as the nodal agency could take this up with assistance from NSIC/ NMCP.

6.2.3.4 Leather & Non-Leather Clusters

- Enterprises are facing high cost of the primary raw material i.e. leather, and factors include price fluctuations, transportation costs & share of middlemen. It is proposed that a raw material bank be established for the purpose. Even non-leather material such as rubber, plastics may be made available for such accessories. Research on new and similar material to substitute leather could be initiated.
- Entrepreneurs need to be trained through Short Term or Long Term Courses on traditional footwear (e.g. *mojari*) and other leather accessories (especially on new designs & techniques). If they do not participate then awareness programmes need to be conducted to educate them of the benefits and a stipend needs to be given to attract the entrepreneurs and workers.
- There should be linkages with designers of leather and non-leather accessories who would be able to brief the entrepreneurs of the market demand in terms of styles/designs etc.
- Opportunities of direct sale to buyers should also be made possible by linking to tourist circuits, establishment of sales depot at neighbouring markets and/or participation at national and state level exhibitions/fairs. The cluster could be linked to tourist circuits as suggested in section 6.2.1.

6.2.3.5 Printing & Publishing Clusters

- Enterprises are facing the hassle of old and out-dated technology which prevents them from picking up large orders with time constraints. A common facility centre providing advanced machines on rental basis may be established to take care of their large orders. Schemes like Hire Purchase Scheme and Leasing Scheme by NSIC could be introduced at these clusters.
- Synergies need to be built between the Service Industry and this cluster so that there is no dearth of business. Interactions between the communities would help understanding the quality requirements of the market.

6.2.3.6 Light Engineering & Auto Component Clusters

- These enterprises are basically taking up vendor jobs with medium and large industries. It is required here that the entrepreneurs are able to match up with the quality measures of the large players. The MSME or State Government may help in setting up Central Facility Centres that would have a common testing laboratory, quality control centre etc.
- The scope for light engineering should be spread to other regions of NCR catering to agricultural sector (agricultural implements), defence, IT, general manufacturing sector and other large industries.

6.2.3.7 Natural Resource Based Industries (Brass, Pottery, Terracotta, Ceramics, Cane& Bamboo, Marble)

- As the enterprise is solely based on a natural resource and its craft we must ensure that that a raw material bank is established wherein all year availability is ensured and the prices are stabilised. Research on material to substitute the use of natural resources may be encouraged. R&D centres for this purpose may be set up at urban centres in NCR.
- The designs of such traditional crafts must be as per the market demand. Moreover the applicability of such resources to newer products depending on their characteristics as well as synergies with other materials such as plastics may also be explored with the help of MSME. This would not only increase the revenues of the artisans but also make it a more lucrative activity.
- These artisans must be linked to the tourist circuits (see section 6.2.1) and the international market (through websites, fairs etc.) with the help of the State Government. Quality control measures would also be required to ensure the durability of the product.

6.2.3.8 Paper Products and Packaging Cluster

- The paper products and packaging clusters are only present in Delhi whereas these should be promoted in the rest of NCR. Moreover the number of enterprises linked to these clusters is low while the demand in terms of retail and service industry is high. It is believed that a diagnostic report may be taken up for these clusters to understand further issues and constraints and barriers for development.
- Due to their target sector being the services and retail industry synergies may be built for partnership and development. The responsibility lies with the associations.

6.2.3.9 Miscellaneous Manufacturing Clusters

Furniture Clusters

- This industry off late is facing a major competition from the Chinese products. New products, raw material and designs should be explored and manufactured in order to beat this competition. The Ministry of MSME should take initiative in doing this in collaboration with institutes like NIESBUD etc.
- The enterprises are not able to afford the latest technology and machinery. The
 centre should provide the micro enterprises with machinery at a subsidised cost.
 Training to use these machines should also be given to the labourers.

Sports Goods Clusters

- The cluster at Meerut is one of its kinds in the NCR region. For achieving growth
 in this cluster, UNIDO has already taken an initiative and come up with a
 technology upgradation centre in this cluster.
- When Ministry of MSME undertook a diagnostic study of this cluster and suggested a few interventions, the entrepreneurs expressed that they were not interested in these interventions. The reason for this should be studied in detail. The NCRPB may commission a study for the same or the Ministry of MSME could look into this matter.
- The Chinese market may prove to be of competition to this cluster in the near future. The enterprises should be encouraged to attend workshops and courses on a regular interval and involve themselves in better marketing to avoid this. The state with the assistance of the DIC should take an initiative for this aspect.

Musical Instruments Cluster

- The Musical Instruments Cluster in Meerut is a unique cluster in the NCR region. There are a few enterprises scattered in some other parts of NCR but the cluster in Meerut is one of its kind. The State has taken an initiative and conducted a few workshops/ seminars in this cluster. However, there is a need for other initiatives.
- The main issue faced by this cluster is procuring raw material. The state should authorise a few dealers who would sell the material to these enterprises at a subsidised rate.

Artificial Ornaments Cluster

- Design inputs need to be provided to these clusters. The trends in the market keep on changing. Special courses and workshops in terms of design specific for this sector needs to be designed by the Ministry of MSME.
- Precious and Semi-precious stones are proving to be expensive in the present times. New and innovative material should be used which would also prove to be cost effective. R&D centres should be set up in Delhi or Meerut for research on this. The artisans should be made aware of the materials on a periodic basis.
- Most of the work in such clusters is manual. The importance of this should be marketed through innovative marketing skills such as Websites, product stalls, in exhibitions/trade fairs, etc.
- Display centres should be set up in major towns in NCR like Delhi, Gurgaon, Meerut etc where the products could be displayed and sold. The tourists could be encouraged to visit these. The Ministry of MSME and the Ministry of Tourism take up these initiatives.

6.2.3.10 Industrial Partnerships

During the discussion and analysis of the various clusters, it was inferred that each Cluster is related to a few other clusters. The clusters would function more efficiently if a stronger interdependence and partnership is formed between them. They may be dependent on other clusters for various reasons like raw material, technology and machinery, human resources etc. One cluster may also act as the main market for another. In the chart 6.1, we have tried to create a inter relationship matrix from the information we could gather during the study.

Figure 6.2: Inter-relationship Matrix

Figure 6.2: Inter-	Clatic	UliSili	ip ivia	UIA													
	Food Products	Textiles	Wearing Apparel	Leather	Wood & Wood Products	Paper & Paper Products	Publishing, Printing	Chemicals & Chemical Products	Rubber & Plastic Products	Other Non-Metallic Products	Basic Metals	Fabricated Metal Products	Machinery and Equipment	Electrical Machinery	Electronic Goods	ponents	rurniure and ouner miscellaneous
Food Products																	
Textiles																	
Wearing Apparel																	
Leather																	
Wood & Wood Products																	
Paper & Paper Products																	
Publishing, Printing																	
Chemicals & Chemical Products																	
Rubber & Plastic Products																	
Other Non- Metallic Products																	
Basic Metals																	
Fabricated Metal Products																	
Machinery and Equipment																	
Electrical Machinery																	
Electronic Goods Auto Components																	
Furniture																	

Source: Findings of the study **Legend**

Sectoral relationship present Sectoral relationship absent

It can be inferred from the above analysis that while all the clusters are dependent in some way on the machinery and equipment cluster and electrical machinery cluster, a few clusters also have specific dependencies on others. An example of this could be the readymade apparel cluster which is dependent on the handloom cluster for raw material, while the readymade apparel cluster acts as the main market for the handloom cluster. Hence if interdependency can be established between the two in terms of a supply chain linkage by a

few interventions by the Ministry or the State it would be profitable to both the clusters and would aid in their growth and development.

6.2.4 Sub Region wise Recommendations

6.2.4.1 Delhi

- The Industries Department of NCT of Delhi is unaware of the micro manufacturing clusters that are present in the city. The Ministry of MSME and the MSME DI are aware and are undertaking cluster development in a few clusters in Delhi; however these are limited to clusters in industrial areas. They are also unaware of the other informal clusters present in here. Due to this they are unable to create awareness on various aspects. The clusters are also suffering due to this as they are unable to register themselves as SHGs or avail the various schemes floated by them. A nodal agency either needs to be created with a Cluster Development Executive or the Industries department should actively take up the development of these clusters.
- Earlier there were a number of government authorities like DDA, MCD etc with overlapping jurisdictions in terms of both area and function however, currently as per the law of NCT of Delhi, DSIIDC is responsible for the management, operation and maintenance of enterprises.
- Favourable policies/ incentives need to be formulated by the state/ centre (MoMSME) in order to retain the household industrial units within Delhi. A number of these are shifting their base to various parts of NCR, even though the infrastructure available in Delhi is much better. An example being the Zari cluster in Zakir Nagar and the Handloom Cluster in Sunder Nagari/ Nand Nagari.

6.2.4.2 Uttar Pradesh sub region

- There is no or negligible supply of electricity to most of the clusters in Uttar Pradesh sub region. The areas which have been classified as census towns are still getting supply as per the norms for villages, i.e., around 6-8 hours of supply in a day. Thus, the small household units are currently functioning in inhuman conditions. In such a case, the micro enterprises that have a great scope for expansion are unable to do so as they cannot employ new and better technology. Another consequence could be that the artisans slowly shift to areas providing better opportunities to expand. This could adversely affect the growth of industries in Uttar Pradesh sub region leading to lesser employment generation in this region. The Ministry of Medium, Small and Micro Enterprises/ NCRPB should suggest the state government to instruct the respective local authority to provide electricity as per norms. They should also instruct them to have a fixed timing for power cuts.
- Most roads leading from Delhi to the various districts of Uttar Pradesh sub region that come under the NCR are in a poor shape. As a result of this the finished goods that are transported from Uttar Pradesh sub region to Delhi at times are compromised in case of clusters like the ceramic cluster. This also leads to a lesser scope of market development and higher overhead costs of transportation. The concerned authority should be instructed by the state to repair these roads.

- Training institutes and skill development centres should be built in all the district headquarters or major urban areas apart from NOIDA which would impart short term/ long term courses to various artisans and entrepreneurs, like ITI in Delhi.
- Uttar Pradesh sub region has a number of handloom clusters whose major constraint is the procurement of raw material at reasonable cost. The Ministry of MSME could initiate a common raw material bank in the districts that have a majority of these clusters. NCRPB may commission a feasibility study for the same.
- Uttar Pradesh sub region should take up branding their indigenous products and advertising them on national television, radio and major magazines which would increase the market value of the clusters in their region. This would also attract the major players and bigger brands.

6.2.4.3 Haryana sub region

- Development initiatives should be taken for the upcoming potential new activities in these areas. Mewat district shows a potential for development of the Diary and Dairy Products industry. Similarly, Palwal district has a high potential for terracotta, products of bamboo and cane etc. The state should take interest and frame favourable strategies for growth of potential industries in these areas.
- The State Government of Haryana has a tendency to support the medium and large scale industries which give them higher returns than the micro and small scale industries. This is evident from the state of the micro and household enterprises. However, it is these industries that sustain the functioning of the tier 1& tier 2 industries. The nodal authority of the district is unaware of the micro manufacturing clusters present within their districts. An initiative should be taken by the state to list the micro and household enterprise clusters in their state and create a database. They should also instruct the DICs to take initiatives to instigate their growth.
- A consequence of point 2 is that the phenomenon of SHG formation has not been observed in Haryana sub region as against Rajasthan sub region and Uttar Pradesh sub region, the reason being lack of awareness generation. Due to this the micro industries face a major constraint in availing various schemes floated by the centre. The DICs should take an initiative under the instructions of the state to create an awareness regarding this amongst the micro and household enterprises.
- Training institutes and skill development centres should be built in all the district headquarters or major urban areas apart from Gurgaon and Faridabad which would impart short term/ long term courses to various artisans and entrepreneurs, like ITI in Delhi.
- Most roads leading from Delhi to the various districts of Haryana sub region that come under the NCR are in a poor shape. As a result of this greater damage has been noticed in transportation of goods and greater overhead expenses. This also leads to a lesser scope of market development. The concerned authority should be instructed by the state to repair these roads.

6.2.4.4 Rajasthan sub region

- Alwar is a large district and is close to Delhi and Gurgaon. Moreover it lies on the Delhi Mumbai Industrial Corridor. It has potential for further industrialisation. The State Government / DICs also seem quite active in the growth and development of the clusters. But even then the artisanal clusters are groping for a good livelihood. It is necessary that innovations and value addition be recommended for these clusters so that their income levels improve and the activity flourishes. Moreover Rajasthan sub region must develop engineering based clusters as well due to the advantages of transportation and logistics.
- Infrastructure in terms of power supply need to be immediately attended to by the State Government or else the growth and development would be slow.
- The clusters need to be included in the tourist circuits to gain visibility.

7 Economic Benefits

7.1 Turnover and Employment Generation

7.1.1 Assumptions and basis of estimations

- The micro enterprises study has been undertaken at a macro level wherein 48 clusters and 2500 units within the same were visited across sectors/activities. Based on data as received from these 2500 units on employment and turnover, the macro level average figures for turnover and employment have been estimated for the cluster level. These have been the basis of estimates for district level turnover and employment for the current year. The extrapolation of the data could be done only for the registered enterprises based on the data received from the DICs. The unregistered enterprises could not be included due to lack of data on the total numbers (as already highlighted earlier in Section 1.8). Based on the current estimates, projections have been made for five year intervals (2015, 2020) for turnover, number of micro enterprises and employment generated which are illustrated in Table 5.4.
- As discussed in the earlier point, the recommendations of the Prime Ministers Task Force report for MSME (refer *Appendix I*) have been considered for the growth of MSME sector. The Task Force suggested that a growth of 14% could be achieved on implementation of the action points as suggested by the Task Force (our action points and recommendations are in line with this Task Force report). Hence, we can assume that on implementation of the Action Plans suggested at various levels by the Centre, State and NCRPB, a growth of 14% per annum could be achieved over the next 10 years by the MSME sector.
- We have calculated year-wise growth in turnover as elaborated in Table 5.4. The basic assumption for growth is that the actions suggested are implemented. The basis for calculation has been described below:
 - It has been assumed that the interventions are initiated immediately. Thus an accelerated growth trend is seen in the initial years (till 2015).
 - After 2016, the growth is seen to stabilise assuming the initial implementation is complete and these are being followed up at regular intervals.

Table 7.1: Growth Trends

Year	Assumed Rate of Growth in Turnover (%)
2011	2
2012	5
2013	5
2014	5
2015	10
2016	10
2017	10
2018	12
2019	12
2020	14
Source: Findings of the Study	

7.1.2 Projections

- Based on the turnover, total employment generated and number of micro enterprises has also been estimated. Table 5.5 gives these projections at five year intervals, i.e., 2015 and 2020.
- We have anticipated growth in sector however; the ratio of numbers of enterprises to turnover has been considered the same as existing.
- For calculating the employment generation, average number of workers per unit in each district has been considered based on the analysis of primary survey data and the Fourth All India Census for MSME 2006-07.

Table 7.2: Turnover, employment and number of micro enterprises - Projections for 2015 and 2020

		Ма	o. of Mici nufacturi rprises (f	ing		nated Turi R in Cror		Employment (in Nos.)			
SI. No	District	2010	2015	2020	2010	2015	2020	2010	2015	2020	
1	Bulandshahr	2768	3562	6163	55	71	124	12000	13200	15048	
2	Baghpat	1366	1758	3042	43	56	97	4500	4950	5643	
3	Gautambudh Nagar	3859	4966	8592	200	260	449	30000	33000	37620	
4	Meerut	4527	5825	10080	150	195	337	18000	19800	22572	
5	Ghaziabad	4184	5384	9316	143	186	321	17000	18700	21318	
6	Mewat	1619	2083	3605	68	88	153	5300	5830	6646	
7	Palwal	160	206	356	4	5	9	400	440	502	
8	Faridabad	2216	2852	4934	400	520	899	48000	52800	60192	
9	Rewari	1041	1340	2318	17	22	38	2700	2970	3386	
10	Rohtak	1114	1434	2480	67	87	151	6400	7040	8026	
11	Panipat	3496	4499	7784	175	227	393	33000	36300	41382	
12	Sonipat	1515	1950	3373	111	144	249	13000	14300	16302	
13	Jhajjar	1042	1341	2320	91	118	205	12000	13200	15048	
14	Gurgaon	1014	1305	2258	370	481	832	14000	15400	17556	
15	Alwar	2579	3319	5742	52	68	117	7600	8360	9530	
16	Delhi	526	677	1171	11	14	25	2600	2860	3260	
	TOTAL	33026	42498	73535	1957	2153	2454	226500	249150	284031	

Source: Findings of the Study

7.2 Contribution to Gross District Domestic Product

7.2.1 Assumptions

- The DDP for each district in 2010 was calculated using the formula:
 - Per Capita SDP (of the state) X Population of the district

■ The latest DDP data was not available. Hence, DDP of the districts of NCR have been assumed to grow as per the average growth rate of the SDP of the respective state; i.e., The SDP of districts in UP will grow at an average of 7% per annum, SDP of the districts in Haryana sub region will grow at an average of 9.7% per annum while Rajasthan's SDP would grow at a rate of 6.9% per annum. Delhi would see a growth in the SDP at the rate of 10% per annum. Based on this DDP of each district has been calculated for 2015 and 2020.

7.2.2 Contribution

Based on the district DDPs thus calculated, the contribution of the micro enterprises has been calculated and illustrated in Table below:

Table 7.3: Contribution

NCR Participating Districts	Estimated Turnover (in INR crores)			District D	omestic Pro	oduct	% contribution of micro manufacturing to district GDP			
	2010	2015	2020	2010	2015	2020	2010	2015	2020	
Bulandshahr	55	68	115	6739	9473	13315	0.82	0.75	0.93	
Baghpat	43	53	90	2693	3785	5320	1.60	1.48	1.82	
Gautambudh Nagar	200	245	417	2781	3909	5494	7.19	6.65	8.18	
Meerut	150	184	313	6933	9746	13701	2.16	2.00	2.46	
Ghaziabad	143	176	298	7612	10700	15041	1.88	1.74	2.14	
Faridabad+ Palwal	404	496	842	17289	27519	43803	2.34	1.89	2.05	
Rewari	17	21	35	6030	9597	15276	0.28	0.23	0.25	
Rohtak	67	82	140	7406	11789	18765	0.90	0.74	0.80	
Panipat	175	215	365	7622	12131	19310	2.30	1.87	2.04	
Sonipat	111	136	231	10077	16040	25532	1.10	0.90	0.98	
Jhajjar	91	112	190	6933	11036	17566	1.31	1.07	1.16	
Gurgaon+ Mewat	438	538	913	13080	20819	33139	3.35	2.31	2.51	
Alwar	52	64	108	10231	14274	19913	0.51	0.47	0.59	
Delhi	11	14	23	258000	426505	705064	0.00	0.00	0.00	

Source: Findings of the Study

NOTE: These projections have been made only for the enterprises registered with the DICs from 2006-07 to 2009-2010; i.e., those enterprises which have obtained EM-II. The actual numbers of enterprises, employment generated and turnover would be much higher considering the unregistered segment has been excluded from the calculation due to absence of data as specified earlier in Section 1.8. Thus the contribution of this sector to the district DDPs would be higher than that estimated.

In some cases, we find the contribution of the turnover to the DDP going down over the previous year- this may be primarily due to the fact that the DDP growth and overall absolute figures are higher than when compared to the growth rate of turnover and its absolute figures.

Appendices

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Appendix A. Terms of Reference

The scope of work as per our Contract is as follows:	Chapter No.	Section No.	Page No.
Literature survey, identification of	Volume I, Appendix A	-	82
sources of data, collection of data		1.6.2.2,	
and compilation of database (from	Volume I, Chapter I	1.6.2.3,	5-8
secondary sources), primary		1.6.2.4	
survey of about 2500 enterprises	Volume I, Chapter 4	4.5	38
(including handloom and handicraft			
units) for spatially distributed			
stratified multi-stage sampling in			
NCR should be conducted to			
gather information about			
unregistered units in this sector.			
Inventory of types / specialization	Volume I, Chapter 3	Entire	18
of micro & household enterprises		Chapter	
engaged in production of goods,			
for example, handicraft, handloom,			
agro-processing, agri-business etc.			
with regional / local specializations in NCR.			
	Volume I Chapter 4	4.2	36
Identification of important micro & household enterprise clusters in	Volume I, Chapter 4 Volume II	At the end of	Multiple
NCR, SWOT analysis, identifying	volume ii	every cluster	iviuitipie
their comparative advantage,	Volume I, Chapter 5	report	
identifying factors contributing to	Volume i, Onapter 5	5.4	45
the competitiveness of industry		0.4	10
clusters; building up partnerships	Volume I, Chapter 5		
for development opportunities in	Tolamo i, onapioi o		
key industries and players;	Volume II Cluster Action Plan	5.9.10	
prioritizing the infrastructure			
investment needed to improve the			
business environment; and			
strategizing development of			
targeted sectors, thus generating			
employment opportunities.			
Location / area of concentrations	Appendix G		109
within NCR (both urban and rural	, appointed		
to be shown on map)			
Estimation of number of	Volume I, Chapter 3	Entire	
enterprises of each type	1.13o ., 2.1.apto. 0	Chapter	
Number of workers employed	Volume I, Chapter 3	Entire	
	, , , , , , , , , , , , , , , , , , , ,	Chapter	
Sources of inputs / raw materials	Volume I, Chapter 3	Entire	
'	, '	Chapter	
Estimated turnover and growth	Volume I, Chapter 3	Entire	
trends	, , , , , , , , , , , , , , , , , , , ,	Chapter	
Issues and constraints in spatial	Volume I, Chapter 5	5.4	45
spread and growth of micro &			
household enterprises in NCR.			
Trends for future growth and	Volume I, Chapter 5	5.6	54

The scope of work as per our Contract is as follows:	Chapter No.	Section No.	Page No.
development including potential for new types of micro & household enterprises			
Infrastructure required for growth of this sector – aspects related to design improvement, skill up gradation and marketing of produce, export potential interlinkage with tourism in NCR etc.	Volume I, Chapter 5 Volume II Cluster Action Plan	5.8 Entire chapter	56
Identification of projects that could be taken up with NCR assistance of this sector – such as development of specialized market, common facility centres, testing and quality control centres, training institutes, industrial parks, growth centres, incubators etc.	Volume I, Chapter 5	5.8	56
Preparation of plan of action and areas for state intervention to provide special incentives / support estimation of number of jobs to be created through the Action Plan and contribution towards GDP district wise.	Volume II Volume I Chapter 6	Cluster Action Plan 6.2	61
Conducting a workshop (about 100 participants) with the participating States and concerned stakeholders before finalizing the report.	Workshop was organised on 8 th May 2015	-	-

Appendix B. Bibliography

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- 34. A Diagnostic Study Of The Handloom Weaving Cluster Of Gwalior Madhya Pradesh, Entrepreneurship Development Institute of India
- 35. Soft Interventions E P R on Light Engineering Industries Cluster Faridabad
- 36. A Diagnostic Study Of The Readymade Garments Cluster Of Okhla
- 37. Diagnostic study of Khurja pottery cluster
- 38. Diagnostic Study of Home Made- Ups Cluster, Panipat

Study on Micro & Household Enterprise in NCR

- 39. Diagnosis Study Of Morbi-Wankaner Ceramic Cluster Report
- 40. Diagnostic Studyjean Manufacturing Cluster, Bellary
- 41. Diagnostic study foundry cluster Samalkha
- 42. Diagnostic Study of The Textile Hand Printing Cluster Jaipur, Rajasthan
- 43. Diagnostic Study of Handloom Cluster, Barabanki

Appendix C. Proforma for Collection of Information & Questionnaires

C.1 Information/ Data of registered Micro enterprises with Directorate of Industry/DIC or Other Department/Agency

Nam	Name	Activit	Activity	Total	Total	Activity	Total	Total
e of	of the	у	Wise	Investme	Employme	Wise	Investme	Employme
the	Distri	Code	Nos. of	nt of (4)	nt of (4)	Nos. of	nt of (7)	nt of (7)
state	ct		registered			registered		
			Micro			Micro		
			Enterpris			Enterprises		
			es up to			up to		
			31.03.200			1.04.2006		
			6			to31.03.20		
			(approx)			10 (approx)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

C.2 Information/ Data of registered Micro enterprises with Directorate of Industry/DIC or Other Department/Agency

Nam	Name	Activit	Activity	Total	Total	Activity	Total	Total
e of	of the	у	Wise Nos.	Investme	Employme	Wise	Investme	Employme
the	Distri	Code	of	nt of (4)	nt of (4)	Nos. of	nt of (7)	nt of (7)
state	ct		unregister			unregistere		
			ed Micro			d Micro		
			Enterprise			Enterprises		
			s up to			up to		
			31.03.200			1.04.2006		
			6 (approx)			to31.03.20		
						10 (approx)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

C.3 Information of Natural Industrial Clusters in the District

S.No	Name	location of		Specific	Type of	Total Nos. of	Total Nos.	Name and
	of the	the Cluster		product(s	Manufacturin	registered	of	Address of
	Distric	(Name of)	g Item(s)	Micro	un-	the
	t	the area)				Enterprises	registered	Industrial
						up to	Micro	Associatio
						to31.03.201	Enterprise	n working
						0	s up to	in the
							31.03.201	cluster
							0	
		Urba	Rura					
		n	1					

C.4 Information of Artificial Industrial Clusters in the District

S.N o.	Nam e of the Distri ct	Locati the Cl (Nam the are	uster e of ea)	Sponsor ed/ Develope d by (Central Govt/ State Govt/ Other agency)	Specific product(s)	Type of Manufacturi ng Item(s)	Total Nos. of registered Micro Enterprise s up to to31.03.20	Total Nos. of un- registere d Micro Enterpris es up to 31.03.20 10	Name and Address of the Industrial Associati on working in the cluster
		Urba n	Rur al						

Appendix D. Comprehensive Source List

			Position to be	Data A	ata Availability of Enterprises						Remarks			
		_	contacted				Cluster	evel data					Ŧ	
	Location	Study Related Ministry/ Department		All India	State Wise	District Wise	Name and Location	Type (Artificial/ Natural)	Employment	Investment	Turnover	Registered Micro/ HH Enterprises	Un-Registered Micro/ HH Enterprises	
CENTRALI SED DEPARTM ENTS	Delhi	Coir Board	Shri. Rameshwar Goel, Vice Chairman	NO MA	NUFAC	CTURING	G UNITS O	F SILK IN E	DELHI NC	R REGI	ON			Redirected to Mr. Shukla (PRO, Coir Board) or Mr. Shesh Kumar (Jt. Sec, Mo Textiles, In charge Coir) in that order of preference
			Mr. J K Shukla, Public Relations Officer											No. clusters / manufacturing units in Delhi or NCR region. All coir related manufacturing is concentrated towards the south. Only sales depots in the north.
			Mr. Shesh Kumar, Joint Secretary, Ministry of Textiles, Incharge for Coir Board											As information was received from the PRO, Coir Board, this contact need not be pursued.
	Delhi	Central Silk	Mr. R D Singh, Director	NO MA	NUFAC	CTURING	UNITS O	F SILK IN D	ELHI NC	R REGI	ON			Redirected to Mr. Sinha
		Board	Mr. Sinha											There are no silk manufacturing industries in Delhi/ NCR as they have no profit margin in Delhi. The only micro/ HH enterprises is

		Position to be	Data	Data Availability of Enterprises							Remarks			
		contacted				Cluster	level data					I		
Location	Study Related Ministry/ Department		All India	State Wise	District Wise	Name and Location	Type (Artificial/ Natural)	Employment	Investment	Turnover	Registered Micro/ HH Enterprises	Un-Registered Micro/ HH	Enterprises	
														found in value addition activities, i.e., zari work, embroidery etc. The lists of these will be found with DC Handicrafts and Handlooms. Any unit that is set up in a place registers with the state sericulture department/directorate of sericulture.
Delhi	DC, Handic rafts	A K Handoo Regional Director (North Region)	N	Y (Delhi and Hary ana)	N	Y	N	Y	N		N	N	N	There are no textile/ handloom related clusters in Delhi/ NCR due to lack of weavers. There is only 1 in Delhi that has been recently initiated. The information has been provided by them. However, they did not provide any information on micro and HH enterprises in Delhi and redirected to Ministry of MSME.
Delhi	DC, Handlo om			Delhi State										Details of 1 cluster, in Delhi State sponsored by textile ministry
NOIDA	Textile Commi ssioner (Regio nal Office)	Mr. R A Lal	N	N	N	N	N	N	N	1	N	N	N	Did not have any information on registered Micro/ HH enterprises. Gave a few contacts of Industrial Associations.
Delhi	Nation	Asst. Director	Υ	Υ	N	N	N	N	N	١	N	N	N	All the data is in a directory.

			Position to be	Data	Availabil	ity of En	terprises							Remarks
			contacted				Cluster	level data				Ξ		
	Location	Study Related Ministry/ Department		All India	State Wise	District Wise	Name and Location	Type (Artificial/ Natural)	Employment	Investment Turnover	Registered Micro/ HH	Un-Registered Micro/ HH	Enterprises	
		al Jute Board												However, the directory was printed in 2006
	Delhi	O/o DC MSME	Mr. Vinod Kumar, Deputy Director (Cluster Development)	N	N	N	Y	Y	Y	Y	Y	N	Z	A comprehensive list of all clusters inititatives taken in India have been listed on their site (www.dcmsme.gov.in). For further information one should contact the implementing agencies.
			Mr. Sanjeev Chawla, Deputy Director (Cluster Development)	N	N	N	Y	Y	Y	Y	Y	N	N	A comprehensive list of all clusters initiatives taken in India have been listed on their site (www.dcmsme.gov.in). For further information one should contact the implementing agencies.
NGOs, Institutes and Other	Delhi	MSME Found ation	Mr. Amar Singh	N	N	N	Υ	Υ	М	М	М	N	N	Visited. Has given relevant information available with him.
Organisatio ns	Delhi	UNIDO	Ms. Shipra Biswas	N	N	N	Υ	Y	Y	Y	Y	N	N	Had a telephonic discussion. Said that all relevant information is available on the internet and with the DC MSME.
	Hyderab ad	NI- MSME	Mr. Suryaprakash Gaud	N	N	N	Y	Y	Y	Y	Y	N	N	Had a telephonic discussion. Said that all relevant information is available on the website www.nisiet- clusters.org.

			Position to be	Data	Availabi	lity of Er	nterprises								Remarks
			contacted				Cluster	level data					I		
	Location	Study Related Ministry/ Department		All India	State Wise	District Wise	Name and Location	Type (Artificial/ Natural)	Employment	Investment	Turnover	Registered Micro/ HH Enterprises	Un-Registered Micro/ HH	Enterprises	
DELHI	Delhi	KVIC	State Office, KVIC	N	Y	Y	М	M	M	М		M	N	N	As information was collected from various KVIB offices and secondary sources this contact need not be pursued.
	Delhi	Khadi and Village Industri es Board	R K Gupta, Deputy Director	N	Y	N	N	N	N	N		N	N	N	Visited. Data Received.
	Delhi	Depart ment of Industri es	Mr. Chetan Sanghi, Commissioner & Secretary Industries	N	Υ	Y	Y	Y	Y	Y		Y	N	N	Visited. Met with Mr. Vishwamohan. (Addl. Commissioner, MSME.) Follow up required.
	Delhi	MSME-DI, Field Office (Delhi, Farida bad, Ghazia bad, Gurgao n)	Mr. G S Bhatia	N	Z	Y	Y	Y	Υ	Y		~	N	N	Contacted on telecon. Has given information on clusters under his purview.

Appendix E. Data from DIC

Appendix F. Compendium of Clusters

UTTAR PRADESH								
District	Name	Location of the Cluster (Name of the Block/ Village/ Town),No. of Units	Type of Manufacturing Item(s)	Source				
	Zari/ Embroidery Cluster	Bulandshahr,400-500 units Sikandarabad,300-350 units Jahangirabad, 600-700 units Khurja, 400-500 units	Dress material, Bags, Shawls, Scarves	DIC				
	Under Garments Cluster (Cotton)	Shikarpur, Distt. Bulandshahr,250-300 HH units	Female undergarments	DIC				
	Pottery and Ceramic Cluster,	Khurja, Distt Bulandshahr,492 units	Cups, Saucer, Plates, Flower Pots, Decorative Items, Insulators etc.	dcmsme.gov.in, DIC, MSME Foundation				
BULANDSHAHR	Wood Accessories and Wood Carving	Khurja, Distt Bulandshahr	Furniture's and Fixtures	nisiet-cluster.org (artisanal), MSME Foundation				
	Papier Mache	Bulandshahr	Toys, baskets, trays, birds and animal figures, caricatures, bullock cart, figures like elephant, horse, grain storage bin, bucket, etc.	nisiet-cluster.org (artisanal), MSME Foundation				
	Jute/hemp Rope and cordage	Bulandshahr	Ropes and cords	nisiet-cluster.org (artisanal), MSME Foundation				
	Woollen carpets by hand	Bulandshahr	Woollen carpets	nisiet-cluster.org (artisanal), MSME Foundation				
	Earthenware & Pottery	Bulandshahr	Red and Black Pottery, Decorative Pots, Animal and Birds	nisiet-cluster.org (artisanal), MSME Foundation				

UTTAR PRADES	SH			
District	Name	Location of the Cluster (Name of the Block/ Village/ Town),No. of Units	Type of Manufacturing Item(s)	Source
	Metalware	Khurja, Distt Bulandshahr	Metalware	nisiet-cluster.org, MSME Foundation
	Lead based articles	Bulandshahr	Lead based articles	nisiet-cluster.org, MSME Foundation
	Handloom Cluster	Khekada Village, Distt. Bagpat, 600-700 units	Bedsheets, Bed Covers, Pillow covers, Towels etc	DIC
BAGHPAT	Agriculture Implements Cluster	Baraut Village, Distt Baghpat, 400-500 units	Axles, Rim for tyres etc for Animal Driven Vehicles	DIC
	Blanket cluster	Nirpuda Village, Banouli Block, Distt. Baghpat-100 HH units	Woollen Blankets	DIC
	Modha(Cane and Bamboo products cluster)	Gadh Mukteshwar, Distt. Ghaziabad, 500 units	Modha, Canse Chairs, Tables etc.	DIC
GHAZIABAD	Hand printed textiles Cluster	Pilakhua, Tehsil Akhun, Distt. Ghaziabad,200-250 units	Home furnishings, lihafs (quilt covers), farads (quilted coat cloth), table cover, bed cover, jajams (floor covering), dress materials, Sarees, pillow covers, cushion covers etc., chadar, lungi, dasta	source: nisiet.org, artisanal; MSME Foundation, DIC
GHAZIADAD	Block making cluster	Pilakhua, Tehsil Akhun, Distt. Ghaziabad	Blocks for printing in various sizes and designs, utility and decorative boxes	source: nisiet.org, artisanal; MSME Foundation, DIC
	Mechanical Engineering and Machinery products	Sahibabad, Distt. Ghaziabad,300-400 units	Engineering products like, automobile parts, electronic goods etc.	dcmsme.gov.in
	Chemicals	Distt. Ghaziabad,100-500 units	Basic Chemicals and Chemical Products	nisiet-cluster.org (artisanal), MSME Foundation

UTTAR PRADI	ESH			
District	Name	Location of the Cluster (Name of the Block/ Village/ Town),No. of Units	Type of Manufacturing Item(s)	Source
	Bone Accessories	Loni, Ghaziabad,200-250 units	Jewellery, ornate table lamps, chess-sets, cigarette holders, napkin rings, salt and pepper sets and laughing Buddha, table lamps, chess sets, animal figures, decorative plaques, bridges.	DIC, nisiet-cluster.org, MSME Foundation
	Packaging Material (Plastic) Cluster	Tronica City Near Loni, Ghaziabad,150 units	Rubber, Plastic, Petroleum, Coal Products	DIC, nisiet-cluster.org, MSME Foundation
	Earthen & plaster statues	Ghaziabad	Earthen & plaster statues	MSME Foundation
	Embroidery by hand	Ghaziabad	Embroidery by hand	MSME Foundation
	Wood Work	Ghaziabad	Furnitures and Fixtures	MSME Foundation
	Jute/ hemp Rope and Cord age	Ghaziabad	Jute/ hemp Rope and Cord age	MSME Foundation
	Durries (Cotton/ Jute/Hemp)	Ghaziabad	Cotton/jute/hemp -large durries for decoration of large halls, lobbies, stair cases, up to about eighty feet in length and twenty five feet width; durrie as a saddle cloth or animal cover; large grain	MSME Foundation
			Woollen - smaller room durries, jainamaz (prayer	
	Woolen Carpets by hand	Ghaziabad	mat)	MSME Foundation
MEERUT	Sports Goods products	SK Road, Phoolbagh Colony, Victoria Park, Lal Kurti,350 units	Inflatable balls, hockey sticks, hockey balls,	dcmsme.gov.in, DIC, MSME Foundation

UTTAR PRADI	UTTAR PRADESH								
District	Name	Location of the Cluster (Name of the Block/ Village/ Town),No. of Units	Type of Manufacturing Item(s)	Source					
			cricket bats and balls, boxing equipment, fishing equipment and different kinds of protective equipment						
	Artificial Ornaments Cluster Band Baja Cluster	Neel Goli, Sarafa Bazar, Kagzi Bazar, Ghanta ghar, Kabaoli Bazar,4488 units Jolly Kothi, Patel Nagar, Kesar Gunj, Khair Nagar, Ahmed Nagar,430 units	Artificial Jewellery Brass Band, Manjira, Dhol, Jhunjhuna, Flute, Harmonium, Drum, Shehnai, Clarinet etc.	dcmsme.gov.in, DIC, MSME Foundation dcmsme.gov.in, DIC, MSME Foundation					
	Powerloom/ Embroidery Cluster	Shahpir gate, Islamabad, Ahmed Nagar, Karim Nagar, Kidwai Nagar, Khair Nagar, Shahajanpur.,3000 units	Embroidery	dcmsme.gov.in, DIC, MSME Foundation					
	Scissors Cluster	Peeramal Bazar, Kanch ka pool, Khair Nagar, Karim Nagar, Kotla, Karimwala,400 units	8" to 18" copper and silver scissors.	dcmsme.gov.in, DIC, MSME Foundation					
	Auto Components (Mechanical and Electrical)	Garh road, Delhi road. Partapur ind. Area, Mohkampur ind: Area, Partapur Ind, 4600-4700 units	auto rubber parts, auto brakes, auto engine spare parts, nuts and bolts, spring pills etc.	MSME Foundation					
	Handloom	Mawana, Falwara villages, sardhana,2500 units	Dhoti, dress material, saree, towel, mat (chatai) and blanket etc	MSME Foundation					

UTTAR PRADES	UTTAR PRADESH									
District	Name	Location of the Cluster (Name of the Block/ Village/ Town),No. of Units	Type of Manufacturing Item(s)	Source						
	Mini Gas Cylinders	Hapur Rd, Karim Nagar, Zakeer Colony, Khair Nagar, 150-160 units	Mini Gas Cylinders	MSME Foundation						
	Rubber Products	Partapur Industrial Area,120-130 units	Tyres/ Tubes And Sports Goods Product	MSME Foundation						
	Transformers and voltage regulators	Victoria Park, Mohkampur, Rithani, Partapur Ind. Area, Sarswati Vihar,90- 100 units	Transformers and voltage regulators	MSME Foundation						
	Glass and Wooden Beads Cluster	Mundali, Nangali, Harra, Piplikhera, Pachpera,3000 units	Jewellery Pots for storing water,	MSME Foundation						
	Metalware	Mainpuram, Meerut	water filters, plates, planters, containers to keep articles for worship etc. gagar, tolla, parat, thal, kalash, ritual items, animal/human forms	nisiet-cluster.org (artisanal), MSME Foundation						
	Artistic chappals by hand	Meerut	Artistic chappals by hand	nisiet-cluster.org (artisanal), MSME Foundation						
	Containers	Meerut	Containers	nisiet-cluster.org (artisanal), MSME Foundation						
	Earthen & plaster statues	Meerut	Hookas, surahis, vessels, flower vase, crockery, industrial ceramics	nisiet-cluster.org (artisanal), MSME Foundation						
	Wood work	Meerut	Furniture and Fixtures	nisiet-cluster.org (artisanal), MSME Foundation						
	Jute/hump Tope and cordage	Meerut	Jute/hump Tope and cordage	nisiet-cluster.org (artisanal), MSME Foundation						

UTTAR PRADESH									
District	Name	Location of the Cluster (Name of the Block/ Village/ Town),No. of Units	Type of Manufacturing Item(s)	Source					
	Metal Jewellery	Meerut	Bangles, necklaces, rings, ear studs, ear rings	nisiet-cluster.org (artisanal), MSME Foundation					
	Zari and Related Items	Meerut	Zari and Related Items	nisiet-cluster.org (artisanal), MSME Foundation					
	Wrought Iron Accessories	Meerut	Door handles, furniture accessories, candle stands, lamps, bells etc.	nisiet-cluster.org (artisanal), MSME Foundation					
	Carpets Clusters Readymade Garments & Home Furnishers*	Gautambudhnagar, 103 artisans Hosiery complex, Ph- II Noida/ G B Nagar,3000 units	Durries and Rugs Readymade Garments, Home Furnishings Plastic Items	craftclustersofindia.in dcmsme.gov.in, MSME Foundation dcmsme.gov.in, MSME Foundation					
	Plastic Toys Cluster* Electronic Goods*	NOIDA	Machinery and Equipment other than transportation	nisiet-cluster.org, MSME Foundation					
GAUTAMBUDH NAGAR	Chemicals*	NOIDA,100-500 units	Basic Chemicals and Chemical Products	nisiet-cluster.org, MSME Foundation					
	Electrical Engineering Equipment*	NOIDA,100-500 units	Machinery and Equipment other than transportation	nisiet-cluster.org, MSME Foundation					
	Garments*	NOIDA,100-500 units	Ready made wearing apparel	nisiet-cluster.org, MSME Foundation					
	Mechanical engineering Equipment*	NOIDA,100-500 units	Machinery and Equipment other than transportation	nisiet-cluster.org, MSME Foundation					
	Packaging Material*	NOIDA,100-500 units	Rubber, Plastic, Petroleum and Coal Products	nisiet-cluster.org, MSME Foundation					
	Leather Products*	NOIDA,41 units	Leather Products	nisiet-cluster.org, MSME Foundation					

HARYANA SUB REGION									
District	Name	Location of the Cluster (Name of the Block/Village/Town)	Type of Manufacturing Item(s)	Source					
	Cane and Bamboo Cluster	Farrukh Nagar, Gurgaon	Murah, Chairs and other items.	MSME Foundation					
	Pottery Cluster	Gurgaon District	Pottery	MSME Foundation					
	Auto Parts and electroplating Cluster	Gurgaon District, 1000-10000 units	Auto Parts	dcmsme.gov.in					
	Mechanical Engineering Equipment	Gurgaon District, 500-1000 units	Mechanical Equipment's	nisiet-cluster.org					
GURGAON	Electronic Goods	Gurgaon District,500-1000 units	Electronics	nisiet-cluster.org, MSME Foundation					
	Electrical Engineering Equipment**	Gurgaon District,100-500 units	Electrical Equipment's	nisiet-cluster.org					
	Readymade Garments	Gurgaon District,500-1000 units	Readymade garments	nisiet-cluster.org, dcmsme.gov.in, MSME Foundation					
	Foundry	Gurgaon District	Foundry	MSME Foundation					
	Chemicals**	Gurgaon District, 66 units	Chemicals	nisiet-cluster.org					
FARIDABAD	Pottery Cluster**	Faridabad	Kulhar, grain storage, water jars, toys, lamps, wall panels	MSME Foundation					
ALTIDADAD	Light Engg. Industries Cluster	Sector-24, Faridabad,1900 units	Engineering Equipment	DIC, dcmsme.gov.in, MSME-DI, nisiet-cluster.org, MSME					

UTTAR PRAD	UTTAR PRADESH					
District	Name	Location of the Cluster (Name of the Block/ Village/ Town),No. of Units	Type of Manufacturing Item(s)	Source		
				Foundation		
	Stone Crushing	I) Pali, Mohabtabad (139 units); II) Dhauj (17 units) Faridabad	Stone Crushing	DIC, nisiet-cluster.org		
	Auto Components	1)Mathura Road, 2)Sector 6, 3)Sector 24, 4)Industrial Area Faridabad,1000-10000 units	Transport Equipment's and Parts	DIC, nisiet-cluster.org		
	Wood Carving**	Faridabad	Wood carvings	nisiet-cluster.org (artisanal)		
	Textile Products	Faridabad,49 units	Garments	DIC, MSME-Foundation		
	Metalware	1)Sector 24, 2)Sector 25, 3)Mathura Road DLF, 4)Industrial Area (100 units) Faridabad	Foundry, Casting	DIC, nisiet-cluster.org (artisanal), MSME Foundation		
	Power loom	Panipat,100-500 units	Carpets	nisiet-cluster.org, MSME Foundation		
	Shoddy Yarn	Panipat,100-500 units	Cotton Spinning	nisiet-cluster.org, MSME Foundation		
PANIPAT	Foundry	Samlakha, Panipat,100-500 units	Foundry	nisiet-cluster.org, MSME Foundation		
	Carpets	I. Export Manufacturers Panipat Town, 199 units	Furnishing, bed sheet, khess, duree, mats throws,	SIDBI		

UTTAR PRAD	UTTAR PRADESH					
District	Name Location of the Cluster (Name of the Block/ Village/ Town),No. of Units		Type of Manufacturing Item(s)	Source		
		II. Composite Manufacturers and Tufting Firms, Desiraj Colony, Noorwala Jatal Road Kabri Road, Kachcha Kavdi Pathak, Kishanpura Ubra Khedi, Ujha Road Other areas (Samalkha, Devipur, Balhra, Kalram,Ranamajra, Bewarpur, Chourap,	Blanket			
	Furniture	Pundri, Kaledi etc.), 107 units Panipat	Furniture	nisiet-cluster.org (artisanal), MSME Foundation		
	Jewellery	Panipat	Jewellery	nisiet-cluster.org (artisanal), MSME Foundation		
	Leather articles	Panipat	Leather articles	nisiet-cluster.org (artisanal), MSME Foundation		
	Textile Dyeing Cluster	Panipat, (>1000 units)	Textile Dyeing	Department of Industries		
	Nuts & Bolts Cluster Furniture	Rohtak, 100-500 units Rohtak	Nuts and Bolts Furniture	nisiet-cluster.org nisiet-cluster.org (artisanal), MSME Foundation		
ROHTAK	Metalware	Rohtak	Metalware	nisiet-cluster.org (artisanal), MSME Foundation		
	Stone Inlay	Rohtak	Stone Inlay	nisiet-cluster.org (artisanal), MSME Foundation		
	Wood Inlay**	Rohtak	Wood Inlay	nisiet-clusters.org (artisanal)		

UTTAR PRAD	UTTAR PRADESH					
District	Name	Location of the Cluster (Name of the Block/ Village/ Town),No. of Units	Type of Manufacturing Item(s)	Source		
	Automobiles parts	near Industrial area, Rohtak,300 units	all type of automobile parts	DIC		
	Furniture	Sonepat	Furniture	nisiet-cluster.org (artisanal), MSME Foundation		
	Wood Inlay**	Sonepat	Wood Inlay			
SONEPAT	Woolen durries**	Khorkhoda, Sonepat	Khess, Khaddar			
OONE! A!	Packaging and Printing Cluster	Rai Industrial Area	Packaging Material	Department of Industries, DIC		
	Textile Hand Embroidered	Village- Badi, Tahsil- Ganoor, 150 units	Khess	DIC, nisiet-cluster.org (artisanal), MSME Foundation		
	Jewellery**	Rewari	Jewellery	nisiet-cluster.org (artisanal), MSME Foundation		
	Metalware**	Rewari	Jars, toys, lamps, wall panels, Boxes and Lattice work.	nisiet-cluster.org (artisanal), MSME Foundation		
REWARI	Textiles hand Embroidered**	Rewari	Textiles	nisiet-cluster.org (artisanal), MSME Foundation		
	Brass	Chaudhari wada, Rewadi city,250 units	Cro ckery	DIC		
	Leather Products	1)Vill- Rampur, Block- Rewadi,300 units 2)Vill Odhi, Block-Babal, 70 units	showes	DIC		
	Grass, Leaf, reed and Fibre	Palwal	Grass,Leaf,reed and fibre	nisiet-cluster.org (artisanal), MSME Foundation		
PALWAL	Stone Inlay	Palwal	Stone inlay	nisiet-cluster.org (artisanal), MSME Foundation		
	Terracotta	Palwal Hodal,50 artisans	Lamps, pitchers, flower vases, pots, musical instruments, clay toys,	Ministry of Textiles (craftclustersofindia.in)		

UTTAR PRADESH					
District	Name	Location of the Cluster (Name of the Block/ Village/ Town),No. of Units	Type of Manufacturing Item(s)	Source	
			goblets, human and animal figures, plaques, medallions, and wall hangings.		
	Wood Work	Palwal	Wood work	MSME Foundation	
	Grass, Leaf, reed and Fibre	Jhajjar	Grass, Leaf, reed and Fibre	nisiet-cluster.org (artisanal), MSME Foundation	
	Pottery	Jhajjar	Kulhar, grain storage, water jars, toys, lamps, wall panels	nisiet-cluster.org (artisanal), MSME Foundation	
JHAJJAR	Jewellery	Bahadurgarh Block,300 artisans	Beads and Artificial Jewellery		
	Footwear	Industrial Area, Bahadurgarh, Jhajjar, >300 units	Showes, footwear	DIC	
MEWAT	Pottery Cluster**	Mewat	Pottery	IMRB	

DELHI					
District	Name	Location of the Cluster (Name of the Block/Village/Town), No. of Units	Type of Manufacturing Item(s)	Source	
	Zari Work By Hand	Civil Lines	Zari Work By Hand	nisiet-cluster.org	
	Terracotta	Kingsway Camp	Terracotta products	MSME Foundation	
NORTH DELHI	Jewellery	Kingsway Camp	Jewellery	MSME Foundation	
	Food Products	Lawrence Road (North Delhi)	Food Products	nisiet-cluster.org, MSME Foundation	

DELHI				
District	Name	Location of the Cluster (Name of the Block/Village/Town), No. of Units	Type of Manufacturing Item(s)	Source
	Stainless Steel Utensils & Cutlery	Wazirpur, Badli, North West Delhi		DC MSME, MSME-DI nisiet-cluster.org
	Metal Fabrication	Mayapuri & Wazirpur	Metal Fabrication	nisiet-cluster.org, MSME Foundation
	Auto Components* Stainless Steel Utensils &	Okhla, Mayapuri, Naraina, Wazirpur Badli & G.T. Karnal Road Wazirpur, Badli, North West		nisiet-cluster.org, MSME Foundation
	Cutlery*	Delhi	Stainless Steel Utensils & Cutlery*	DC MSME, MSME-DI nisiet-cluster.org
	Wood caerving	Pitampura village Wazirpur Flatted Factories	Wood carving	NCRPB
	Leather Products	Complex	Leather Products	nisiet-cluster.org
	Electro Plating	Wazirpur	Electro Plating	nisiet-cluster.org
	Chemicals Cluster*	Okhla, Mayapuri (South &West)	Chemicals Cluster*	nisiet-cluster.org, MSME Foundation
	Electrical Engineering Equipment Cluster*	Naraina & Okhla (South &West)	Electrical Engineering Equipment Cluster*	nisiet-cluster.org, MSME Foundation
	Mechanical Engineering Equipment*	Okhla, Mayapuri, Anand Parbat (South &West)	Mechanical Engineering Equipment*	nisiet-cluster.org, MSME Foundation
SOUTH DELHI	Packaging Material*	Naraina, Okhla, Patparganj (West South, East Delhi)	Packaging Material*	nisiet-cluster.org, MSME Foundation
OOU I II DELIII	Paper Products*	Naraina, Okhla (South &West)	Paper Products*	nisiet-cluster.org, MSME Foundation
	Auto Components*	Okhla, Mayapuri,Naraina, Wazirpur Badli & G.T. Karnal Road	Auto Components*	nisiet-cluster.org, MSME Foundation nisiet-cluster.org, MSME Foundation,
	Readymade Garments*	Okhla And Shahadra	Readymade Garments*	MSME-DI
	Home Furnishing	Okhla	Home Furnishing products	MSME Foundation

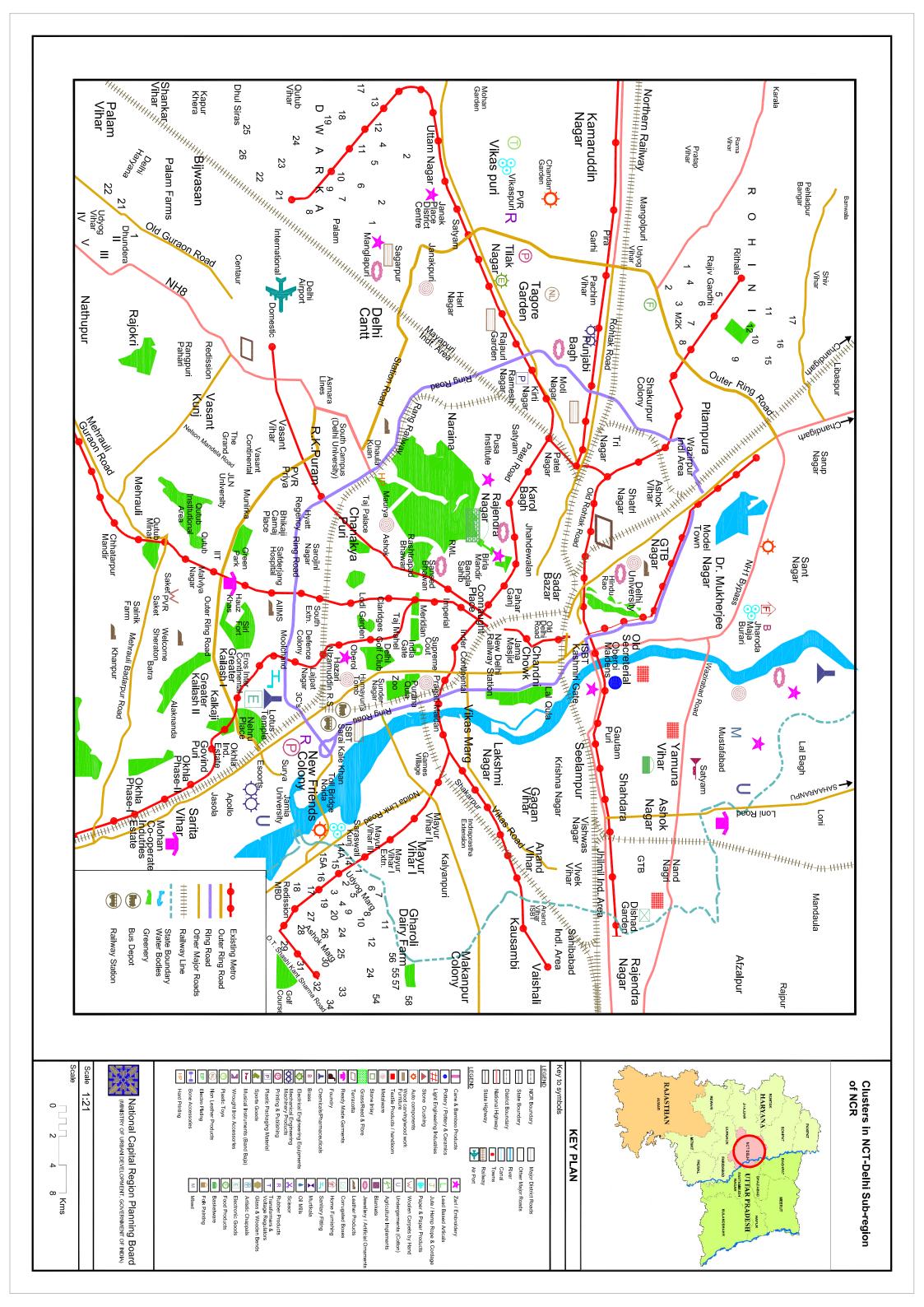
DELHI				
District	Name	Location of the Cluster (Name of the Block/Village/Town), No. of Units	Type of Manufacturing Item(s)	Source
	Sanitary Fittings	Okhla	Sanitary Fittings	nisiet-cluster.org, MSME Foundation
	Leather Products	Okhla	Leather Products	nisiet-cluster.org, MSME Foundation
	Electronic Goods*	Naraina & Okhla (South &West)	Electronic Goods*	nisiet-cluster.org
	Plastic Products*	Naraina Udyog Nagar, Okhla (South &West)	Plastic Products*	nisiet-cluster.org
	Rubber Products*	Naraina,Okhla,Shivaji Marg,Najafgarh Road	Rubber Products*	nisiet-cluster.org
	Hosiery*	Shahdara,Gandhinagar, Okhla & Maidangari	Hosiery*	nisiet-cluster.org
	Folk Painting	Hastsal	Folk Painting	craftclustersofindia.com
	Paper Accessories	Kalkaji	Paper Accessories	MSME Foundation
	Woodwork	Jamia Nagar	Wood Products	MSME Foundation
	Basket Ware	Jamia Nagar	Basket Ware	MSME Foundation
	Jewellery (Lac)	Jama Masjid	Jewellery (Lac)	MSME Foundation
	Leather Products	Ashram (South &West)	Leather Products	MSME Foundation
	Metalware	Lajpat Nagar	Metalware	MSME Foundation
	Durries (Coton/ Jute/ Hemp)	Munirka	Durries (Coton/ Jute/ Hemp)	MSME Foundation
	Leather Products	Mehrauli	Leather Products	MSME Foundation
	Carpets	Mehrauli	Carpets	MSME Foundation
	Jewellery	Okhla	Jewellery	MSME Foundation
	Zari/ Embroidery	Zakir Nagar	Zari/ Embroidery	MSME Foundation
	Paper Accessories	Vasant Kunj	Paper Accessories	MSME Foundation
WALLED CITY &	Embroidery	Dariyaganj, Sadar Paharganj, Jama Masjid	Embroidery	craftclustersofindia.com
WALLED CITY	Jewellery	Chandni Chowk	Jewellery	MSME Foundation
EXTENSION	Zari/ Embroidery	Ajmeri Gate	Zari/ Embroidery	MSME Foundation

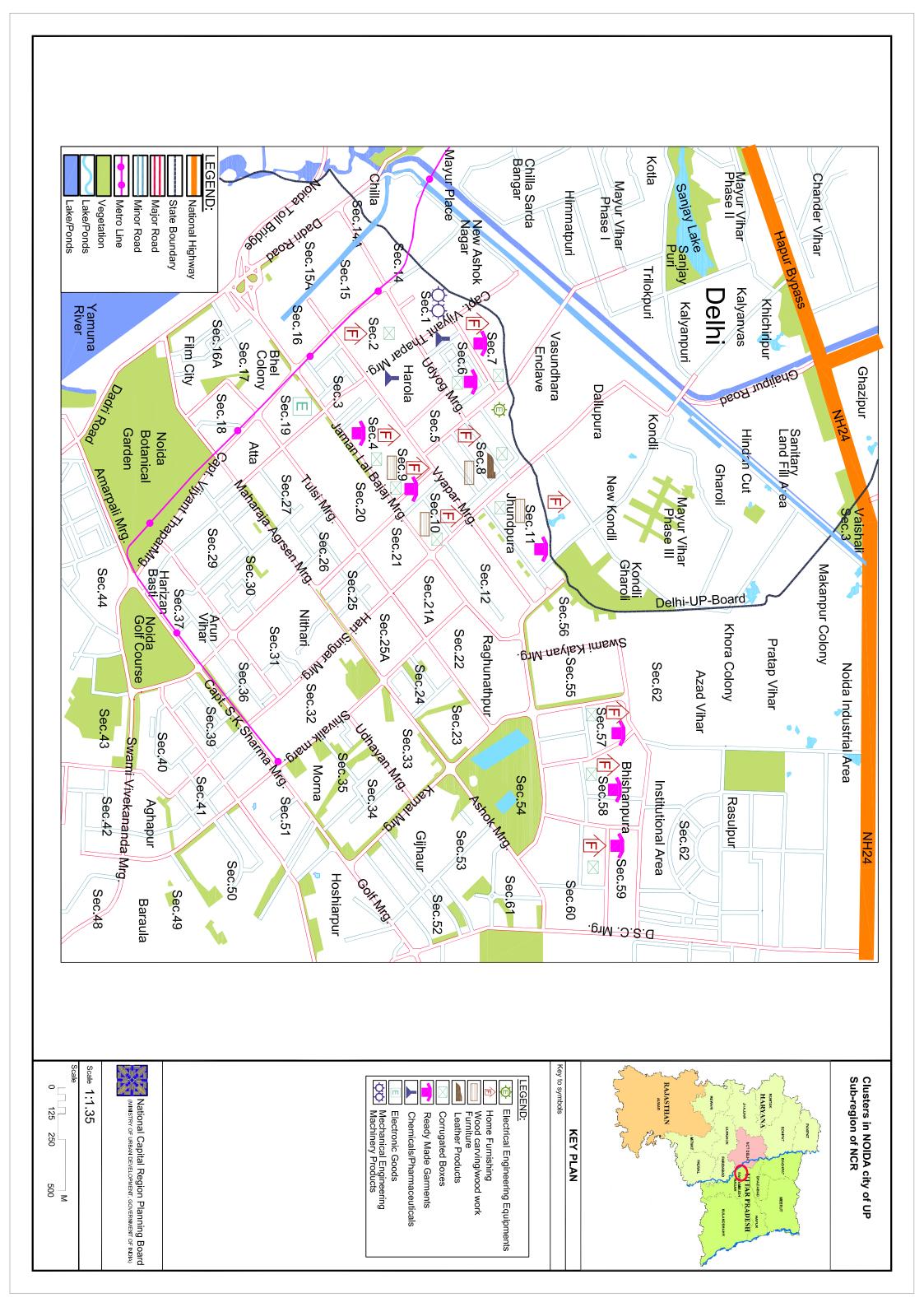
DELHI				
District	Name	Location of the Cluster (Name of the Block/Village/Town), No. of Units	Type of Manufacturing Item(s)	Source
	Jewellery	Turkman Gate	Jewellery	MSME Foundation
	Basketware	Paharganj	Basketware	MSME Foundation
	Hand Printing	Kutch New Delhi	Hand Printing	craftclustersofindia.com
	Metalware	Nabi Karim	Metalware	MSME Foundation
	Leather Products	Nabi Karim	Leather Products	MSME Foundation
	Mechanical Engineering Equipment*	Okhla, Mayapuri, Anand Parbat (South And West Delhi)	Mechanical Engineering Equipment*	nisiet-cluster.org, MSME Foundation
	Jewellery (Lac)	Karol Bagh	Jewellery (Lac)	MSME Foundation
	Wood Work	Panchkuian Road	Wood Work	MSME Foundation
	Non Leather Footwear Cluster Printing Cluster	Udyog Nagar/ Delhi Naraina	Non Leather Footwear Cluster Printing Cluster	dcmsme.gov.in dcmsme.gov.in
	Printing And Packaging	Mayapuri, Kriti Nagar	Printing And Packaging	dcmsme.gov.in
	Electrical Engineering Equipment Cluster*	Naraina & Okhla (Souht And West Delhi)	Electrical Engineering Equipment Cluster*	nisiet-cluster.org, MSME Foundation
WEST DELHI	Mechanical Engineering Equipment*	Okhla, Mayapuri, Anand Parbat (South And West Delhi)	Mechanical Engineering Equipment*	nisiet-cluster.org, MSME Foundation
	Packaging Material*	Naraina, Okhla, Patparganj (West South, East Delhi)	Packaging Material*	nisiet-cluster.org, MSME Foundation
	Paper Products*	Naraina, Okhla (West And South)	Paper Products*	nisiet-cluster.org, MSME Foundation
	Furniture	Kirtinagar & Tilak Nagar	Furniture	nisiet-cluster.org, MSME Foundation
	Electronic Goods*	Naraina & Okhla (Souht And West Delhi)	Electronic Goods*	nisiet-cluster.org
	Plastic Products*	Naraina Udyog Nagar, Okhla (West And South)	Plastic Products*	nisiet-cluster.org

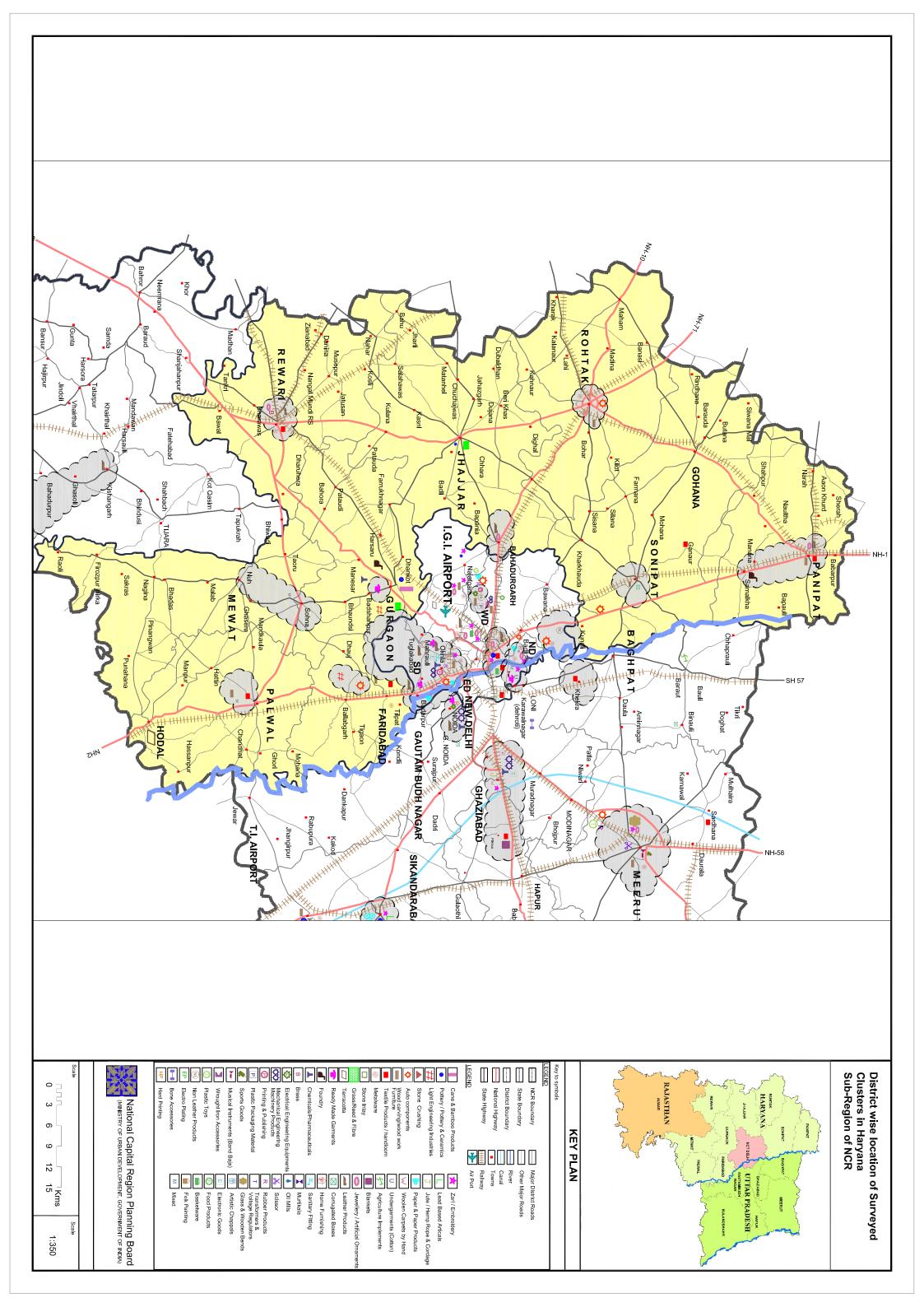
DELHI				
District	Name	Location of the Cluster (Name of the Block/Village/Town), No. of Units	Type of Manufacturing Item(s)	Source
	Rubber Products*	Naraina,Okhla,Shivaji Marg,Najafgarh Road	Rubber Products*	nisiet-cluster.org
	Toys Cluster*	Shahadara,Mayapuri, Naraina	Toys Cluster*	nisiet-cluster.org
	Textiles Hand Embroidered	Patel Nagar, West Delhi	Textiles Hand Embroidered	craftclustersofindia.com
	Earthenware & Pottery	Delhi(West)	Earthenware & Pottery	nisiet-cluster.org
	Zari/ Embroidery	Najafgarh	Zari/ Embroidery	MSME Foundation
	Zari/ Embroidery	Mangolpuri	Zari/ Embroidery	MSME Foundation
	Metalware	Madipur	Metalware	MSME Foundation
	Terracotta	Palam	Terracotta	MSME Foundation
	Jewellery (Lac)	Nangloi	Jewellery (Lac)	MSME Foundation
	Woodwork	Tilak Nagar	Woodwork	MSME Foundation
	Potter Cluster	Vikasnagar, New Delhi	Potter Cluster	dcmsme.gov.in
	Embroidery And Zari Work By Hand	Kakrola Sector 15 & 16	Embroidery And Zari Work By Hand	craftclustersofindia.com
	Handloom Cluster	Sundarnagari, Nandnagari	Handloom Cluster	dcmsme.gov.in
	Packaging Material*	Naraina, Okhla, Patparganj (West South, East Delhi)	Packaging Material*	dcmsme.gov.in
	Readymade Garments*	Okhla And Shahadra	Readymade Garments*	dcmsme.gov.in
	Wire Drawing	Shahadara & Vishwasnagar		nisiet-cluster.org, MSME Foundation
EAST DELHI	Hosiery*	Shahdara,Gandhinagar, Okhla & Maidangari	Hosiery*	nisiet-cluster.org, MSME Foundation
	Toys Cluster*	Shahadara,Mayapuri, Naraina	Toys Cluster*	nisiet-cluster.org, MSME Foundation
	Zari Work By Hand	Khichdipur, New Delhi	Zari Work By Hand	nisiet-cluster.org, MSME Foundation
	Zari Work By Hand	Shahdara	Zari Work By Hand	
	Embroidery By Hand	Shahdara(North)	Embroidery By Hand	nisiet-cluster.org, MSME Foundation

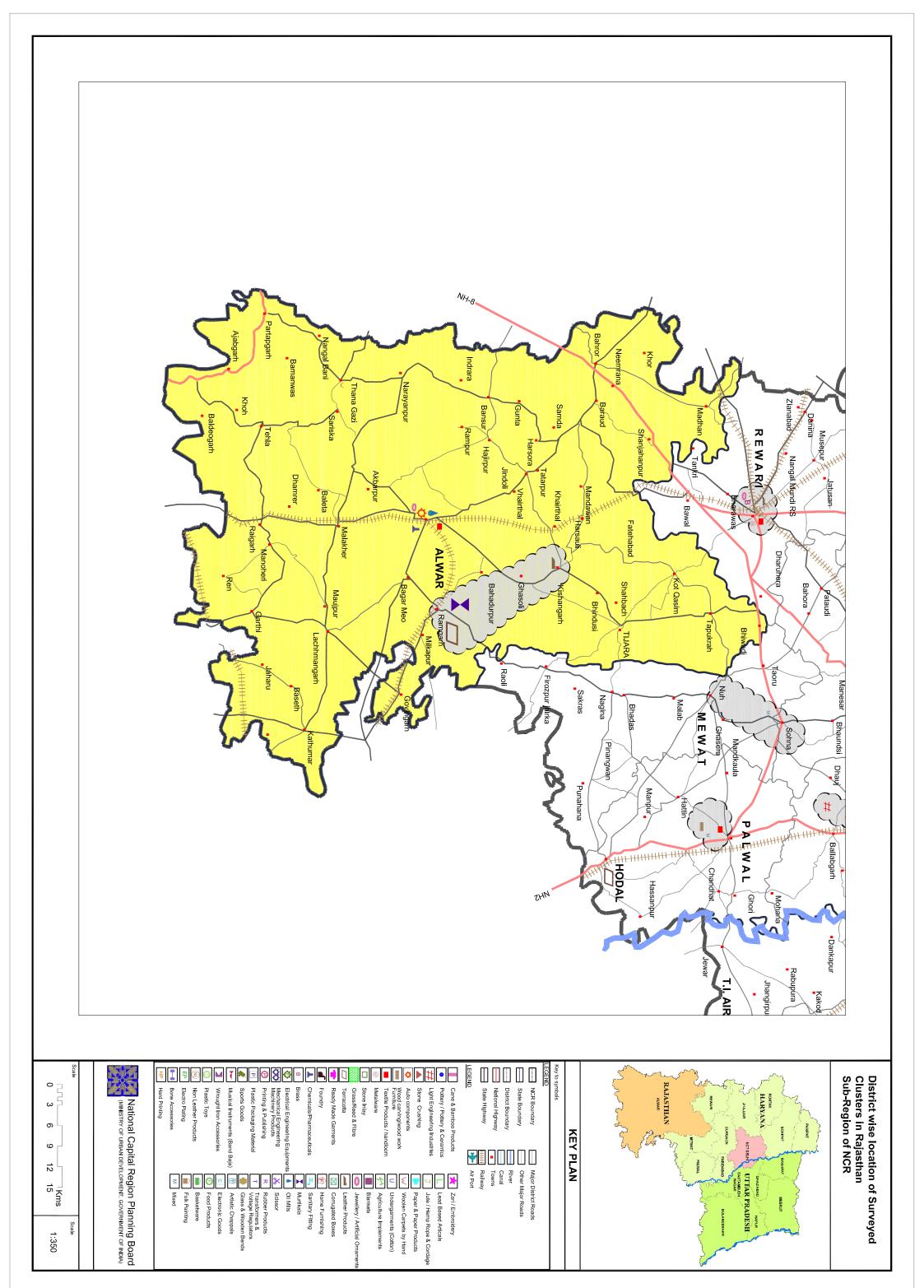
DELHI	DELHI DEL MARIA DEL M					
District	Name	Location of the Cluster (Name of the Block/Village/Town), No. of Units	Type of Manufacturing Item(s)	Source		
	Imitation Jewellary Etc.	Shahdara(North)	Imitation Jewellary Etc.	nisiet-cluster.org		
	Metal, Brass & Copper Earth Ware	Shahdara(North)	Metal, Brass & Copper Earth Ware	nisiet-cluster.org		
	Musical Instrument By Hand	Shahdara(North)	Musical Instrument By Hand	nisiet-cluster.org		
	Wood Furniture & Fixtures	Shahdara(North)	Wood Furniture & Fixtures	nisiet-cluster.org		
	Leather Products	Shahdara(North)	Leather Products	craftclustersofindia.com		
	Zari Work By Hand	Shahdara(North)	Zari Work By Hand	nisiet-cluster.org		
	Durries (Coton/ Jute/ Hemp)	Laxmi Nagar	Durries (Coton/ Jute/ Hemp)	MSME Foundation		
	Zari/ Embroidery	Nand Nagari	Zari/ Embroidery	MSME Foundation		
	Jewellery (Lac)	Seemapuri	Jewellery (Lac)	MSME Foundation		
	Basketware	Seelampur	Basketware	MSME Foundation		
	Paper Accessories	Seelampur	Paper Accessories	MSME Foundation		
	Basketware	Shakarpur	Basketware	MSME Foundation		
	Woodwork	Shakarpur	Woodwork	dcmsme.gov.in		
	Handloom Cluster	Khajoori Khas	Handlooms	craftclustersofindia.com		

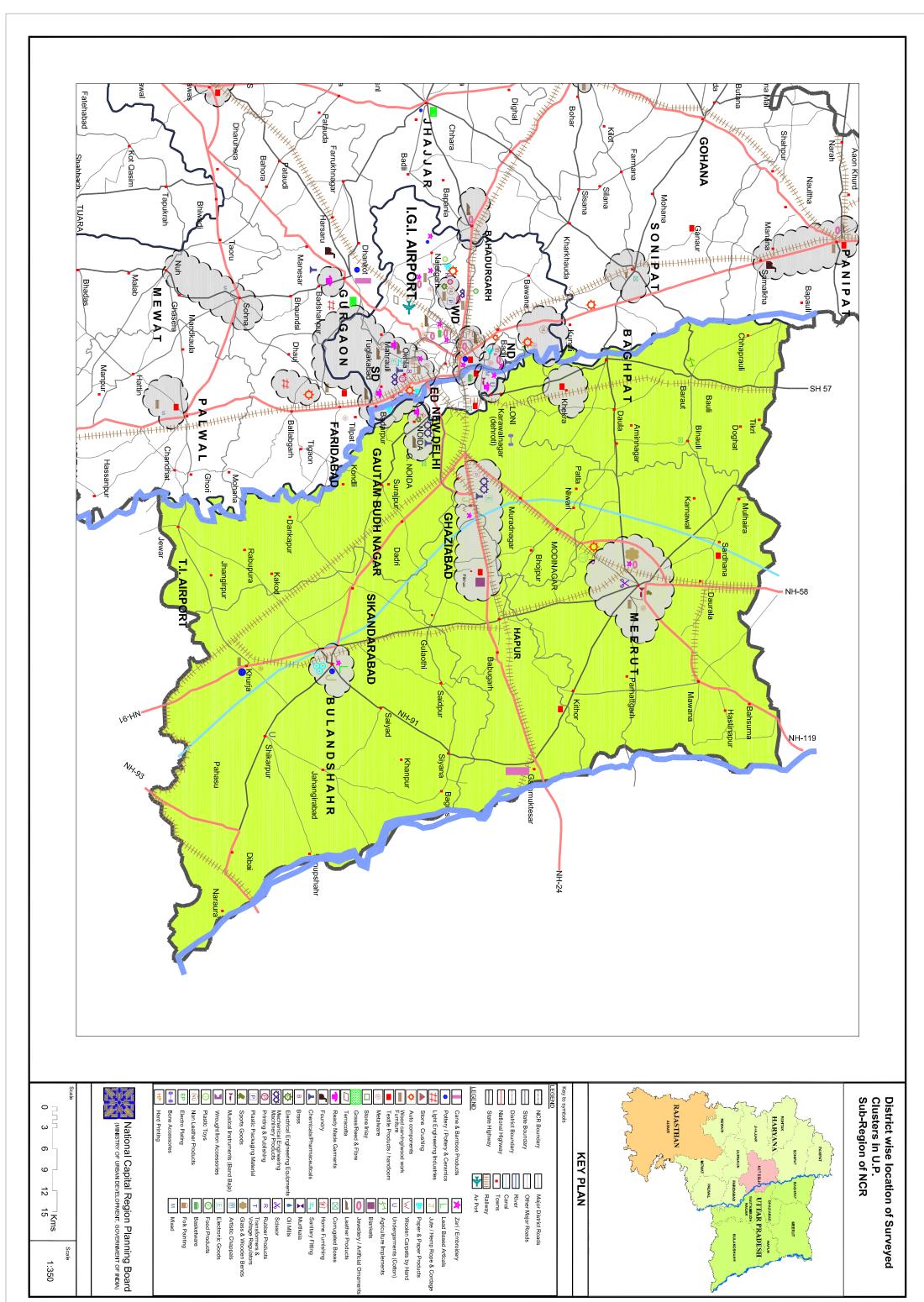
Appendix G. Mapping of Clusters

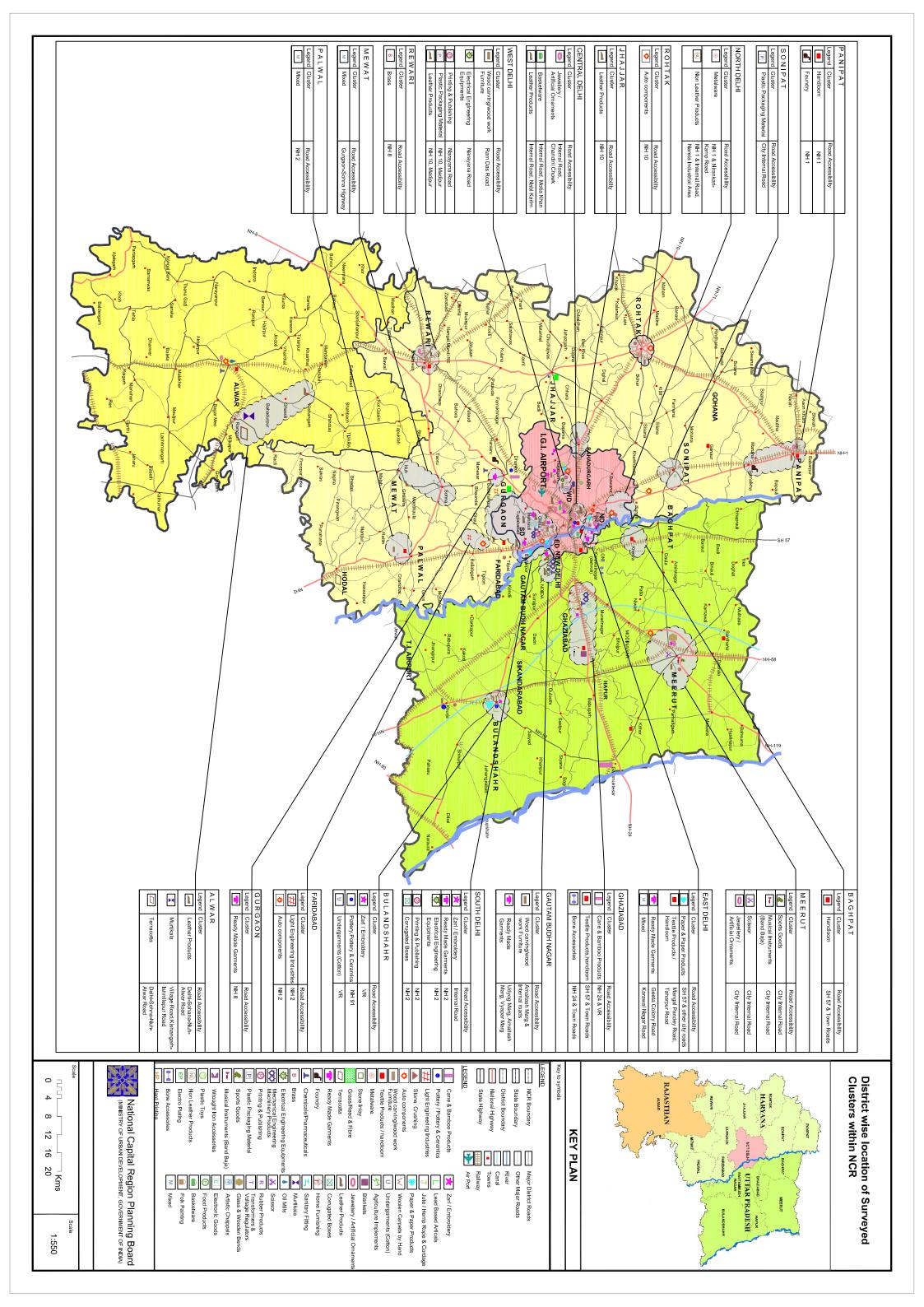


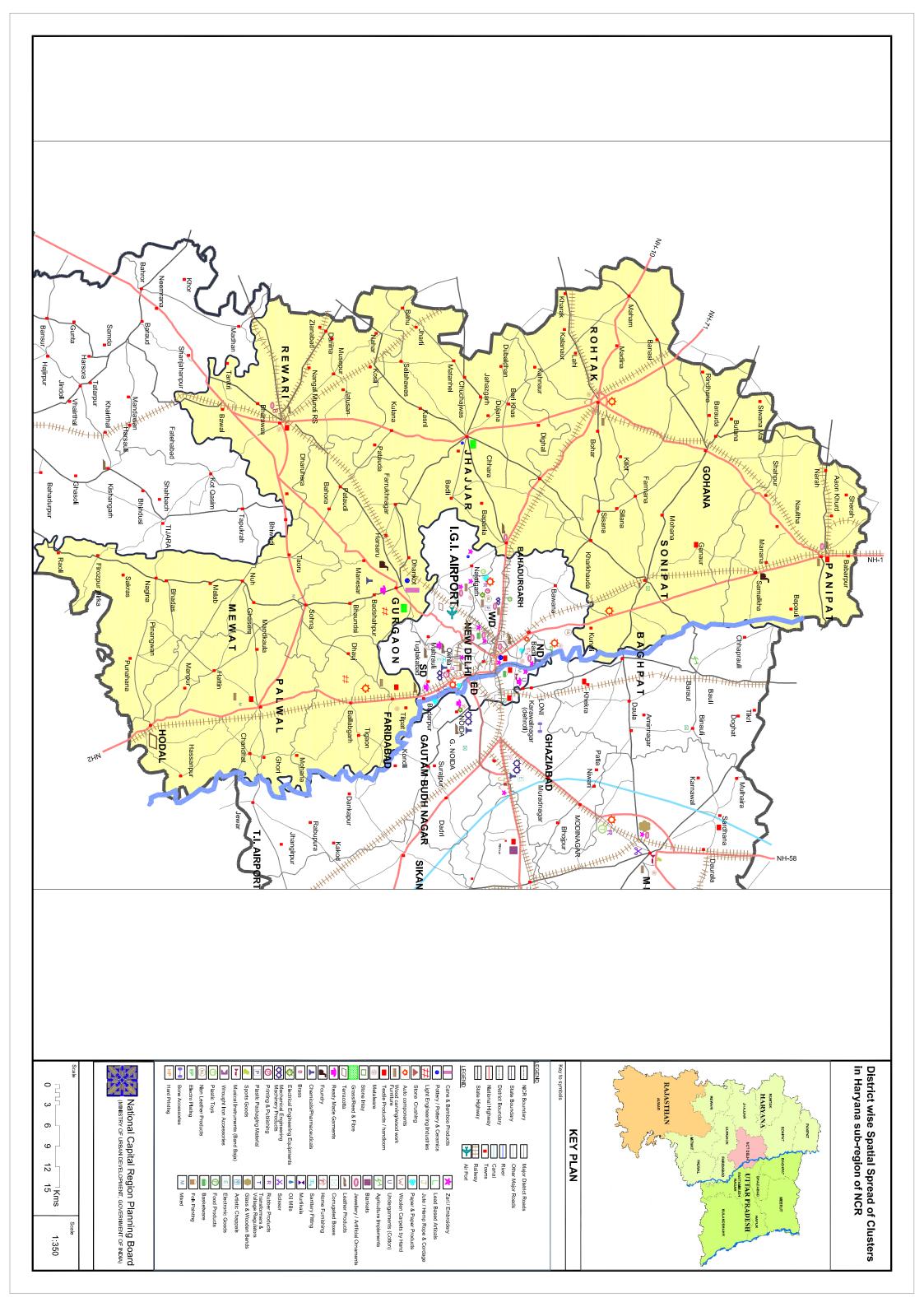


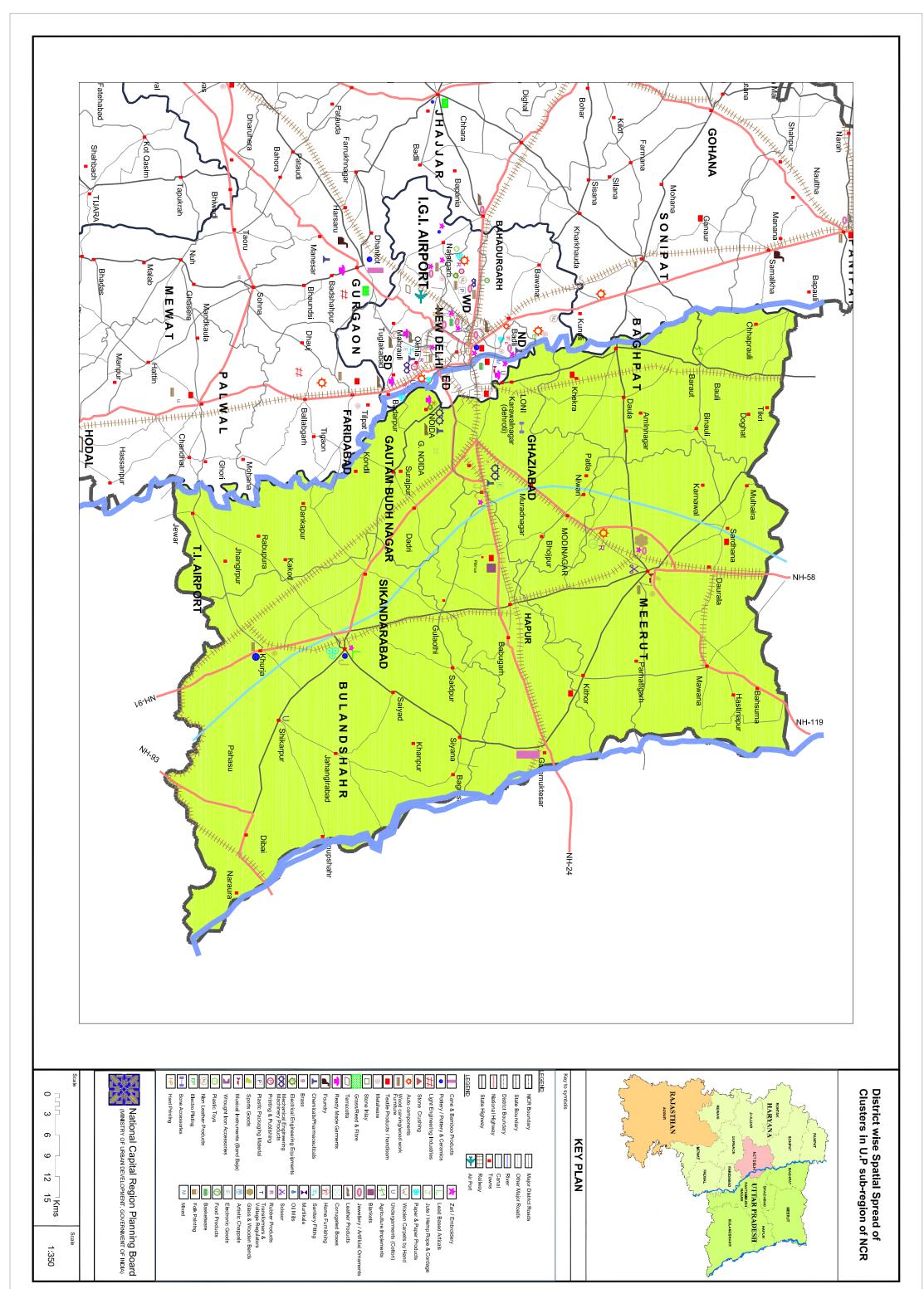


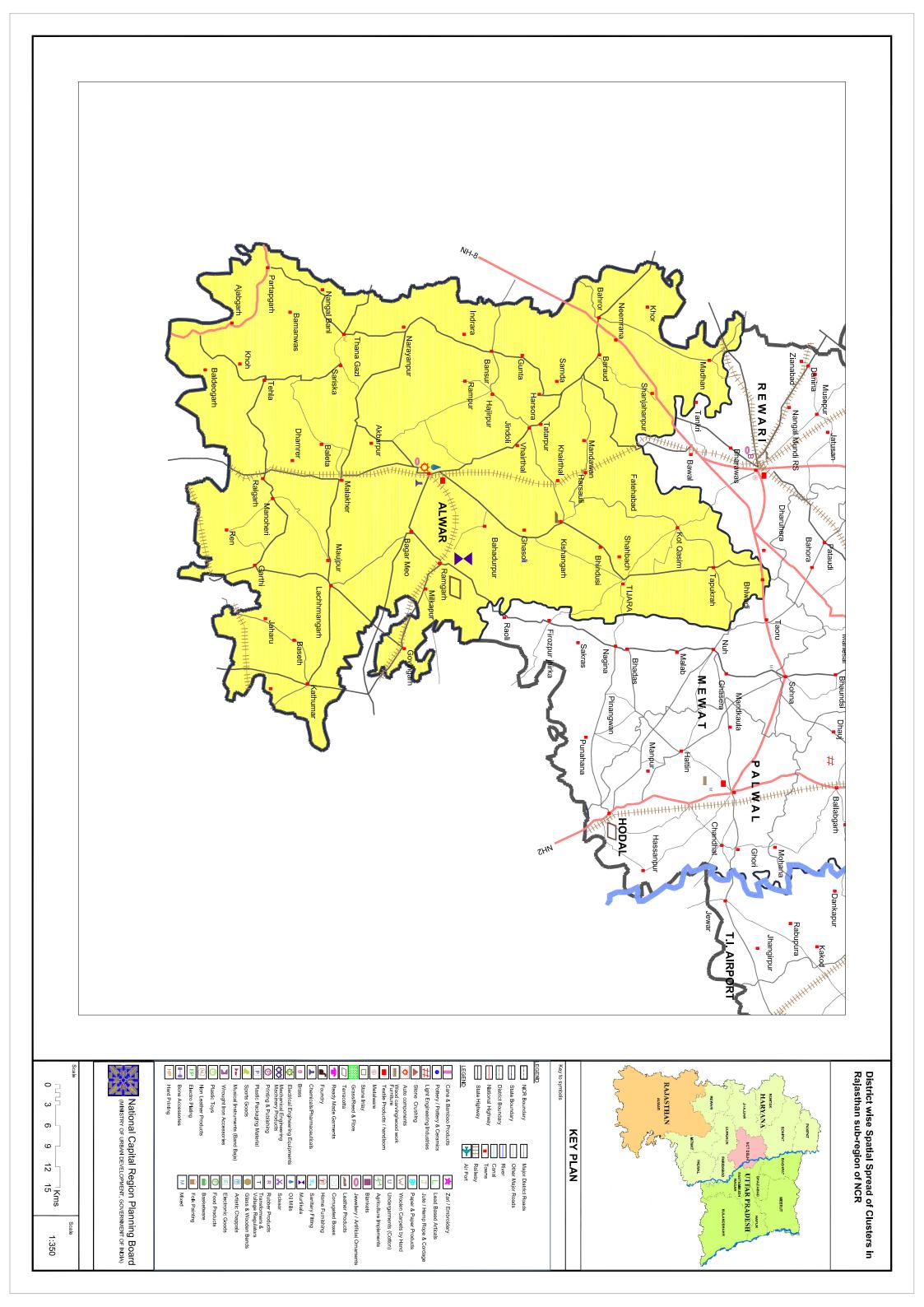


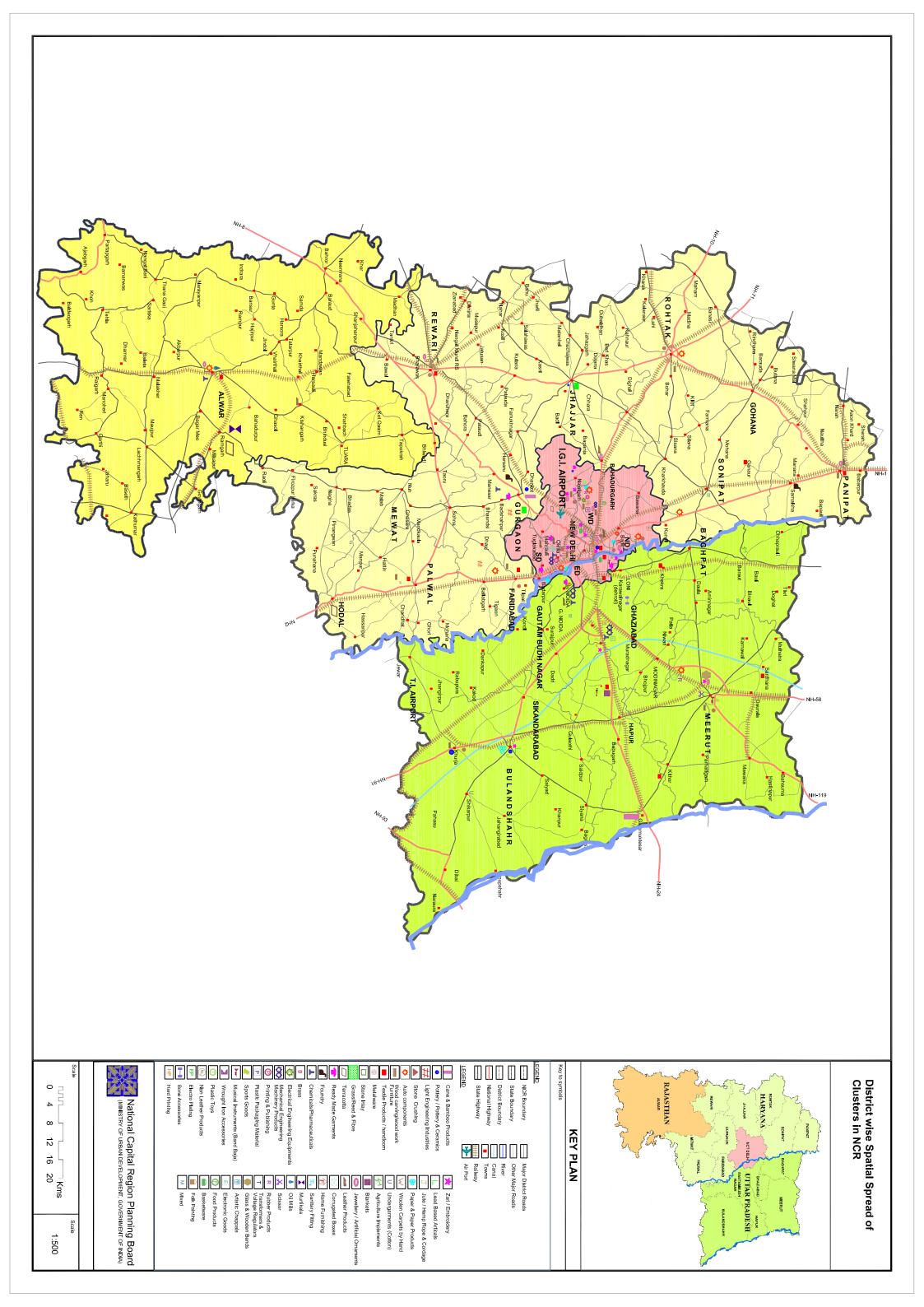












Appendix H. Industries Chapter, Master Plan of Delhi

7.0 INDUSTRY

As per Economic Survey of Delhi 2001-2002, there were about 1,29,000 industrial units in Delhi in 1998 against 85,050 units in 1991. A door-to-door industrial survey revealed that an average unit employed 9 workers while 30% of the units employed 4 workers or less. The survey also revealed that textiles products (garments) units constitute the largest number, followed by repair services and electrical machinery. The table below shows the growth of industrial units and employment.

YEAR	NO. OF	NO. OF
IEAK	INDUSTRIES	EMPLOYEES
1981	42,000	5,68,910
1991	85,050	7,30,951
1998	1,29,000	14,40,000

Source: Economic Survey of Delhi 2001-2002

The issue of industries in Delhi has been a subject of extensive debate, controversy and concern over the past decade. This has centred mainly on the aspects of pollution and negative environmental impact of industries, the existence and continued growth of industries in non conforming areas and the issue of classification and permissibility with reference to household industries. Serious concern has been expressed regarding the continued existence and further proliferation of industries in contravention of the provisions made in MPD – 2001.

7.1 STRATEGY

Keeping in view the position brought out above as also in the context of the continuing pressure of population growth in Delhi, the following broad policy would be required for the industrial sector:

- To promote hi-tech and low volume high value added industries, which are not labour intensive.
- To encourage modernization and technological upgradation of existing industries required for day-to-day needs of the people of the city.
- iii) To take corrective measures with regard to industries in non-conforming industrial areas in terms of environmental and other norms as may be prescribed.
- iv) To provide suitable incentives and disincentives, and other measures, for shifting and relocation of industrial units not conforming to the land use norms.
- v) To review, and possibly widen, the scope of permissibility of household industrial units subject to adherence to pollution control norms and environmental considerations, fire safety regulations and other relevant factors, particularly the aspect of infrastructure services.
- vi) Adhoc licensing of industrial units to be discontinued.
- vii) To take specific measures to encourage the dispersal of existing industries / development of new industries in the NCR and limiting the growth of new industries within the NCT of Delhi.

7.2 CLASSIFICATION OF INDUSTRIES

The industrial classification is proposed to be simplified with prohibited category and non-prohibited category subject to proposals regarding specific category of industries permitted in different use zones. Further, all planned industrial areas are designated under a single landuse category namely "Industry". The standards prescribed by the pollution control authorities would have to be met by all industrial units, in addition to specific conditions in terms of number of

workers and power load in specific categories.

Industries listed under prohibited category (Annexure 7.1) shall not be permitted in Delhi. The existing industrial units under prohibited category need to shift to conforming areas or to relocate themselves outside Delhi within a period of three years.

7.3 PERMISSIBILITY OF INDUSTRIAL UNITS IN DIFFERENT USE ZONES AND USE PREMISES

For the industrial classification, the limits of aforesaid parameters shall be fixed according to the nature of industries, area and the nature of industrial development. The threshold parameters for industrial units are given in table 7.1.

Table 7.1: Parameters for Industrial Units in Different Use Zones & Use Premises

USE ZONE / USE	GROUPS	CONDITIONS		
PREMISES	PERMITTED (REFER ANNEXURE)	MAX. NO. OF WORKERS	MAX. INDUSTRIAL POWER LOAD (KW)	
Residential Use				
a) Residential	A	5	5	
b) Villages (Abadi) in Green Belt.	A+A1	5	5	
Commercial Use				
a) Convenience Shopping Centre, Local Shopping Centre.	A+ A1 Service / repair /	5	6	
b) Community Centre.	packaging / assembly (without	9	11	
c) District Centre,d) Service Market, Service Centre.	manufacturing) of permissible industries.	19	11	
Industrial Use				
a) Plotted development	All industries except those prohibited	As per need	As per need	
b) Flatted Industries	All industries except those prohibited. Non polluting & excluding industries producing noise/ water/ vibrations/ odour pollution	20	As per need	

Notes:

- i) Maximum No. of workers shall be as per notification issued by the competent authority from time to time.
- ii) The power requirement for operating pollution control devices & non manufacture use shall be over and above the aforesaid permissible load.

7.4 HOUSEHOLD / SERVICE INDUSTRIES

 i) Household industrial units with maximum 5 workers and 5 kilowatt power may be allowed to continue in residential areas and new industrial units of this type could be permitted in residential areas subject to the condition that no polluting industrial

- unit shall be permitted as household industry.
- ii) The industrial units could be permitted only after registration by the Govt. of NCTD and clearance from the Pollution Control Authorities.
- iii) Household industrial units would be allowed to the extent of 25% of the floor space or 30 sqm. whichever is less. Further additions / alterations to the list of Household Industries

- could be made if considered appropriate and in public interest by the Central Government to do so.
- iv) No inflammable or hazardous material is permitted to be stored.
- v) To set up a household industry, separate industrial electric connection (single phase), would be necessary. So would be the Municipal license.

List of Household / Service Sector activities is given in Annexure 7.1

7.5 NO INDUSTRIAL ACTIVITY ZONE

In order to maintain the city's ambience and pollution free environment in important and historic areas of Delhi, following locations are categorized as 'No Industrial Activity Zone' where no industrial activity including household industry, shall be permitted.

- a) Lutyen's Bungalow Zone
- b) Civil Lines Bungalow Area
- c) Employer Housing
- d) Group Housing

7.6 INDUSTRIAL AREA REDEVELOPMENT SCHEMES

The redevelopment schemes cover the following aspects;

- i) Modernization and upgradation of existing planned industrial areas; and,
- ii) Redevelopment of areas which have become industrialized over the period of the two Master Plans even though not designated as such.

7.6.1 EXISTING PLANNED INDUSTRIAL AREAS

These industrialized areas were developed in the 70's and, over the years, have deteriorated considerably in terms of physical infrastructure and, in some cases deficiencies on this score have persisted in an overall sense. Besides, there have been changes in the nature of activities in some of the areas and there have also been demands for using part of the plots for activities which could be classified as commercial. There may also be a need to see whether further densification is possible in terms of creating smaller plots by sub-divisions to accommodate a larger number of industries / units.

There is, therefore, a need for Modernization and Upgradation of the existing industrial areas with due regard to environmental considerations. Since most of the Industrial areas are located along the Mass Public Transport Corridors, there is also a need for optimizing the use around these areas through the process of redevelopment.

This process of upgradation and redevelopment will need to be carried out in a planned manner, and in a public-private framework, partnership in which the entrepreneurs contribute to the betterment subsequent and maintenance through Operation suitable and Maintenance arrangements.

7.6.2 REDEVELOPMENT OF UNPLANNED INDUSTRIALISED AREAS

Besides the planned industrial areas, in the MPD-2001, the following areas of industrial concentration had been identified for redevelopment as industrial areas:

- i) Anand Parbat Industrial Area;
- ii) Shahdara Industrial Area;
- iii) Samai Pur Badli Industrial Area.

The redevelopment process as envisaged has, however, not materialised due to non preparation of redevelopment plans, which would necessarily involve widening of roads, laying of services, development of open space and parking etc. On the other hand, a number of other residential areas / non conforming areas have witnessed uncontrolled growth of industrial concentration, despite the pointers and recommendations made in this regard in the MPD- 2001. Both these aspects could reflect deficiencies in the process of planning or developed and / planned, unwillingness of the concerned persons / promoters to abide by the law and make any real or perceived sacrifices in the interest of planned development.

In practical terms, these areas are deficient in terms of services and endanger the environment. The redevelopment of such areas needs to be based on clearly defined parameters in terms of the types of industries which may be permitted, spatial planning norms and environment related conditionalities regarding the provision of essential infrastructure with the participation of the owners / entrepreneur in a systematic manner.

7.6.2.1 NORMS FOR REDEVELOPMENT OF CLUSTERS OF INDUSTRIAL CONCENTRATION IN NON CONFORMING AREAS.

Keeping in view the existing realities, as well as the imperatives of planned development, the following norms will have to be followed in the redevelopment process.

Clusters of industrial concentration in nonconforming areas over a minimum area of 4 Ha. contiguous area, having more than 70% plots within the cluster under industrial activity / use may be considered for redevelopment on the basis of actual surveys. The redevelopment scheme will have to be prepared by the concerned land owning Agency / Society (to be formed by the owners) with the approval of the MCD / DDA, subject to statutory Environmental clearances and clearances of competent Agencies, based on the following norms / conditions:

- i) It should have direct approach from a road of at least 18 m ROW.
- ii) Formation of Society shall be mandatory for preparation of redevelopment plan, pollution control and environmental management, development of services and parking and maintenance.
- iii) Only non-hazardous and non-noxious industries having clearance from DPCC shall be permitted.
- iv) Floor area and industrial activity at premise level shall not exceed 200 sqm.
- v) Other stipulations shall include-
 - a) Minimum 10% area is to be reserved for circulation / roads / service lanes.
 - b) Plots measuring less than 100 sqm. to have minimum 7.5 mtrs. ROW.
 - c) Plots measuring more than 100 sqm. to have minimum 9.0 mtrs. ROW.
 - d) Minimum 10% of semi-permeable surface for parking and loading / unloading areas.
 - e) Common parking to be provided for plots below 60 sqm., whereas for plots above 60 sqm. front set back (min. 3 m) shall be provided

- without boundary wall for parking and loading and unloading.
- f) Minimum 10% of total areas to be reserved for infrastructure requirements like CETP, Sub-Stations. Pump House, Fire Station, Police post, etc. as per the norms and preparation of:
 - Plan for water supply from DJB along with requirement for pumping stations, storage tanks, ground water recharging / rainwater harvesting.
 - Drainage plan as per MCD norms.
- vi) 8% of the cluster area shall be reserved for parks / green buffer.
- vii) Other provisions / development control norms etc. shall be as given in Development Code.
- viii) The redevelopment be shall completed within the period that may be specified while approving each proposal. Units in clusters which fail complete the redevelopment proposals within the period specified as above shall have to close down and / or shift to other conforming industrial areas. In such cases, the licensing authority will not renew / issue the licenses to industrial units without obtaining land use clearance from the competent authority.
- ix) The redevelopment work shall be undertaken by the societies of entrepreneurs at their own cost. Requisite charges for change in land use, enhanced FAR and land (wherever applicable) will be

- required to be paid to the concerned Authority.
- x) No new licenses will be issued in non-conforming areas, without first obtaining land use clearance.

The following areas shall not be eligible for redevelopment scheme: -

Bungalow Zones (New Delhi & Civil Lines), the Ridge, River Bed (Zone-O), areas along water bodies, canals, sensitive areas from security point of view, conservation & heritage areas, reserved / protected forests, DDA flats, Cooperative Group Housing Societies, Government flats / bungalows / Employer housing etc. and their immediate proximity.

7.7 NEW INDUSTRIAL AREAS

Out of the 1.30.000 industrial units in Delhi. around 25,000 to 30,000 (Source: DUEIIP Project Report 2001, Govt. of NCTD) are located in planned industrial areas or comprise permissible household industries. It is thus clear that a very sizeable number of industries would need to be relocated either in Delhi or elsewhere in the National Capital Region, even if some areas are identified for redevelopment and regularization. Keeping this in view, development of new industrial areas should be largely planned for the purpose of relocation of existing industries and for the development of a limited type of new industries, which cannot operate in residential and other use zones. The focus of new industrial development should, as a matter of policy, be in the NCR.

7.8 INDUSTRY USE ZONE - GUIDELINES

The subdivision of industrial use zone into use premises and subsequent approval of layout plans for industrial estates shall be governed by the following norms:

i) The new industrial areas to be developed may have plotted development for individual industrial units. The maximum size of industrial plots in new industrial

- areas shall be 400 sqm. except in already approved schemes.
- ii) About 30 to 40% of net industrial area may be used for flatted industry. The minimum size of plot for flatted industry shall be 400 sqm. facing minimum 20 m ROW.
- iii) The provision of land for the required facilities in industrial areas shall conform to norms given in the following table:

Table 7.2: Norms for Land Distribution in Industrial Areas.

S.NO.	USE PREMISES	Percentage
1.	Industrial Plots (Net Area)	55-60
2.	Recreational: Buffer Zone, Parks, Water Bodies, Green under HT lines, etc.	10-12
3.	Commercial: Shopping Centre, Petrol Pumps, Guest House/ Budget hotels, Lodging and Boarding, Service and Repair shops, Communication/ Telephone Exchange, etc.	2-3
4.	 Facilities Public and Semi-Public: Fire Station, police Station, Hospitals, Dispensary, Dharamshala, Night Shelter, Day Care Centre, etc. Utilities: Electric Sub-Station, CETPs, Pumping Stations, Underground Reservoirs/ Fire Fighting Tanks and other utilities, etc. 	8-10
5.	Transportation: Circulation, Loading/Unloading Area, Parking, ideal truck Parking, Goods Vehicle Parking etc.	18-20
	Total	100

- iv) All new Industrial Estates shall have approach from a road of at least 30 m ROW.
- v) Plots measuring less than 100 sqm. and plots measuring more than 100 sqm. shall be facing road width of 9 m ROW and 12 m ROW respectively.
- vi) Individual industrial plots facing main peripheral roads shall have

- access from dedicated service road after leaving green buffer.
- vii) The listed water bodies and / or any water bodies above 4000 sqm. size are mandatory to be systematically included in the landscape plan.
- viii) Minimum 10m wide green buffer shall be provided along peripheral / access roads in the industrial areas.
- ix) The provision of rainwater harvesting as an integral part of the

- landscape and storm water drainage plan at the time of sanction of layout plan shall be prepared.
- x) The provision of minimum 30% of semi-permeable surface in all parking and loading/ unloading areas.
- xi) Grease traps should be provided near automobile washing together with adequate parking area.
- xii) New Industrial Areas should be located preferably as an integral part of Facility Corridor along major arterial roads. Major infrastructure network like CNG, LPG, oil, optical fibre, electricity, etc. to be made available along this corridor through underground pipelines.
- xiii) Optimum utilisation of industrial area along MRTS should be made by way of development of flatted factories complexes.
- xiv) All industries should have provision for separating the solid waste before discharging the effluent to the CETPs.
- xv) The provision of CETPs, solid waste separation/treatment plants to be made at industrial cluster level.

- xvi) Proper disaster planning shall be done for meeting any emergency situation arising due to fire, explosion, sudden leakage of gas, etc. or other natural calamities like earthquake, flood, etc.
- xvii) Industries may be grouped on the basis of common requirements such as effluent treatment, commercial needs, interdependence and nuisance value such as fire hazard, noise etc. as suggested below:
 - a) Electronics and telecommunications.
 - b) Electrical goods including appliances.
 - c) Auto parts, light engineering and service industries.
 - d) Printing, paper products and allied packaging.
 - e) Service and supplying units.
- xviii) Selection of trees and plants shall be made keeping in view aspects such as distinctive avenue development, round the year flowering in park areas (either mixed or in cluster form), and shade requirements in specific areas.

Table7.3: Development Controls - Industry

Use Premises	N	Iaximu	m	Parking standard ECS/ 100 sqm. Of floor area	Activities Permitted	Definition
	Gr.Cov. (%)	FAR	Ht (mts)			
Industrial Plot i) 50 sqm. and below	100	200	8	2	Industrial units: unit retail sales outlet and administrative office upto maximum 10% of floor area on ground floor	A premise for industrial activity having upto 50 workers with non-hazardous, non-polluting
ii) 51 sqm. to 400 sqm.	60	180	15	2	only; residential flat upto the maximum extent of 5% of the floor space or 50 sqm.	performance.
iii) 401 sqm. and above	50	150	15	2	whichever is less for watch & ward and supervision, incidental storage and administrative office related to the industrial activity.	
Flatted group Industry (Minimum plot size – 400 sqm.)	30	150	26	2	Industrial units; administrative office, watch and ward, maximum upto 5% of floor area or 20 sqm. whichever is less, storage related to the manufacturing activity.	A premise having a group of small industrial units having upto 20 workers with common services and facilities with non-hazardous, non-polluting performance.

Notes:

- i) In case of plots upto 100 sqm. common parking is to be provided.
- ii) In case of plots of size 500 sqm and above, the utilities such as E.S.S. underground water storage tank, roof top water harvesting system, separate dry and wet dustbins, solar heating/lighting system etc. are to be provided within the plot.
- iii) Service centres identified to be planned as per plotted industrial area norms.

ANNEXURE 7.1

CLASSIFICATION OF INDUSTRIES

GROUP - A HOUSEHOLD INDUSTRIES

- 1. Agarbatti and similar products
- 2. Aluminium hanger (excluding wire drawing and anodizing).
- 3. Ayurvedic / Homoeopathic/Unani medicines.
- 4. Assembly and repair of electrical gadgets.
- 5. Assembly and repair of electronic goods.
- 6. Assembly and repair of sewing machines.
- 7. Assembly of hand tools
- 8. Assembly of Badminton shuttle cocks.
- 9. Assembly and repair of electrical gadgets, cooler/heater etc.
- 10. Assembly and repair of sewing machines.
- 11. Assembly and repair of typewriter (excluding Font Casting).
- 12. Assembly of Bakelite Switches
- 13. Assembly and repair of measuring instruments (excluding handling of Mercury and hazardous materials).
- 14. Atta Chakkies.
- 15. Batik works.
- 16. Block making and photo enlarging
- 17. Biscuit, pappey, cakes and cookies making
- 18. Button making, fixing of button and hooks.
- 19. Book binding.
- 20. Brushes and brooms (by hand).
- 21. Calico and Textile products.
- 22. Cane and bamboo products.
- 23. Cassettes recording.
- 24. Clay and modelling.
- 25. Coir and jute products.
- 26. Cardboard boxes.
- 27. Candles.
- 28. Copper and brass art wares.
- 29. Cordage, rope and twine making.
- 30. Carpentary.
- 31. Clay and Modelling with Plaster of Paris.
- 32. Contact Lens.
- 33. Canvas bags and holdalls making.
- 34. Candles, sweets, rasmalai etc. (when not canned).
- 35. Cotton/silk printing (by hand).
- 36. Computer repairing and cyber information Centre
- 37. Computer Software
- 38. Dari and carpet weaving.
- 39. Detergent (without bhatti).
- 40. Data processing.
- 41. Dairy products e.g. Cream, ghee, paneer, etc.
- 42. Dry Cleaning (excluding big workshops)
- 43. Desk Top Publishing.
- 44. Embroidery.
- 45. Enameling Vitreous (without use of coal).
- 46. Framing of pictures and mirrors.
- 47. Fountain pens, ball pens and felt pens.
- 48. Gold and Silver thread, kalabattu.
- 49. Hosiery products (without dyeing and bleaching).
- 50. Hats, caps, turbans including embroideries.

- 51. Ivory carving.
- 52. Ink making for fountain pens.
- 53. Information Technology and enabling services
- 54. Interlocking and buttoning.
- 55. Jewellery items.
- 56. Khadi and handloom.
- 57. Khus tattis.
- 58. Knitting works.
- 59. Lace products.
- 60. Leather footwear.
- 61. Leather belts and assembly of buckles (by hand)
- 62. Leather and rexine made ups.
- 63. Milk Cream Separation.
- 64. Manufacture of Jute products.
- 65. Manufacture of Bindi.
- 66. Name plate making.
- 67. Production of following items.
 - (i) Blanco cakes
 - (ii) Brushes
 - (iii) Kulfi and confectionery.
 - (iv) Crayons.
 - (v) Jam, jellies and fruit preserves.
 - (vi) Musical instruments (including repairs).
 - (vii) Lace work and like.
 - (viii) Ornamental leather goods like purses, hand bags.
 - (ix) Small electronic components.
- 68. Paper stationery items and book binding.
- 69. Pith hat, garlands of flowers and pitch.
- 70. P.V.C. products (with one moulding machine).
- 71. Paper machine.
- 72. Perfumery and cosmetics
- 73. Photosetting.
- 74. Photostat and cyclostyling.
- 75. Photo copying of drawings including enlargement of drawings and designs.
- 76. Packaging of Shampoos.
- 77. Packaging of Hair Oil.
- 78. Preparation of Vadi, Papad etc.
- 79. Processing of condiments, spices, groundnuts and dal etc.
- 80. Pan masala.
- 81. Production of Sweets and namkeens.
- 82. Paper Mache
- 83. Paper cup. Plates, files cover and letter pads (without printing).
- 84. Photography (developing and printing).
- 85. Repair of watches and clocks.
- 86. Rakhee making
- 87. Repair of domestic electrical appliances.
- 88. Readymade garments.
- 89. Repair of bicycles.
- 90. Repair and assembly of computer hardware.
- 91. Repair of bags, brief cases, suitcases, except use of leather and PVC material.
- 92. Repairing of Water meters, stabilizer, UPS, etc.
- 93. Repair of electronic goods.
- 94. Rubber Stamps.
- 95. Repair of Scooters.
- 96. Stone engraving.
- 97. Sports goods.

- 98. Surgical bandage rolling and cutting.
- 99. Stove pipe, safety pins and aluminium buttons (by hand press).
- 100. Silver foil making.
- 101. Saree fall making.
- 102. Shoe laces.
- 103. Sport nets.
- 104. Stamp pads.
- 105. Screen Printing.
- 106. Tailoring.
- 107. Thread balls and cotton fillings.
- 108. Toys and dolls.
- 109. Ties.
- 110. Tomato Ketchup.
- 111. Umbrella assembly.
- 112. Utensil washing powder (only mixing and packaging).
- 113. Velvet embroidered shoes/shawls.
- 114. Vermicelli and macaroni.
- 115. Wood carving and decorative wood wares.
- 116. Wool balling and lachee making.
- 117. Wooden/cardboard jewellery boxes (subject to no objection certificate from the department).
- 118. Wool knitting (with machine).
- 119. Zari Zardozi.

GROUP A - 1

HOUSEHOLD INDUSTRIES IN VILLAGES (ABADI) IN GREEN BELT

- 120. Black smithy
- 121. Cane and bamboo products
- 122. Clay and modelling with Plaster of Paris
- 123. Dari/Carpet / Sari weaving (except dying & bleaching)
- 124. Stone engraving
- 125. Village pottery Industry (without bhatti)
- 126. Village oil ghani
- 127. Wood carving and decorative and wood wares.

None of the industries mentioned in Group A and A-1 shall carry out the following processes:

i)	Anodising	vii)	Moulding works
ii)	Bleaching	viii)	Use of CFC gases
iii)	Burning of coal	ix)	Varnishing
iv)	Canning Facility	x)	Washing
v)	Dveing		

- v) Dyeing
- vi) Electroplating

Notes:

- i) Storing of chemicals listed under schedule I and/ or II of the Manufacture, Storage and import of hazardous Chemical Rules, 1989 and Public Liability Insurance Act, 1990 shall be prohibited.
- ii) No effluent / emissions shall be allowed to be generated by the units and these shall adhere to the noise standards as stipulated by Ministry of Environment and Forest, Government of India.

PROHIBITED (NEGATIVE LIST)

Industries manufacturing the following shall be prohibited within National Capital Territory of Delhi

- 1. Arc/induction furnace of more than 3 tons per charge
- 2. Acids
- 3. Alkalis
- 4. Animal & fish oils
- 5. Aldehydes
- 6. Acid slurry
- 7. Acetylides, phridines, iodoform, chloroform, E-nepthol, etc.
- 8. Ammonium sulphoajanide, arsenic and its compounds, barium carbonate, barium cyanide, barium ethyle sulphate, barium acetate cinnabar, copper sulphocyanide, ferrocyanide, hydro cyanide, hydro cyanic acid, potassium biocalate, potassium, cyanide, prussiate of potash, phynigalle acid, silver cyanide
- 9. Aircraft building.
- 10. Abattoirs, animal blood processing.(except existing and relocation)
- 11. Bitumen blowing (hot)
- 12. Brick kiln (using fresh earth as raw material, coal as fuel)
- 13. B-nepthol
- 14. Bakelite powder (starting from formaldehyde)
- 15. Barely malt and extract
- 16. Bone-grist, bone-meal, salting of bones, storages of bones in open, bone drying
- 17. Bone charcoal manufacturing
- 18. Blast furnaces coal fired
- 19. Bicycles (integrated plant)
- 20. Brewery and potable spirits
- 21. Chlorinated paraffin wax purification
- 22. Carbon black
- 23. Cement industry
- 24. Calcium carbide, phosphorous, aluminum dust paste and powder, copper, zinc, etc. (electrothermal industries)
- 25. Cranes, hoists and lifts (excluding assembly)
- General industrial machinery (such as hydraulic equipments, drilling equipments, boilers, etc.)
- 27. DOP (Dioctyl Phthalate), DBP & Plasticizer
- 28. Dry cell battery
- 29. Dye & dye intermediates
- 30. Distillation of wood, chemical seasoning of wood (excluding steam seasoning)
- 31. Explosives, i.e., Fireworks, Gunpowder, Guncotton, etc.
- 32. Earth moving machinery/equipment (manufacturing of assembly)
- 33. Electric wires and cables (more than 100 workers, 2000 sq.m land)
- 34. Fatty acids
- 35. Fungicides & pesticides
- 36. Flexographic ink
- 37. Fuel oils, illuminating oils and other oils such as stchetic oil, shoal oil, lubricants
- 38. Foundries (heavy)
- 39. Gas compressors
- 40. Graphite production
- 41. Glass furnace (more than 1 ton/day capacity)
- 42. Gases-carbon-disulphide, ultramarine blue, chlorine, hydrogen, sulphur dioxide, acetylene, etc. (other than LPG/CNG/Oxygen/medical gases)
- 43. Glandular/glandes extraction
- 44. Glue and gelatine from bones and flesh
- 45. Hot mix plant (except those approved by DPCC / CPCB)
- 46. Hazardous waste processing viz. hospital/medical/industrial waste
- 47. Polyurethene foam
- 48. Industrial gelatine, nitro glycerine and fulminate

- 49. Iron/steel metal forging (using steam and power harmmer more than 3 tonnes capacity)
- 50. Industrial gelatine, nitro glycerine and fulminate
- 51. Industrial trucks, trailers, etc.
- 52. Linear alkyd benzene
- 53. Lead manufacturing including secondary lead industry (recovery of lead from waste scrap)
- 54. Lime kiln
- 55. Leather tanning (raw hides/skins to semi finish)
- 56. Locomotives and wagons
- 57. Methanol
- 58. Methylated spirit
- 59. Mechanical stone crushers & washing of coarse sand
- 60. Manufacturing of pulp & paper
- 61. Melamine resin
- 62. Mineral salts (which involve use of acids: CuSO₄, FESO₄, alum, etc.)
- 63. Manufacturing of diesel engines, generators except assembly
- 64. Motor cycles, scooters, cars, tempos, trucks, etc.
- 65. Newsprint
- 66. News print manufacturing, pulping, fresh paper making
- 67. Nitrogeneors and phosphatic fertilizers, except mixing of fertilizers for compounding (large scale)
- 68. Organic solvent, chlorinated minerals, methanol, aldehydes, methylated spirits
- 69. Petroleum coke processing, not as fuel
- 70. Potteries/refractories (using coal or furnace oil)
- 71. Polyethylene polymers including resins
- 72. Paint industry (nitro Cellulose & Alkyd resin based)
- 73. Plasticisers manufacturing
- 74. Pyridines
- 75. Phenol formaldehyde resin and powder (starting from urea and formaldehyde)
- 76. Porcelain product potteries (using coal of production capacity more than 2 tonne per day)
- 77. Rubber solution and thinner (using naptha and rubber scrap)
- 78. Roasting of Ore Sulphide Oxides of mixtures
- 79. Rayon fibre manufacturing
- 80. Refractories
- 81. Reclamation of rubber and production of tyres and tubes (devulcanisation)
- 82. Saccharine
- 83. Secondary Zine industry
- 84. Synthetic rubber
- 85. Smelting
- 86. Sewing machines (integrated units) except assembly
- 87. Sluice gates and gears
- 88. Steam engines
- 89. Steel pipes and tubes (continuous welded/seamless)
- 90. Sugar, khand sari
- 91. Sodium silicate industry (more than 1 tonne/day)
- 92. Stone quarrying
- 93. Textile (more than 100 workers in all shifts, I acre of land, 100 LKD of water)
- 94. Thorium, radium and similar isotopes and recovery of rare earth
- 95. Turbines
- 96. Urea & Phenyl Formaldehyde resin
- 97. Vegetable oil hydrogenerated
- 98. Waste (crude / burnt) oil processing (refinery)

Notes:

- i) A public utility service involving any of the activities referred to above shall be permitted subject to environmental laws.
- ii) Further additions / alterations to the list of Prohibited Industries could be made if considered appropriate and in public interest by the Central Government to do so.

Appendix I. Recommendations of Prime Minister's Task Force

CHAPTER V RECOMMENDATIONS OF THE TASK FORCE

5.1 The Task Force constituted 6 Sub-Groups on the major areas of concern for the MSME sector, namely, credit, marketing, labour, exit policy, infrastructure/ technology/skill development and taxation. A separate Sub-Group was constituted to look into specific problems relating to special package for North-East and Jammu & Kashmir. Each of the Sub-Groups examined the specific issues over a series of meetings and after detailed deliberations with all the stakeholders, including MSME Associations, submitted their Reports to the Task Force. After detailed discussions on each of the recommendations contained in the reports of the Sub-Groups, the Task Force makes the following recommendations as given below.

Credit

- **5.2** The Task force makes the following recommendations for enhancing the flow of credit to MSMEs:.
- **5.2.1** All the scheduled commercial banks should achieve a 20% growth in credit year-on-year to micro and small enterprises and strictly adhere to the allocation of 60% thereof to micro enterprises to ensure enhanced credit flow. From 1st April 2010, shortfall of any bank against the already accepted target of 60% to micro enterprises (of the total lending to MSEs) may be put into an appropriately named corpus with the Small Industries Development Bank of India (SIDBI). This would facilitate additional credit flow of over Rs.3 lakh crore to micro enterprises from the scheduled commercial banks over a period of 5 years.

(Action: Ministry of MSME / DFS - 3 months)

5.2.2 A target of 15% annual growth in number of micro enterprise accounts may be stipulated for all scheduled commercial banks till financial inclusion has been substantially achieved. Reserve Bank of India (RBI) may issue necessary instructions in this regard. This would help in covering an additional 30 lakh micro enterprises under institutional credit in a period of 5 years.

(Action: DFS/RBI – 1 month)

5.2.3 The stimulus package announced by the government/RBI/IBA may be extended upto 31st march 2011 including special refinance facility of Rs.7000 crore provided to SIDBI.

(Action: DFS/RBI/SIDBI - 2 months)

5.2.4 A Committee under the chairmanship of Member (Industry), Planning Commission, with the Secretary, Department of Financial Services, Chairman, Indian Banks'

Association and representative of the industry as Members and the Secretary, Ministry of MSME as its Member Secretary may be constituted. The Committee may (i) Monitor the overall credit flow to the MSME sector at regular intervals; (ii) Look into the existing interest subvention schemes for the agriculture and housing sectors to examine the extent of replicability for the MSEs; (iii) Identify institutional bottlenecks in the flow of credit to the sector; and (iv) Suggest policy measures for augmenting credit flow to the MSME sector.

(Action: Ministry of MSME – 1 month)

5.2.5 The ability of MSMEs (especially those involving innovations and new technologies) to access alternative sources of capital like angel funds/risk capital needs to be enhanced considerably. For this purpose, removing fiscal/regulatory impediments to use such funds by the MSMEs should be considered on priority.

(Action: Ministry of MSME/DOR/DEA – 3 months)

5.2.6 SIDBI may constitute an Advisory Group comprising members from M/o MSME, D/o Financial Services and representatives of MSME Associations for monitoring the operations of Special Cell set up to provide refinance for micro/unorganised sector enterprises. The Group may periodically meet to resolve any problems relating to lending of funds earmarked for micro enterprises. The Group may also review the effectiveness of this arrangement after a year to decide on the need for a separate body for this purpose.

(Action: DFS/SIDBI – 1 month)

5.2.7 Securities and Exchange Board of India (SEBI) may expedite the process of setting up of SME Exchanges in consultation with all the stakeholders.

(Action: DEA/SEBI - 3 months)

5.2.8 The recommendations of the High Level Committee to review the Lead Bank Scheme under Smt. Usha Thorat, Deputy Governor, RBI may be implemented on priority basis to facilitate banking penetration and to strengthen the monitoring systems at State/District level.

(Action: RBI – 1 month)

5.2.9 The Task Force noted that a Working Group under the chairmanship of Executive Director, RBI is looking into the issues regarding: (a) Enhancement of the collateral-free loan limit for MSEs from Rs.5 lakh to Rs.10 lakh; and (ii) Absorption of the one-time guarantee fee and annual service charges by the banks under the Credit Guarantee Scheme to facilitate

higher flow of credit to MSEs without collateral/third party guarantee. The Working Group may submit its report within 3 months.

(Action: RBI – 3 months)

5.2.10 The Task Force noted that the RBI has constituted a Working Group on 'Securitization of Trade Credit Receivables' to examine various options for liquidating the receivables before maturity. This process need to be expedited for larger benefits to MSMEs. Further, the D/o Financial Services may look into the issue of evolving a suitable legal framework for promotion of factoring services without recourse in the country for MSMEs.

(Action: DFS/RBI - 3 months)

5.2.11 Banks should approve project loans (comprising of both term loan and working capital) for MSEs to avoid delay in tying up of funds by the MSEs. The RBI may consider making this mandatory for the banks.

(Action: DFS / RBI / Banks – 3 months)

5.2.12 Banks may be encouraged to use scoring model so as to have speedy disposal of loan applications of micro and small enterprises.

(Action: DFS/RBI – instructions issued)

5.2.13 In order to simplify the process of credit dispensation to micro enterprises, a uniform loan application form for loans up to Rs.25 lakh should be devised by the IBA that should be applicable to all the banks. The D/o Financial Services may bring out a model form within 3 months.

(Action: DFS – 3 months)

5.2.14 All the banks may adopt Banking Code for MSEs to bring about uniformity in operations. DFS may examine this issue through RBI.

(Action: DFS/RBI – 3 months)

5.2.15 Banks should be encouraged to participate in organizing joint programmes relating to entrepreneurship and skill development. RUDSETI, which are promoted by the banks, should also impart entrepreneurship and skill development training for different MSME clusters.

(Action: DFS/RBI/Banks – 3 months)

5.2.16 Taking into account the recent experience during the economic slowdown, banks may extend liberal moratorium on their term loans and working capital to MSE entrepreneurs by including interest during first 6-12 months of operation as part of the long term funding of the projects.

(Action: DFS/RBI/Banks - instructions issued)

5.2.17 Banks may put in place an electronic tracking system for ensuring timely approval/rejection of loan applications of MSEs and they should be informed about the reasons for rejection of their loan application within a definite period. For this purpose, Banks may have a dedicated cell at the Regional Office level to monitor the progress of applications received till its final disposal. RBI may suitably advise the Banks in this regard.

(Action: DFS/RBI/Banks – 2 months)

5.2.18 The Lead Bank in association with the District Industries Centre should prepare a shelf of project profiles on a periodic basis for different viable activities which have a good potential. The progress in this regard may be monitored at the District, State and Central level.

(Action: DFS/RBI/Banks - instructions issued)

5.2.19 Each lead bank of a district may adopt at least one MSE cluster and banks should open more MSE focused branch offices at different MSE clusters which can also act as Counseling Centres for MSEs.

(Action: DFS/RBI/Banks – Instructions issued)

5.2.20 While loans up to Rs.50,000 are covered under micro finance, banks are generally not inclined to provide loans below Rs.5 lakh due to a high risk perception and transaction costs. Banks may lend to pool of micro entrepreneurs who have been financed by Micro Finance Institutions and are now ready for borrowing at higher levels in the missing middle segment of Rs.50,000 to Rs. 5 lakh by covering them under the Credit Guarantee Scheme.

(Action: DFS/RBI/Banks – no time lines)

5.2.21 Banks should encourage their officials to undergo specialized certificate course run by Indian Institute of Banking and Finance on the subject of SME Finance for Bankers by suitably incentivising them. The Task Force noted that an incentive scheme already exists in the Banks.

(Action: DFS / IBA – no time lines)

5.2.22 The Ministry of MSME may set up an 'MSME Helpline' after detailed discussions with the Departments/agencies having similar 'Helplines' to ensure that the same is successfully implemented.

(Action: Ministry of MSME – 6 months)

Rehabilitation and Exit Policy

- **5.3** MSMEs get continuously created and destroyed. Even temporary disruptions can render them sick. The Task Force makes the following recommendations for their rehabilitation and exit.
- **5.3.1** The Limited Liability Partnership Act 2008 (LLP) provides for enabling schemes of revival as well as liquidation and winding up. The Ministry of Corporate Affairs has also introduced the Companies Bill 2009 which includes a provision for a 'one person company (OPC)'. The MSMEs need to be encouraged/ incentivised to convert to these forms through: (a) increasing awareness by organizing awareness campaigns across the country; (b) introducing a graded corporate tax structure with base rates lower than the income tax slab rates in terms of the new Direct Tax Code; and (c) keeping registration and transaction costs low for adopting the LLP or OPC mode.

(Action: MoCA/ DoR/MoMSME – no time lines)

Banks have existing mechanism/ procedures for rehabilitation/ restructuring of potentially viable sick MSMEs. However, as the track record of the sick units is generally poor, the bankers are often reluctant to rehabilitate such units. Consequently, very few units are being rehabilitated by banks. Moreover these mechanisms do not provide protection from statutory dues or other creditor action. There is, therefore, a need for an alternate mechanism to re-examine the viability of such units and implement a rehabilitation package in a time bound manner. It is suggested that for MSME units found to be unviable by the banks, an administrative mechanism may be put in place at district level, under the GM (DIC) to reexamine the viability and implement a rehabilitation package, wherever necessary. The rehabilitation package may comprise, besides additional lending by banks, of relief and concessions in statutory dues by the State Governments/autonomous bodies, Power Supply Company etc. Since the promoters often find it difficult to infuse fresh funds to the extent required by the Banks, Rehabilitation funds specially set up by the State Governments could part-finance promoters margin money requirement. The Central Government may support the setting up of rehabilitation funds in the States to facilitate and encourage rehabilitation of potentially viable sick units. An appropriate scheme should be formulated by Ministry of MSME with an estimated outlay of Rs.1,000 crore.

District Level Committees will be convened by GM, DIC and comprise of representatives of leading banks, representatives of SIDBI and SFC/SIDC, state government officials including

representatives of power supply company (whether government or private) and MSME Associations. The rehabilitation Cell set up in DICs will form the Secretariat of these committees. It will receive and monitor the applications and will also draw up a panel of Technical Officers/ Chartered Accountants to provide assistance in the preparation of the rehabilitation packages. The Rehabilitation cell in consultation with the entrepreneur shall prepare the rehabilitation packages and place before the Committee for approval. The entire process of preparation of rehabilitation plan to finalization of the rehabilitation package should be completed in 2 months time. Till the rehabilitation package is finalized, all statutory and bank payments will be kept in abeyance. This will be binding on all parties by issuance of Government order by the State Government.

In order to incentivize quick sanction and implementation of the rehabilitation packages, RBI may permit the asset classification of the account to be retained as prevailing on the date of reference provided the scheme is implemented within 90 days of the reference without taking cognizance of the restructuring/ reschedulement that may have been allowed by the banks earlier. The banks should devise a liberal OTS policy for small enterprises particularly micro enterprises found unviable by the District level Committee.

(Action: Ministry of MSME/State Governments/Banks – 6 months)

5.3.3 In place of the outdated Provincial Insolvency Act, 1920, action may be initiated to formulate and circulate a model Insolvency Act within 6 months which will have enabling provisions for time bound revival and exit for the unincorporated firms. The model Act should take into consideration the following 4 critical elements: (a) a specialized quasi-judicial body, to appraise viability and set up time bound revival/ closure plans; (b) enabling provisions for a holding period for revival; (c) segregation of business assets from personal assets based on reasonable norms; and (d) speedy winding up in case the business is determined as non-revivable.

(Action: Ministry of MSME in consultation with M/o Corporate Affairs & Ministry of Law & Justice – 6 months)

5.4 <u>Taxation Matters</u>

5.4.1 The Department of Revenue in collaboration with MSME Associations (including CII) shall organize seminars/workshops on GST, with special sessions for MSMEs, for wider debate and allaying the apprehensions of the MSMEs about GST.

(Action: Department of Revenue – 1 month)

5.4.2 Department of Revenue to convene separate pre-Budget meetings for discussing issues relating to MSMEs.

(Action: Department of Revenue – As per schedule)

5.4.3 To evaluate the impact of not allowing exemptions for MSMEs under GST, the Federation of Industries in the North East Region (FINER) will undertake studies of specific products produced in both MSME and large sectors analyzing the cost impact of taxes on MSMEs vis-à-vis large enterprises.

(Action: Ministry of MSME/FINER – 2 months)

5.4.4 Department of Revenue may examine the suggestion regarding raising the limit for tax audit from Rs. 40 lakh to Rs.1 crore in 3 months time.

(Action: Department of Revenue – 3 months)

5.4.5 The scope of presumptive taxation has been extended to all small businesses with a turnover of Rs. 40 lakh, which provides the option to all such taxpayers to declare their income from business at the rate of 8% of their turnover and simultaneously enjoy exemption from the compliance burden of maintaining books of accounts. The Department of Revenue and the Ministry of MSME may jointly organize awareness programmes on presumptive taxation for MSMEs.

(Action: Department of Revenue/Ministry of MSME – 1 month)

5.4.6 MSME Associations will take steps to guide their members in the facility of e-filing of IT returns through interactive workshops.

(Action: Department of Revenue/MSME Associations – 3 months)

Labour Issues

- **5.5** Recognising that the transaction cost for compliance of labour laws is disproportionately high for the MSMEs, the Task Force makes the following recommendations:
- **5.5.1** All out efforts may be taken to get the Labour Laws (Exemption from Furnishing Returns and Maintaining Registers by Certain Establishments) Amendment Bill passed. The amendment will increase the coverage of the Act to existing 16 Acts and 'small' establishments will cover employees between 10 to 40 workers as against 19 in the Principal Act. Further, the Ministries of Labour and Employment and MSME may jointly examine the feasibility and desirability of a separate legislation (single & comprehensive) for MSE Sector.

(Action: Ministry of Labour & Employment – 6 months)

5.5.2 The ESIC and EPF Acts may be examined by the Ministry of Labour & Employment in consultation with stakeholders with a view to find if the social security objectives under these Acts could be met through other mechanisms. Further, the Ministry may also examine ways of utilizing Rs.5000 crore lying unclaimed with EPFO for the welfare of workers and bring it for approval within 3 months.

(Action: Ministry of Labour & Employment – 3 months)

5.5.3 To reduce compliance costs, merger of ESIC and EPFO forms into a single form with separate entries for ESIC and EPFO and payment through a single cheque in respect of the deposits against three EPF Schemes may be done within 30 days.

(Action: Ministry of Labour & Employment – 1 month)

5.5.4 The Task Force noted that computerization of the activities of ESIC and EPFO is in process. The same needs to be expedited.

(Action: Ministry of Labour & Employment – 2 months)

5.5.5 The amendments in the Factories Act, 1948 may be undertaken in consultation with the Ministry of MSME and MSME Associations.

(Action: Ministry of Labour & Employment – no time lines)

Infrastructure/Technology/Skill Development/Institutional Structures

5.6 Infrastructure

5.6.1 Local bodies may be encouraged to set aside substantial part of the collections derived from industrial estates, to upgrade infrastructure such as roads, drainage, sewage, power distribution, water supply distribution, etc. for the existing industrial estates. Alternatively, industrial estates could be notified as separate local bodies as envisaged in the Constitution and entrusted with municipal functions that shall include levy of taxes, responsibility to maintain the infrastructure within the Industrial Estate, etc. As this may involve some reforms/changes in the existing laws/administrative arrangements, a suitable reforms-cumfinancial package (tentatively estimated at Rs 500 crore) may be evolved to incentivise the State Governments, within 3 months.

(Action: Ministry of MSME/State Governments – 5 months)

5.6.2 Expand the scope of the existing Integrated Infrastructural Development (IID) scheme of Ministry of MSME to cover the private sector.

(Action: Ministry of MSME – 6 months)

5.6.3 For new industrial parks/areas being developed under various programmes of different Ministries, where there is no specific provision for locating MSEs, it may be made mandatory to earmark at least 40-45% (preferably 60%) of available land for MSEs.

(Action: All Ministries/Departments – 3 months)

5.6.4 Flatted Factory Complexes may be set up, particularly in and around large cities for MSEs on PPP mode. On similar lines, dormitories for industrial workers in industrial estates may be set up.

(Action: Ministry of MSME – no time lines)

5.6.5 Setting up of common facility services in the industrial estates/clusters on PPP mode be encouraged by providing adequate assistance under various on-going schemes of the Ministry.

(Action: Ministry of MSME – on-going)

5.6.6 Encourage setting up/earmarking of at least one industrial estate in each block for MSEs. Wherever possible, private sector participation may be encouraged.

(Action: State Governments – no time lines)

5.7 Technology

5.7.1 Set up a mechanism in the Ministry of Defence to ensure that the offsets under defence purchases are suitably focused to support the small and medium enterprises in upgrading their capacities, capabilities and technology. Ministry of MSME may be associated in this exercise. The Offset Policy for other departments under consideration should also give priority for extending on the benefits under the off-set policies to the MSMEs in the country. The mechanism for review should include a representative of the MSME.

(Action: Ministry of Defence/Department of Commerce – no time lines)

5.7.2 The initiatives taken under National Manufacturing Competitiveness Programme (NMCP) by the Ministry of MSME for technology upgradation and competitiveness, such as Application of Lean Manufacturing, Implementation of quality management system and quality technology tools, Design Interventions for MSME sector, Scheme for Marketing Assistance, etc., be further strengthened and the required flexibility in operationalising such initiatives should be encouraged. The adoption of ICT (Information and Communication Technology) for MSMEs be encouraged on highest priority to enable SMEs to compete in global market.

(Action: Ministry of MSME – on-going)

5.7.3 A coordinating body (to function as a Technology Bank) be established for continuous interaction with various agencies engaged in development of new technologies for the MSMEs like Department of Science and Technology, Department of Scientific and Industrial Research, Department of Bio-Technology, Council of Scientific and Industrial Research, etc., for dissemination of information on appropriate technologies among the MSMEs. This body may also have representatives of MSME Associations.

(Action: Ministry of MSME – 4 months)

5.7.4 A symbiotic relationship between the MSME clusters and the Technical Institutions be developed by linking each cluster with a Technical Institution to solve the technical and design related problems of the MSMEs.

(Action: Ministry of MSME – 3 months)

5.7.5 All stakeholders should extend financial support to engineering/technical institutes for undertaking research for technological upgradation in MSMEs. To encourage such research, 150% deduction be allowed for contribution made towards funding of R&D work in the engineering/technical institutes under section 10 (21) of Income Tax Act.

(Action: Ministry of MSME/Ministry of HRD/Department of Revenue – 2 months)

5.7.6 Funding to about 1,000 engineering/technical institutes located across the country be provided for setting up of Business Incubators. Schemes of Department of Science and Technology/MSME may be upgraded and enhanced for this purpose with an additional investment of Rs 1000 crore.

(Action: Ministry of MSME/DST – 6 months)

5.7.7 For supporting innovations and technology advancement in rural areas, the Council for Advancement of People's Action and Rural Technology (CAPART) under the Ministry of Rural Development should play a more active role and should come out with specific schemes in this regard.

(Action: Ministry of RD/CAPART – 6 months)

5.7.8 A Technology Acquisition/Development Fund or an appropriate scheme be formulated in consultation with the Planning Commission and others within 3 months to support MSMEs to undertake technology acquisition, adaptation and innovation to enable them to move up the value chain and effectively meet the challenges of a competitive environment. The funds for this purpose, estimated at Rs 1500 crore, may be made available through budgetary sources. A substantial part of the fund should go towards promotion of clean technologies among

MSMEs so as to meet our national commitment to reduce emission intensity by about 20% between 2005 & 2020.

(Action: Ministry of MSME/Planning Commission – 3 months)

5.7.9 To strengthen the infrastructure of existing product-specific technology development centres and set up new such centres in different parts of the country in collaboration with MSME Associations/Industry, a scheme may be evolved in consultation with the Planning Commission, which may be funded from outlays indicated in para 5.7.8. Setting up of new institutions in collaboration with MSME Associations/Industry may be actively encouraged.

(Action: Ministry of MSME/Planning Commission – 6 months)

Skill Development

5.8 The Task Force noted that the Government has already put in place a comprehensive institutional structure for Skill Development. This consist of (i) National Council on Skill Development headed by the Prime Minister of India - to lay down broad policy objectives, financing, governance models and strategies; (ii) National Skill Development Coordination Board in the Planning Commission - to implement the decisions of the National Council and develop appropriate operational guidelines and instructions; and (iii) National Skill Development Corporation - to enable the corporate sector to initiate major steps in skill development. The PM's National Council has set a target to train 500 million people by 2022. Further, the Government has also approved the National Policy on Skill Development with the objective to create a workforce empowered with improved skills, knowledge and internationally recognized qualifications to gain access to decent employment and ensure India's competitiveness in the dynamic global labour market. The Task Force was of the view that skill development initiatives for MSMEs would have to be dovetailed with the overall national framework of the skill development. Under these overarching objectives, the Task Force recommends the following:

5.8.1 The Prime Minister had recommended that State Government may making available the existing Government infrastructure like school/college buildings, etc. to the private sector for running entrepreneurship/skill development courses. The recommendation of the Prime Minister should be pursued. The Ministry of MSME may take up the matter with the Ministry of HRD and the State Governments. the State Governments.

(Action: Ministry of MSME/Ministry of HRD/State Governments – 3 months)

5.8.2 To integrate entrepreneurship/skill development with the secondary, intermediate and university level education, appropriate course curricula be designed and developed by a central entrepreneurship/skill development organisation and included in the curricula of the education system all over the country.

(Action: Ministry of HRD – 6 months)

5.8.3 Linkages between industry and entrepreneurship/skill development centres be strengthened by incentivising Industry Chambers/Associations to set up skill development centres.

(Action: Ministry of MSME – no time lines)

5.8.4 Existing Entrepreneurship/Skill Development Centres (both public and private) should give special thrust on training of trainers to ensure a cascading effect. For this purpose, the Ministry of MSME may develop course modules for 'Training of Trainers Programme' through its National Entrepreneurship Development Institutes.

(Action: Ministry of MSME – 3 months)

5.8.5 The Ministry of MSME should expand the coverage under its existing entrepreneurship and skill development programmes by adopting innovative models like tieups with NGOs, educational and technical institutions, Entrepreneurship Development Institutes and e-learning. Infrastructure of specialized entrepreneurship/skill development institutions in government sector may also be suitably scaled up for this purpose.

(Action: Ministry of MSME – on-going)

5.8.6 Setting up of entrepreneurship/skill development in private sector be encouraged through various programmes/schemes of the Ministry of MSME. For this purpose, the Ministry of MSME may evolve a system to part compensate the cost of training through financial assistance to trainees. This could either be a new scheme or a component under any of the existing schemes for skill and entrepreneurship development.

(Action: Ministry of MSME – action initiated)

5.8.7 To establish a strong relationship between the students of ITIs, polytechnics, engineering and other institutes, the Apprenticeship Act should be reviewed and, if possible, enlarged so that MSEs are encouraged to provide on-the-job training. Draft amendments should be prepared in consultation with Member, Planning Commission and others within 3 months.

(Action: Ministry of Labour, HRD – 3 months)

5.8.8 The local Panchayati Raj Institutions should be involved in imparting the required training to the artisans and village industry workforce. The Ministry of MSME may firm up the proposal in consultation with the Ministry of Panchayati Raj/Rural Development.

(Action: Ministry of MSME – 4 months)

5.8.9 Awareness for innovative/new vocations based on the requirements of industry in domestic as well as international markets should be created to encourage youth in undertaking such activities.

(Action: Ministry of MSME – 3 months)

5.8.10 The above initiatives may require additional funding of Rs 500 crore for existing and new schemes.

Institutional Structures

- 5.9 There are multiple Government agencies engaged in the formulation of policy for the MSMEs and its implementation, often with overlapping schemes. While the Ministry of MSME has the overall mandate for promotion and development of MSMEs in the country, different ministries have their own policies and programs for the MSMEs in their sectors or functional areas. There is a need for a co-ordinated and comprehensive institutional framework for maximizing results of the various initiatives taken by the government. This framework also needs to be extended to the point of delivery with appropriate structures at the district level. The Task Force therefore recommends the following.
- **5.9.1** Government should set up an independent body at the national level for the promotion and development of MSMEs. This body may provide financial and managerial support for setting up of industrial estates/common facilities in partnership with the private sector, administer schemes for the unorganized sector, promote technology development (including clean technologies), provide marketing support and coordinate & disseminate information relevant to MSMEs.

Currently, the Development Commissioner (MSME) is the focal point for all policy matters, formulation of various promotional and developmental schemes as well as channelizing certain incentives and subsidies to the MSME sector, the Small Industries Development Bank of India (SIDBI) is the principal financial institution for financing and related promotional and development work for MSMEs, while the National Small Industries Corporation Limited

(NSIC) has been set up to facilitate MSMEs in procurement of raw material and helping in marketing of their products. In addition, various Ministries/Departments of the Government have promotional policies and developmental schemes for the MSMEs in their specific sector.

The proposed independent body could use the existing structures of aforesaid organizations with appropriate changes in their charter and mandate. The experience of other countries with such institutions (such as the Small Business Administration, in the United States) may be considered while deciding on the mandate and structure of the National level institution.

5.9.2 As institutional re-building is an intricate task, an Expert Group may reflect on this and come up with suitable recommendations on the structure and mandate of this body within a timeframe of three months and submit these to the Prime Minister. This Expert Group may be headed by Member, Planning Commission, and comprise of Deputy Governor, RBI; Secretary (MSME); DC (MSME); CMD SIDBI; and CMD NSIC.

5.9.3 At the district level, concrete steps will be taken to revamp the District Industries Centres (DICs) and ensure that they emerge as genuine agencies for the promotion of the sector. The DICs should be strengthened for providing comprehensive information on policies/schemes, project profiles on viable activities in the District, marketing support through organizing exhibitions, etc. A cell may be set up in DICs for facilitating revival/rehabilitation of sick MSMEs. The infrastructure of DICs should be used for running entrepreneurship and skill development courses. The DICs should also assist MSMEs in obtaining credit facilities as well as monitor the credit flow to MSMEs from the financial institutions.

5.9.4 A well thought out, properly funded Centrally Sponsored Scheme may be prepared to enable DICs to play a more active role in advocacy and capacity building for potential and existing entrepreneurs. This requires not only the strengthening of the DICs with provision of modern IT enabled communication facilities but also re-training of the human resources available with these institutions. Wherever viable, active involvement of the private sector for revamping the DIC network should be considered. Such re-engineering of the DICs may be supported by the Central Government by a grant of up to Rs. 1 crore per DIC.

(Action: Ministry of MSME – 6 months)

5.10 **Marketing:**

Implementation of a Public Procurement Policy for Micro & Small Enterprises

The Task Force was informed that Section 11 of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 includes a provision on 'procurement preference policy' to facilitate procurement of goods and services produced and provided by Micro and Small Enterprises by the Ministries and Departments of Central and State Governments, its aided institutions and Public Sector Enterprises. Further, internationally the MSEs are provided governmental support through targeted benefits/facilities such as earmarking of a specific percentage of government procurement for exclusive purchase from MSEs and assistance in marketing development, export promotion, etc. For instance, in USA, the Small Business Administration assigns annual goals for procurement by federal departments in consultation with them, for ensuring compliance of the legislated minimum procurement of 23 per cent from small businesses. Similarly, in South Africa, the 2000 Preferential Procurement Policy Framework Act provides that a preference point system must be followed in awarding public contracts, in order to promote the advancement of people historically disadvantaged by unfair discrimination on the basis of race, gender or disability.

A policy for public procurement from MSEs has been prepared by the Ministry of MSME after several rounds of consultation with the procuring Departments. This envisages an annual goal of procuring a minimum of 20 per cent of the total value of goods/services purchased by the Government from the MSEs. The policy would cover procurements by the Central Ministries/Departments, Central Public Sector Undertakings, Government projects as well as PPP projects.

It was also informed that several procuring departments and agencies impose restrictive conditions such as minimum turnover criteria, availability of specific machines, procurement of specific brands, etc. These result in ousting MSEs from the bidding process. Based on the discussions held, the Task Force recommends that:

5.10.1 The Ministry of MSME may bring up the policy before the Committee of Secretaries at the first instance. Further, the policy should include a mechanism for redressing the grievances of MSEs faced by them in Government procurement, including imposition of unreasonable conditions in the tenders. Further, a joint exercise with Ministry of Corporate Affairs may be carried out to evolve norms of procurement for the private sector units.

(Action: Ministry of MSME/ Min. of Corporate Affairs – action initiated)

Marketing facilitation to Micro, Small & Medium Enterprises (MSMEs)

The Task Force noted the Sub-Group recommendations with regard to strengthening of schemes like 'Consortia Formation', 'Brand Building', 'E-marketing through specialized MSME portals', 'Assistance in product designing & packaging', 'Assistance in publicity of MSME products' and holding of more domestic & international exhibitions in order to provide increased marketing support to the micro, small & medium enterprises in the country. It was also noted that some of the existing schemes being implemented by the Ministry of MSME are already catering to the needs of MSMEs in the areas of packaging, consortia formations and brand building, domestic and international exhibitions, etc. Based on the discussions held, the Task Force recommended that:

5.10.2 The Ministry of MSME may further strengthen and enlarge its existing schemes relating to product designing, packaging, setting up of marketing hubs, etc. in order to expand their reach and coverage of larger number of MSME units.

(Action: Ministry of MSME – on-going)

5.10.3 National Small Industries Corporation (NSIC) may increase its operations under Consortia Formation and Brand Building to 4-5 times of its existing level of activity once the next three years.

(Action: Ministry of MSME/NSIC – 6 months)

5.10.4 NSIC to set up a specialized Cell to collect and disseminate both domestic and international marketing intelligence in coordination with other relevant departments/agencies like Ministry of Commerce, India Trade Promotion Organization (ITPO), Federation of Indian Export Organization (FIEO), export promotion councils etc.

(Action: Ministry of MSME/NSIC – 3 months)

5.10.5 The NSIC may organize at least 6 sector-specific International level trade fairs in metropolitan cities each year, wherein MSMEs may be provided built-up space at concessional rates to transact B2B business. Further, ITPO may organize product-specific special international exhibitions for MSMEs with involvement of NGOs and MSME Associations.

(Action: Ministry of MSME/NSIC/ITPO – 3 months)

Distribution of Industrial Raw Materials to MSMEs

It was reported that MSME units have been facing difficulties in getting certain critical items of raw materials like iron & steel, aluminum, copper, zinc, plastic granules, bitumen,

packaging paper etc., due to sharp fluctuations in market prices, non-availability of small quantities of such materials at reasonable prices and non-availability of some of the materials in time. NSIC and other State Corporations have helped bridge the gap in the distribution of these raw materials which is substantially helping the MSMEs in making their operations competitive. Based on the discussions held, the Task Force recommended that:

5.10.6 The NSIC should develop a workable system for distribution of raw material to MSMEs in consultation with the MSME Associations and State agencies engaged in such activities.

(Action: Ministry of MSME/NSIC – 3 months)

Equity Support to NSIC

The Task Force noted that NSIC would require additional financial resources to implement the schemes/activities mentioned above. While NSIC could mobilize resources from the banks, it would require additional equity support to leverage its net-worth and raise additional market borrowings. Based on the discussions held, the Task Force recommends that:

5.10.7 The National Small Industries Corporation (NSIC) should be strengthened and made the apex organization for coordination of marketing support programmes for MSMEs. For this purpose, the Government may provide an equity support of Rs. 300 crore to NSIC.

(Action: Ministry of MSME – 3 months)

5.11 Special Measures for North-East Region and Jammu & Kashmir

North-East Region

5.11.1 To develop synergies among the various schemes of different Ministries/Departments w.r.t. MSME, a Committee under the Chief Secretary and comprising of representatives of different Central Ministries/ Departments may be constituted in consultation with M/o DONER.

(Action: Ministry of MSME/DONER – 3 months)

5.11.2 The development focus to shift on thrust areas with promising prospects, such as handicrafts, horticulture (including bamboo and bamboo application), textiles, live stock development, leather and food processing by pursuing the cluster development approach more vigorously.

(Action: Ministry of MSME – action initiated)

5.11.3 NSIC may evolve a scheme in consultation with DONER and the State Governments to organize exhibitions of NER products in major State capitals. Suitable incentives may be worked out to neutralize the cost of transport and travel.

(Action: Ministry of MSME/NSIC – 3 months)

5.11.4 The infrastructure of Indian Institute of Entrepreneurship, Guwahati be strengthened and its branches be opened in all the NE States with participation of the Central Government, State Governments and the industry.

(Action: Ministry of MSME – 3 months)

5.11.5 The recommendations of the Usha Thorat Committee Report on the Financial Sector Plan for NER, which are yet to be implemented or need further up scaling, action be undertaken expeditiously.

(Action: RBI – 3 months)

5.11.6 The Department of Financial Services to encourage banks/FIs to promote micro finance culture and the capacity building in NER.

(Action: DFS – no time lines)

5.11.7 The Task Force noticed the disparity in the utilization of subsidy under the NEIIPP-2007 between the States. The respective State Governments may look into the reasons and work out remedial measures.

(Action: State Governments – no time lines)

5.11.8 Under the NEIIPP-2007, incentives may be allowed for subsequent expansion also in the case of existing MSMEs. However, there will be a ceiling of investment in plant and machinery/equipment of Rs.10 crore and Rs.5 crore for manufacturing and services respectively.

(Action: DIPP – 2 months)

5.11.9 Under the Growth Centre Scheme implemented by DIPP, release of funds amounting to Rs. 33.35 crore for 5 functional centres is pending. Since the scheme has been discontinued from 1.4.2009, the Ministry of MSME may honour these commitments by providing funds from the Micro and Small Enterprises-Cluster Development Programme (MSE-CDP).

(Action: Ministry of MSME – 2 months)

5.12 Jammu & Kashmir

5.12.1 The special package for J&K is similar to the package for the NER under NEIIPP-2007 in respect of Interest Subsidy Scheme and Comprehensive Insurance Scheme. However, under Capital Investment Scheme, the subsidy provided under J&K package is 15% of the

investment in Plant & Machinery subject to a maximum of Rs.30 lakh, whereas under NEIIPP-2007 it is provided @ 30% of the investment in Plant & Machinery and there is no upper limit for claiming subsidy. For the MSME sector in J&K, the Capital Investment Subsidy Scheme may be implemented on the same terms and conditions as applicable to the North East Region under NEIIP, 2007 after modification. Further, specifically for the MSME sector, subsidy may be allowed for first and subsequent expansion till the total investment in plant and machinery reaches the upper ceiling of Rs.10 crore (manufacturing/Rs.5 crore (services) as per MSME norms.

(Action: DIPP – 2 months)

5.12.2 Presently in J&K the definition of 'new unit' and 'existing unit' is based on 'date of taking effective steps for setting up of a unit.' On lines of NEIIPP-2007, units in the MSME sector commencing commercial production after 14.6.2002 may be treated as new units irrespective of whether effective steps to set up these units were taken prior to 14.6.2002.

(Action: DIPP – 2 month)

5.12.3 With regard to 410 sick units, which became sick due to disturbed conditions in the state, the financing pattern of the restructuring/rehabilitation packages may include 70% as loan component from banks, 20% would be the interest free margin money from the Government and the balance 10% would be promoter's own contribution. A Rs.100 crore fund may be set up for this purpose from the Plan resources of the DIPP. The Funds may be provided to Jammu & Kashmir Development Finance Corporation (JKDFC) for channelising the same to the banks concerned.

(Action: DIPP – 4 months)

5.12.4 JKDFC may become more active in the State since JKSFC is not providing loans. Further, JKDFC may be made member lending institution under CGTMSE.

(Action: DIPP/Ministry of MSME/CGTMSE – 1 month)

5.12.5 Under the Growth Centre Scheme implemented by DIPP, release of funds amounting to Rs.5.75 crore for 1 functional centre is pending. Since the scheme has been discontinued from 1.4.2009, the Ministry of MSME may honour these commitments by providing funds from the Micro and Small Enterprises-Cluster Development Programme.

(Action: Ministry of MSME – 2 months)

5.12.6 Regarding revival of JKSFC, the State Government should come out with definite plan for this purpose which should be examined by DFS.

(Action: State Government/DFS – no time lines)

5.13 **Both NER & J&K**

5.13.1 To meet the genuine subsidy claims, the Department of Industrial Policy and Promotion may indicate the amount of pending claims and estimate the approximate provisions required for the current year. The Task Force makes a special recommendation for providing adequate budgetary provisions in RE 2009-10 for meeting all claims pending as on 31.3.2009.

(Action: DIPP – 1 month)

5.13.2 Regarding the particular demands of MSME Associations like refund of central excise, taxation of incentives, abolition of minimum alternative tax, exemption from income and service tax, etc., a Group in the Prime Minister Economic Advisory Council may be requested to examine these issues vis-à-vis the proposed GST system and suggest measures to mitigate the concerns of the MSMEs and their Associations within a month.

(Action: PMEAC – 1 month)

Appendix J. Clusters Identified for Redevelopment

7.5 NO INDUSTRIAL ACTIVITY ZONE

In order to maintain the city's ambience and pollution free environment in important and historic areas of Delb following locations are categorized as 'No Industrial Activity Zone' where no industrial activity including househo industry, shall be permitted.

- Lutyens' Bungalow Zone
- Civil Lines Bungalow Area
- (c) **Employer Housing**
- Group Housing (excluding Janata Flats) (d)

7.6 INDUSTRIAL AREA REDEVELOPMENT SCHEMES

The redevelopment schemes cover the following aspects:

- Modernization and upgradation of existing planned industrial areas; and,
- Redevelopment of areas, which have become industrialized over the period of the two Master Plans even though

7.6.1 EXISTING PLANNED INDUSTRIAL AREAS

These industrialized areas were developed in the 70's and over the years, have deteriorated considerably in terms of physical infrastructure and, in some cases deficiencies on this score have persisted in an overall sense. Besides, there have been changes in the nature of activities in some of the areas and there have also been demands for using part of the plots for activities, which could be classified as commercial. There may also be a need to see whether further densification is possible in terms of creating smaller plots by sub-divisions to accommodate a larger number of industries / units. Guidelines for redevelopment of existing industrial areas shall be framed within 2 years by DDA in consultation with GNCTD and the local body. Till such time, the existing sub divisions may continue.

There is, therefore, a need for modernization and up-gradation of the existing industrial areas with due regard to environmental considerations. Since most of the Industrial areas are located along the Mass Public Transport Corridors, there is also a need for optimizing the use around these areas through the process of redevelopment.

This process of upgradation and redevelopment will need to be carried out in a planned manner, and in a publicprivate partnership framework, in which the entrepreneurs contribute to the betterment and subsequent maintenance through suitable Operation and Maintenance arrangements.

7.6.1.1 Industrial activity shall be conducted at the following locations in the Industrial Use Zone, as indicated in the Land ZONES A to H:

Naraina Indl. Area, Jhandewallan Flatted Factory, Motia Khan Scheme, DCM Flatted Factory Complex, Shahzada Bagh Indl. Area, Gulabi Bagh Indl. Area, Rajasthan Udyog Nagar G.T. Road near Jahangirpuri, SMA Co-op. Indl. Estate G.T. Road near Jahangirpuri, S. S. Indl. Area G. T. road near Jahangirpuri, G. T. Karnal Road Indl. Area near Rana Pratap Bagh, Hindustan Prefab Ltd., Indl. Area near Shivaji Rly Stn. (Minto Road), Okhla Indl. Area Ph. I, II & III, Mohan Co-op Indl. Area, SISI Complex Okhla near Modi Flour Mills, Najafgarh Road Indl. Area near Zakhira, Kirti Nagar Indl. Area, Mayapuri Ph. I & II, Udyog Nagar Rohtak Road, Keshav Pur Leather Tannery Scheme (part of Service Centre) near Vikaspuri, Wazirpur Industrial Area, Lawrence Road Indl. Area, Mangolpuri Indl. Area Ph.I & II, Jhilmil Indl. Area, Patparganj Indl. Area, Friends Colony Indl. Area, Narela Indl. Estate, Bawana Indl. Estate, Khanjhawala Indl. Estate, PVC Bazar Tikri Kalan.

- Additional Industrial Areas will be indicated while preparing plans for Urban Extension Areas. (b)
- The approved Work-cum-Industries Centres, Service Centres etc., where development has been undertaken in accordance with the land use/earlier Master Plans, shall continue to be industrial subject to conformity with

7.6.2 REDEVELOPMENT OF UNPLANNED INDUSTRIAL AREAS

Besides the planned Industrial Areas, the Govt. of Delhi has notified following non-conforming clusters of industrial concentration having more than 70% plots in the cluster with industrial activities for redevelopment.

- 2, Shahdara
- Samai Pur Badli

- Jawahar Nagar
- 5. Sultanpur Mazra
- 6. Hastsal Pocket - A
- Naresh Park Extension. 7.
- 8. Libaspur
- 9. Peeragarhi Village
- 10. Khvala
- 11. Hastsal Pocket - D
- 12. Shalamar Village
- 13. New Mandoli
- 14. Nawada
- 15. Rithala
- Swarn Park Mundka
- 17. Haiderpur
- 18. Karawal Nagar
- Dabri 19.
- 20. Basai Darapur / //

The redevelopment process involves preparation of redevelopment plans for widening of roads, laying of services, development of open space and parking etc.

In practical terms, these areas are deficient in terms of services and endanger the environment. The redevelopment of such areas needs to be based on clearly defined parameters in terms of the types of industries which may be permitted, spatial planning norms and environment related conditionalities regarding the provision of essential infrastructure with the participation of the owners / entrepreneur in a systematic manner.

7.6.2.1 Norms for Redevelopment of clusters of Industrial Concentration in Non Conforming Areas

Keeping in view the existing realities, as well as the imperatives of planned development, the following norms will have to be followed in the redevelopment process.

Non-conforming clusters of industrial concentration of minimum 4 hectare contiguous area, having more than 70% plots within the cluster under industrial activity / use may be considered for redevelopment of area identified on the basis of actual surveys. After notification of such clusters by GNCTD, seteme will have to be prepared by the concerned local body (lend o died edge: As Proprietty of well less cons following norms/conditions:

- The cluster should have direct approach from a road of at least 18 m R/W.
- Formation of Society shall be mandatory to facilitate preparation of redevelopment plan, pollution control and environmental management, development of services and parking and maintenance.
- Only permissible industries having clearance from DPCC shall be permitted. (iii)
- Amalgamation and reconstitution of plots shall be permissible for redevelopment. (iv)
- All the units shall have to obtain the statutory clearances. The industrial units shall have separate electric (v) connections.
- (vi) Other stipulations shall include-
 - Minimum 10% area is to be reserved for circulation / roads / service lanes. (a)
 - Minimum 10% of semi-permeable surface for parking and loading / unloading areas. (b)
 - Minimum 10% of total area to be reserved for infrastructure requirements like CETP, Sub-Stations. Pump House, Fire Station, Police post, etc. as per the norms.
 - Preparation of:
 - -Plan for water supply from DJB / Central Ground Water Authority (wherever required) along with requirement for pumping stations, storage tanks, ground water recharging / rainwater harvesting.
 - Drainage plan as per norms.

