

**ISID**

**Institute for Studies in Industrial Development**

An institution of Indian Council of Social Science Research (Ministry of Education)

Policy Research to Foster India's Industrial Transformation

**256**

WORKING PAPER

# Status and Scope of Industrial Development in Aspirational Districts of India

Surya Tewari



November 2022

# **Status and Scope of Industrial Development in Aspirational Districts of India**

**Surya Tewari**

**ISID** **Institute for Studies in Industrial Development**  
An institution of Indian Council of Social Science Research (Ministry of Education)

4 Vasant Kunj Institutional Area, New Delhi – 110 070

*Phone:* +91 11 2689 1111 | *E-mail:* info@isid.org.in | *Website:* <https://isid.org.in>

**November 2022**

ISID Working Papers are meant to disseminate the tentative results and findings obtained from the ongoing research activities at the Institute and to attract comments and suggestions which may kindly be addressed to the author.

# Status and Scope of Industrial Development in Aspirational Districts of India

*Surya Tewari\**

---

*[Abstract: Industrial backwardness had been one of the main planks to define backwardness in the country. Over time many new parameters kept on adding and as of now the backward districts renamed as aspirational are defined in terms of poverty, education, health and nutrition, and basic infrastructure. These indicators have indirect link with industry through increase in productivity and employability. Using economic census three and six paper analyses manufacturing units and workers in these districts. Results show decline in the growth of manufacturing workers in many of these districts between 1990 and 2013. This may be indicative of outmigration as revealed from population census data. The analysis further shows low technology manufacturing to be predominant in these districts. As there is a focus on manufacturing development in these districts through various programmes and schemes it is important that manufacturing should particularly be monitored in aspirational district programme parameters.]*

---

**Keywords:** Backward, Aspirational Districts, Manufacturing, Economic Census.

## 1. Introduction

In the planning for India's economic development, industrial backwardness had been a major concern for policymakers. Efforts were made to define the backwardness and transform the economy through faster industrial development. In this direction a committee was set up by the Small-Scale Industries Board in 1960 to identify the backward areas in the country. In 1968, two working groups were set up by the Planning Commission. The first was set up under B D Pande for identifying backward areas and the other under N N Wanchoo to recommend fiscal and financial incentives to start industries in the backward areas (Chand and Puri, 1983). The Pande Committee identified backward districts in the states that were industrially backward. The parameters of per capita income, factory employment, levels of road, railway, and electricity infrastructure were used in identifying states. The districts in turn were identified on the basis of distance from cities or large industrial projects, poverty, density, availability of water, electricity, transport, and communication. On this basis, 238 districts were identified as backward in industrially

---

\* Assistant Professor, ISID, New Delhi, India; Email: surya@isid.org.in

**Acknowledgement:** Paper is a part of the ICSSR sponsored major project, 'Spatial Dynamics of Manufacturing Landscape in India – A District Level Comparative Analysis of Pre and Post Reform Contexts,' conducted at ISID.

backward states. As various incentives and benefits were to hinge on backward area demarcation, states also developed their measures of backwardness. In this process some states chose all their districts as backward.

While benefits from state government were mainly in the form of sales tax, concessional loans, etc., from the central government came the larger quantum in the form of capital investment subsidy, transport subsidy, concessional finance, and income tax concessions. The schemes for setting up of industrial estates, public sector units, rural industries project, and industrial licensing were also directed towards backward regions. However, the impacts of such initiatives were very limited in backward areas (GOI, 1980).

Over the years, assistance to backward areas continued to be provided by Union Government through plan (Planning Commission) and non-plan expenditures (Finance Commission transfers which may be general or specific; and specific transfers from central government for Centrally Sponsored and Central Sector Schemes<sup>1</sup>).

In recent times, one of the important plan assistances for backward districts was through Rashtriya Sam Vikas Yojna (RSVY). The scheme was launched by the Planning Commission in 2004 in 147 backward districts and was meant for enhancing employment opportunities, raise agricultural productivity, and to fill in the gaps in critical infrastructure (Planning Commission, 2010). The scheme was later subsumed under Backward Region Grant Fund (BRGF), launched in 2007 (GOI, 2007). The BRGF was launched specifically for supplementing development flows in 250 backward districts.

The BRGF scheme was closed in Financial Year 2015–16 on the adoption of 14<sup>th</sup> Finance Commission recommendation of greater devolution of taxes (from 32 to 42%) to the states from 2015–16 onwards. With that the Planning Commission was also dissolved in 2015–16 and the distinction between plan and non-plan assistance was done away with (15 FC, 2020). Central government assistance, however, continues to be available to backward areas through centrally sponsored, or central sector schemes having component for backward regions (PIB, March 23, 2018). States are also expected to finance and design the developmental schemes for their backward regions (PIB *a*, 2021). Identification of backward regions therefore would remain an important policy exercise.

---

<sup>1</sup> Centrally sponsored schemes are implemented by state governments in sectors falling in the State and Concurrent Lists of the Constitution. In these schemes, ordinarily, funding is shared between the centre and states. Central Sector Schemes are directly implemented by the central ministries. Ordinarily, these are in sectors falling in the Union List of the Constitution and are implemented through entities working directly or under the direct supervision of the Union Government and are funded 100% by the Union Government (NITI Aayog, 2015). Under Centrally Sponsored Schemes, there are three types of schemes, namely core of the core, core, and optional. Core of the Core Schemes are legislatively backed or are designed to subserve the vulnerable sections of our population; Core schemes have compulsory participation by states; and, in optional participation amongst the optional schemes is by choice. As per Expenditure Profile 2022-23, there are 50 Centrally Sponsored Schemes and 740 Central Sector Schemes (MoF, 2022)

In 2018, NITI Aayog came up with a list of backward districts. The list included 117 districts identified on the basis of composite index comprising variables relating to poverty, health and nutrition, education, and basic infrastructure (NITI Aayog, 2018a).<sup>2</sup> These districts were called as Aspirational Districts and a programme named 'Transformation of Aspirational Districts' was launched. The programme aims at evaluating the performance of aspirational districts across 49 variables covered through various schemes and pertains to 5 monitoring parameters viz. health and nutrition, education, agriculture and water, financial inclusion and skill development, and basic infrastructure such as pucca house, latrines, potable water, roads and electricity connection (see Appendix Table A1). At the same time, the programme also recommends steps for better outcomes. For transforming the districts, the programme focuses on convergence of central and state schemes, collaboration between centre, state, district, development partners, and citizens, and competition between districts. The funds available under various central and state schemes constitute the resource base for transformation. Additionally, there is a provision for performance grant (total 7 in number) per month of Rs 10 crore, 5 crore, and 3 crore respectively to the best and the second best overall, and the best with respect to each of the monitoring parameters (Rajya Sabha, 2022a).

The Aspirational Districts Programme (ADP) has not based the identification of districts on industrial levels and infrastructure, but as it gives more weightage to health, nutrition, education there is indirect linkage with industry through improved economic productivity and employability of people. An estimate (Kapoor and Green, 2020) shows that a decline in severe acute malnutrition among children in aspirational districts will have economic gain of Rs 1.43 lakh crore through its effects on productivity and lifetime earnings. There is no denying that in the long run social advancements would lead to diverse work opportunities that would later fortify social progress, too.

It is also well established that diverse work opportunities could be harnessed at best via industrialisation. So, in the long run for Aspirational District Programme to yield better outcomes, the aspect of industrial development may explicitly be added and evaluated. As there are schemes for manufacturing development running in these districts, the same can be monitored and promoted.

In light of the above, this paper seeks to know the status of manufacturing in the aspirational districts of India, and to find if there is any linkage between manufacturing development and socioeconomic transformation envisaged through the programme.

The paper is based on Third (1990) and Sixth (2013) Economic Censuses database and the composite score of aspirational districts. The outline of the paper is as follows. The next section discusses the data and methods. Section three analyses dynamism in aspirational districts with respect to manufacturing units and workers. Section 4 evaluates districts

---

<sup>2</sup> West Bengal opted out from the programme. Hence, the number of districts reduced to 112. The five districts identified from West Bengal were Birbhum, Dakshin Dinajpur, Nadia, Malda, and Murshidabad.

with respect to Sixth Economic Census database on the one hand and NITI Aayog database on the other. Section 5 highlights some of the initiatives in aspirational districts that have positive relation with manufacturing development. Section 6 sums up the paper.

## 2. Data and Methods

Two sets of analysis are undertaken in the chapter. Change in manufacturing units and workers between EC-3 (1990) and EC-6 (2013) is undertaken in part one. There are 90 districts in this part of the analysis. The aspirational districts of Chhattisgarh and Jammu Kashmir had to be omitted in the absence of their data for EC-3.

In the second part, the relationship between manufacturing score of aspirational districts and the aspirational composite score is examined. The analysis is based on the hypothesis that districts with better performance in aspirational score card (composite score) would have better performance with respect to manufacturing activity, too. This part of the analysis is carried out on EC-6 database with the number of districts being 110.

As of now there are 112 districts in the aspirational district programme (see Appendix Table A2). In the first part of the analysis, however, there are 90 districts. These 90 districts represent 100 aspirational districts. The 12 districts that had to be excluded are Chhattisgarh (10) and Jammu and Kashmir (2); they were excluded due to absence of data for EC-3. The number of districts reduced to 90 as 1991 district maps formed the basis for the analysis.

While some of the districts remain the same between EC-3 and EC-6, some show area in excess of the area under an aspirational district. This is because to undertake comparison between EC-3 and EC-6, the district boundaries taken were as existing at the time of EC-3. In this process while 35 aspirational districts did not witness any change in area between EC-3 and EC-6, and 16 aspirational districts were combined with 12 other aspirational districts. The former were carved out from the latter. With this merging, area of 12 districts became almost complete.<sup>3</sup> By following this exercise, 63 (35+12+16), aspirational districts are represented through 47 (35+12) districts. There are, however, 43 districts that show area in excess of what is there in aspirational districts. To illustrate, to show Banka in Bihar we have to take Bhagalpur district in the absence of possibility to extract Banka from EC-3 database as tehsil codes are not provided. Random division of Bhagalpur data of EC-3 between Banka and Bhagalpur may also not be proper, as it may or may not pertain to the

---

<sup>3</sup> The only exception is Barpeta in Assam and Hazaribagh in Jharkhand. In the former, 0.4% area is extra and in the latter 22%. Barpeta district was divided into three parts between Censuses 1991 and 2011; these are Barpeta, Baksa, and Chirang. While Barpeta and Baksa are aspirational districts, Chirang is not. To bring districts with reference to Census 1991, Chirang area from Barpeta is also combined with Barpeta. In the case of Hazaribagh, the district was divided into three parts, Hazaribagh, Chatra, Ramgarh, and Koderma. While the former three are aspirational, the last is not.

district. So, a better alternative was to show the parent district with respect to these 43 districts. These 43 districts represent the same number of aspirational districts with six in the list represented by two to three districts, four of which have representation in 47 districts as well.

The 90 aspirational districts accounted for 8 lakh units and 27 lakh workers in EC-3. In EC-6, the number rose to 13 and 36 lakhs respectively.<sup>4</sup>

The part one of the analysis is given in section 3. In this part shares and growth of manufacturing units and workers are analysed. Both the variables are also analysed with respect to 2-digit of manufacturing and manufacturing classified as per technology. Technological classification is based on Rijesh, 2020 (Appendix Table A3). Location Quotients (LQ) are computed to estimate the degree of specialisation achieved in terms of manufacturing units and workers. LQ measures specialisation of each spatial unit vis-à-vis region with respect to interested variable. LQ is calculated, say, for low technology (LT) manufacturing unit as,

The 90 aspirational districts accounted for 8 lakh units and 27 lakh workers in EC-3. In EC-6, the number rose to 13 and 36 lakhs respectively.<sup>5</sup>

The part one of the analysis is given in section 3. In this part shares and growth of manufacturing units and workers are analysed. Both the variables are also analysed with respect to 2-digit of manufacturing and manufacturing classified as per technology. Technological classification is based on Rijesh, 2020 (Appendix Table A3). Location Quotients (LQ) are computed to estimate the degree of specialisation achieved in terms of manufacturing units and workers. LQ measures specialisation of each spatial unit vis-à-vis region with respect to interested variable. LQ is calculated, say, for low technology (LT) manufacturing unit as,

$$LQ_i = \frac{\frac{MU_i}{TU_i}}{\frac{MU}{TU}}$$

where,  $MU_i$  = LT manufacturing units in aspirational district i,  
 $TU_i$  = total manufacturing units in aspirational district i,  
 $MU$  = LT manufacturing units in all aspirational districts,  
 $TU$  = total manufacturing units in all aspirational districts.

In LQ, value of unity denotes aspirational district performance equals average across these districts. Values more than unity indicate better than average performance with higher and

---

<sup>4</sup> The figures are on the higher side as many districts on merging with parent districts contain area excess of current districts. As per EC-6, including two districts of Jammu & Kashmir, the total units and workers are around 10 lakh and 23 lakh respectively. Here also, the figure is exceeding as to show three of the Aspirational districts of Telangana, their parent districts are used.

<sup>5</sup> The figures are on the higher side as many districts on merging with parent districts contain area excess of current districts. As per EC-6, including two districts of Jammu & Kashmir, the total units and workers are around 10 lakh and 23 lakh respectively. Here also, the figure is exceeding as to show three of the Aspirational districts of Telangana, their parent districts are used.



increasing values indicating greater or increasing degree of specialisation. Vice versa is the case when values are less than unity. LQ values are divided into five categories, <1 denoting very low to low specialisation, 1-2 moderate, 2-3 high and  $\geq 3$  very high specialisation.

In the second part of the analysis, presented in section 4, there are 110 districts representing all 112 aspirational districts. Two aspirational districts of Chhattisgarh viz. Sukma and Kondagaon are represented through Dantewada and Bastar districts, respectively. The two were carved out post Census 2011. Also, in order to cover aspirational district Jayashankar Bhupalpally in Telangana, one additional district Karimnagar has been added in EC-6 database. Jayashankar Bhupalpally district was carved out in 2016 and includes parts of Warangal and Karimnagar districts. To represent this district, EC-6 data of Warangal and Karimnagar district has been combined. Similarly, Kumuram Bheem Asifabad districts in Telangana is represented through Adilabad district from which it was carved out in 2016. Similarly, to show Bhadradi Kothagudem, Khammam district is used from which the former is carved out. Likewise, Namsai district of Arunachal Pradesh has been shown through Lohit district from which it was carved out post Census 2011, in 2014 to be specific.

To carry out the comparison of manufacturing score vis-à-vis monthly delta composite score, values of manufacturing units and workers have been transformed in the same framework using the formula:

$$S_i = \frac{x - \min}{\max - \min}$$

where,  $S_i$  is standardised score for  $i$  variable (unit or worker); value ranges from 0 to 1;

$x$ , district value of the variable being standardised;

$\min$ , minimum value of the variable across all the districts;

$\max$ , maximum value of the variable across all the districts.

The interpretation of these values is that higher the score, less backward is the district with respect to manufacturing units and workers. The composite score values of aspirational districts are available in monthly delta score values of each district since 2018. The first such data available is of April 2018. Though the two data sets have time gap of five years, the rough approximation could be made. Also, as the focus on these districts became intense with the start of the programme, not much change is expected from the past in at least in start year of the programme. To give a brief about monthly delta composite score, it is computed by using 81 data points relating to 49 indicators across five parameters of education, basic infrastructure, health and nutrition, skill development and financial inclusion, agriculture and water resources (NITI Aayog, 2018b, 2018c, 2018d). See Appendix Table A1 for distribution of data points across themes. To make the number of aspirational districts comparable with EC-6 districts, Sukma is combined with Dantewada, and Kondagaon with Bastar district and average composite score of these districts is used. In this part, size classification of units is also undertaken based on number of hired

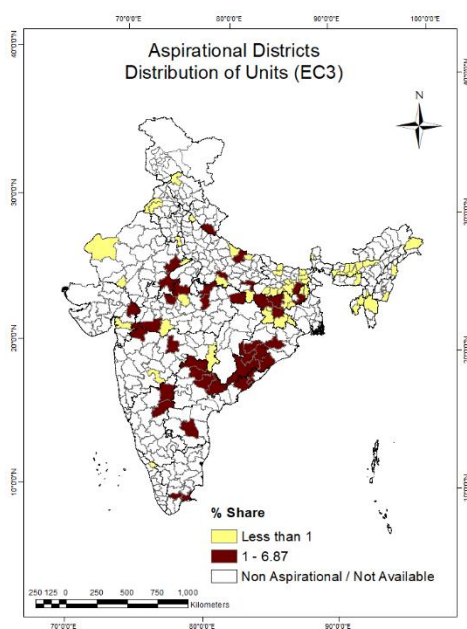
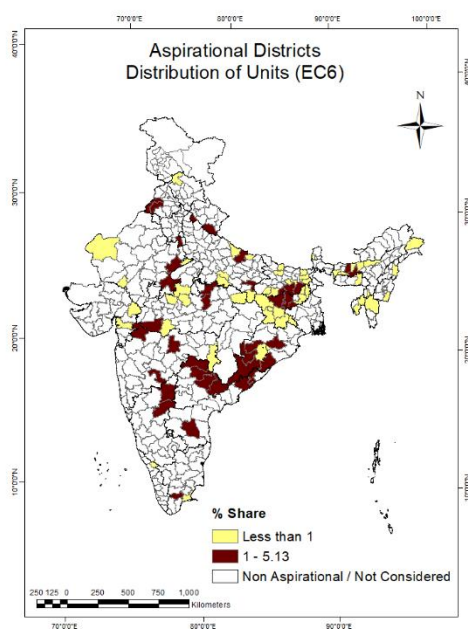
workers, following Mehrotra and Giri (2019). To identify specialisation of these districts, technology wise grouping of 2-digits of manufacturing is also done and LQs are computed. Population census 2011 is also used in this part wherever required.

In Section 5 of the paper the analysis of educational infrastructure is undertaken. The section discusses initiatives pertaining to monitoring parameters of ADP that may have role on manufacturing development. This includes education, basic infrastructure, health and nutrition, skill development and financial inclusion, agriculture and water resources. Education, skill development and financial inclusion are particularly important for manufacturing. As far as skilling is concerned, there are skills that pass from one generation to another and for which no educational qualification is as such required. However, for generating new sets of entrepreneurs' education and skilling is important. Even for traditional learners some recognition is important. For which some training is required. Keeping that in mind, variables analysed are schools (primary to senior secondary), degree colleges, engineering colleges, polytechnic, and vocational training schools. The data is culled from Town and Villages Directories of Census 2011. For meaningful comparison the variables are converted into z-score and an average composite z-score is computed. Z-scores are standard scores with mean as 0 and standard deviation (SD) as 1. The value of the z-score ranges from -3 SD to +3 SD, covering 99.73% of the data. The average z-score obtained is classified into two groups, positive and negative with positive meaning value above mean value and negative means below mean. Higher the z-score, better is the level of the variables considered.

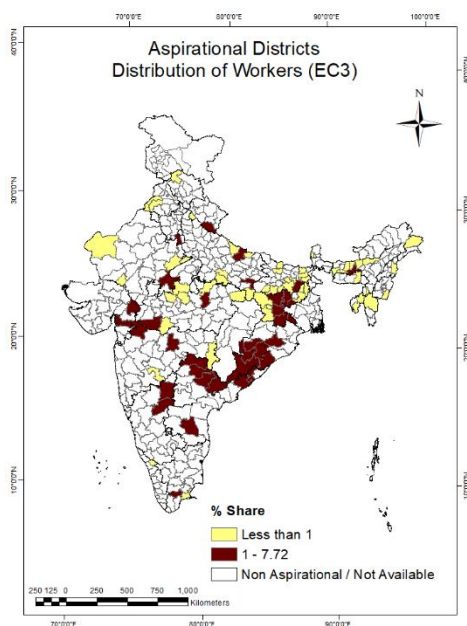
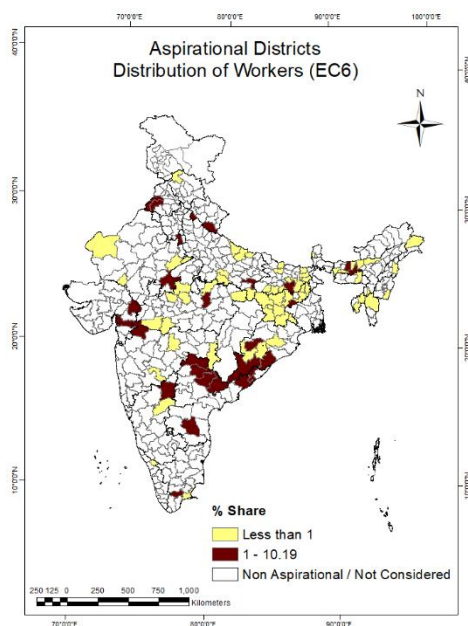
All sets of analysis are conducted within the group, i.e., at the level of aspirational districts. For example, the share of each of the aspirational district is from the total of the aspirational districts in the country. The programme in itself focuses on competition among districts within the group making the method applicable. The monthly delta ranking and baseline rankings that are an integral part of the programme indicate towards leading and lagging districts within the group. The competition is considered to foment convergence and collaboration, and is thus positive in nature.

### **3. Manufacturing Dynamism in Aspirational Districts**

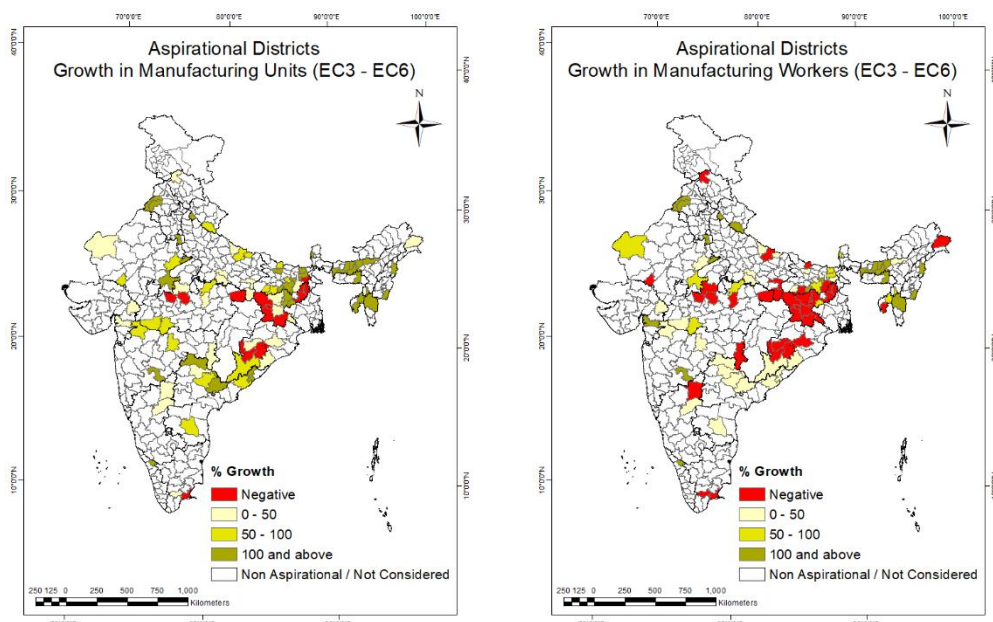
Of the total number of manufacturing units and workers in the aspirational districts, the distribution between districts is roughly the same. Most of them account for less than one percent share of the total in these districts (Figures 1 to 4). Between 1990 and 2013, distribution appears stable with respect to units. With respect to workers, the decline in share is noticed in few districts. These districts are mainly in Jharkhand and Odisha. Rise in the share of other districts may have caused the decline in these states. Interestingly, 48 districts of the total 90 experienced decline in their workers' share; remaining others have change of roughly around less than one percent. The growth rate in fact has gone down in many of the districts, with Jharkhand and Odisha, too, having witnessed the same (Figure 6).

**Figure 1: Distribution of Units in EC-3 (1990)****Figure 2: Distribution of Units in EC-6 (2013)**

Source: Constructed using EC-3 & EC-6 Database.

**Figure 3: Distribution of Workers in EC-3 (1990)****Figure 4: Distribution of Workers in EC-6 (2013)**

Source: Constructed using EC-3 & EC-6 Database.

**Figure 5: Growth Rate Units (1990–2013)****Figure 6: Growth Rate Workers (1990–2013)**

Source: Constructed using EC-3 & EC-6 Database.

Turning to type of manufacturing activity predominant in these districts, the analysis reveals food products as predominant manufacturing activity (Table 1). It accounts for around 20% share in units as well as workers. Textile, wood & wood products, and non-metallic minerals are other important manufacturing groups. Tobacco and fabricated metal manufacturing is also relatively important. With the exception of workers in Tobacco manufacturing, all other have seen a decline between 1990 and 2013, with considerable decline in textiles, wood and non-metallic minerals.

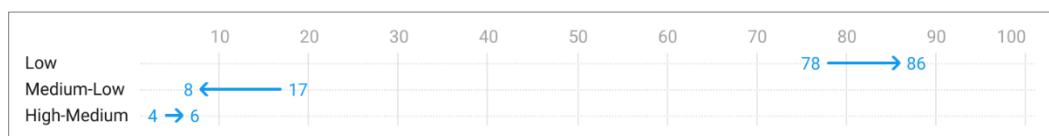
Furniture making and other manufacturing also appear relatively important, but their respective share is around five percent. Both have seen an increase between 1990 and 2013. Wearing apparel, which involved miniscule share in 1990, has seen considerable increase by 2013. All these dominant manufacturing activities are basically low technology in nature. The aggregation of manufacturing groups by technology substantiates high share of low technology manufacturing (Figures 7 and 8).

Figures 7 and 8 depict percentage share (rounded off) with start point of arrow depicting 1990 and end point 2013. In 1990, 78% of the units and 66% of the workers pertained to low technology that increased to 86 and 71% respectively in 2013. The share of high-medium technology is also found to have increased with respect to both units and workers (see Appendix Table A3 for technology types). However, the share of workers being relatively higher than the number of units may be indicative of the existence of large-sized units with their total number being small.

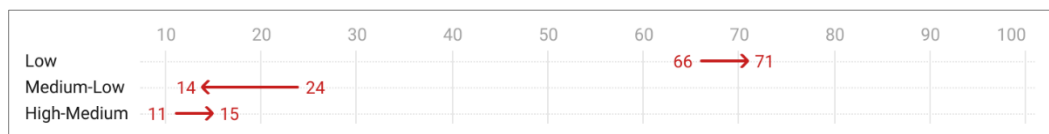
**Table 1: Percent Distribution of Units and Workers Across Manufacturing Groups EC-3 (1990) & EC-6 (2013)**

Code	Description	Units		Workers	
		EC-3	EC-6	EC-3	EC-6
10	Food Products	22.05	21.53	17.37	17.78
11	Beverages	4.35	3.65	2.84	2.49
12	Tobacco Products	6.94	8.66	8.16	5.60
13	Textiles	17.63	11.44	19.01	15.10
14	Wearing Apparel	0.11	19.31	0.09	12.33
15	Leather and Related Products	1.70	1.05	0.91	0.93
16	Wood and Wood Products, except Furniture	17.21	7.68	10.97	5.50
17	Paper and Paper Products	0.23	0.54	0.57	0.80
18	Printing and Reproduction of Recorded Media	0.87	1.03	1.33	1.26
19	Coke and Refined Petroleum Products	0.05	0.16	0.79	0.18
20	Chemicals and Chemical Products	1.42	0.86	5.08	3.85
21	Pharmaceuticals, Medicinal Chemical, and Botanical Products	0.05	0.50	0.27	1.43
22	Rubber and Plastic Products	0.33	0.56	0.69	1.62
23	Other Non-metallic Mineral Products	10.22	2.96	12.97	6.07
24	Basic Metals	0.54	0.94	3.93	1.85
25	Fabricated Metal Products, except Machinery and Equipment	6.13	3.61	5.44	4.05
26	Computer, Electronic and Optical Products	0.07	0.91	0.15	1.31
27	Electrical Equipment	0.22	0.91	0.51	1.48
28	Machinery and Equipment n.e.c	0.39	0.16	0.81	0.85
29	Motor Vehicles, Trailers, and Semi-trailers	0.03	0.44	1.07	3.74
30	Other Transport Equipment	0.07	0.11	0.25	1.40
31	Furniture	3.74	4.46	2.08	3.43
32	Other Manufacturing	3.58	6.73	2.33	5.57
33	Repair and Installation of Machinery and Equipment	2.07	1.80	2.38	1.36
<b>All</b>	<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Computed using EC-3 and EC-6 database

**Figure 7: Percent Share of Manufacturing Units by Technology EC-3 (1990) & EC-6 (2013)**

Source: Computed using EC-3 and EC-6 database

**Figure 8: Percent Share of Manufacturing Workers by Technology EC-3 (1990) & EC-6 (2013)**

Source: Computed using EC-3 and EC-6 database

Most of the districts have attained up to moderate levels of specialisation with each of the technology group (Tables 2 and 3). In medium-low and high-medium technology groups, very few have also attained higher levels of specialisation.<sup>6</sup>

**Table 2: Location Quotient Units: Number of Districts by Technology Groups**

Technology Type	Very low to low		Moderate		High		Very High	
	(<1)		(1-2)		(2-3)		(≥3)	
	EC-3	EC-6	EC-3	EC-6	EC-3	EC-6	EC-3	EC-6
Low	54	38	36	52	0	0	0	0
Medium-Low	43	42	40	41	7	6	0	1
High-Medium	62	60	15	19	7	9	6	2

Source: Computed using EC-3 and EC-6 database.

**Table 3: Location Quotient Workers: Number of Districts by Technology Groups**

Technology Type	Very low to low		Moderate		High		Very High	
	(<1)		(1-2)		(2-3)		(≥3)	
	EC-3	EC-6	EC-3	EC-6	EC-3	EC-6	EC-3	EC-6
Low	30	21	60	69	0	0	0	0
Medium-Low	40	51	44	32	6	5	0	2
High-Medium	74	80	9	3	5	4	2	3

Source: Computed using EC-3 and EC-6 database.

<sup>6</sup> For individual manufacturing group, see Appendix Tables A4 and A5.

#### 4. Manufacturing and Socio-Economic Development

The general comparison of manufacturing activity and level of composite score show spatial correlation (Table 4). Six districts are common in top ten districts with respect to manufacturing score and composite score.

**Table 4: Sixth Economic Census – Top Ten Aspirational Districts in Manufacturing**

<i>Aspirational District</i>	<i>State</i>	<i>Score Units</i>	<i>Score Workers</i>	<i>Composite Score</i>
Jayashankar Bhulapally	Telangana	1	1	63.9
Asifabad	Telangana	0.55	0.38	-
Vishakhapatnam	Andhra Pradesh	0.49	0.6	58.6
Virudhunagar	Tamil Nadu	0.41	0.78	55.3
Damoh	Madhya Pradesh	0.4	0.28	-
Vizianagaram	Andhra Pradesh	0.37	0.44	60.3
Kadapa	Andhra Pradesh	0.35	0.35	61.7
Bhadradri Kothagudem	Telangana	0.26	0.25	-
Barpeta	Assam	0.22		-
Osmanabad	Maharashtra	0.17		56.8
Haridwar	Uttarakhand		0.68	-
Udham Singh Nagar	Uttarakhand		0.42	-
Ramanathapuram	Tamil Nadu			58.6
Raichur	Karnataka			56.7
Dohad	Gujarat			55.7
East Singhbhum	Jharkhand			55.7

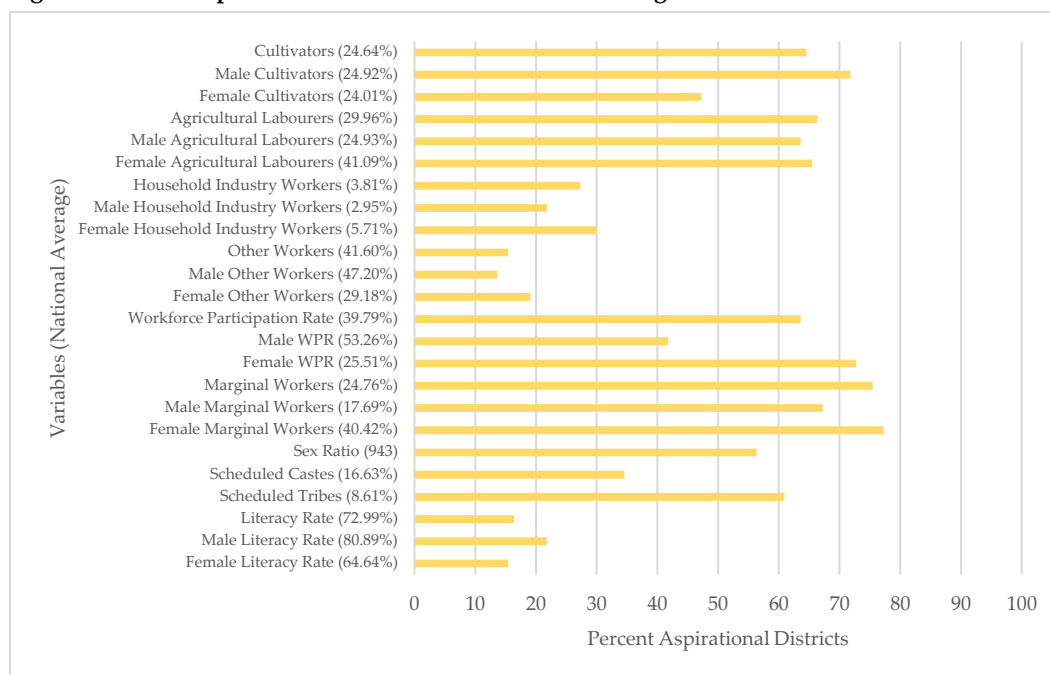
Source: EC6 from MoSPI, GOI; Composite Score is of May 2018 from NITI Aayog, GOI.

Statistically, there emerges significantly positive correlation between composite score and manufacturing scores. The  $r$  values respectively are 0.4291 ( $p$  0.01) and 0.4336 ( $p$  0.01) of composite score and units on the one hand and composite score and workers on the other. However, the explained variation in units and workers taken as an outcome of better composite score is low at 0.1841 and 0.1880 with  $\beta$  values as 0.0086 and 0.0103, respectively. The reason for the same could be low diversification in these districts towards manufacturing and services. The huge dependence of these districts on primary activities is observed from the analysis of Census Data (Figure 9). Figure 9 presents the percentage of aspirational districts with values higher than national average with respect to the variables considered. The national level averages are provided in the brackets on the vertical axis. Other workers that include manufacturing workers other than household, and workers in services is low in these districts. Even the household manufacturing is low in these districts.

In Figure 9, one could also see higher workforce participation rates of females in these districts. Around three-fourth of these districts record female workforce participation higher than national average. This depicts high feminisation of workforce in these districts. This together with majority districts showing higher than national average for sex ratio indicative of outmigration from these districts.

There is also a high proportion of marginal workers (working for less than 6 months) in these districts as 3/4 of the districts record their marginal workers proportion above national average of 24.76%. This not only indicate lack of work for most part of the year but also of circular migration. Male members may be returning at the time of harvest season that raises their ratio in marginal workers. The higher proportion of aspirational districts with males cultivators and agricultural labourer also needs to be considered. Srivastava *et al.* (2020) demonstrates this aspect in their study of circular migrants. The study found the number of circular migrants – who move from one destination to another for a maximum period of six months – to be around 22 million between 2006–07 and 2011–12, with 20 million in rural and remaining in urban. State-wise they found it highest from Bihar followed by Madhya Pradesh, Chhattisgarh, Andhra Pradesh, West Bengal, and Rajasthan. It is important to note that Bihar has one of highest number of districts under Aspirational District Programme. So as Madhya Pradesh and Chhattisgarh (see Appendix Table A2).

**Figure 9: Percent Aspirational Districts Above National Average**



Source: Computed using Census of India Primary Census Abstract, 2011.

Note: The proportions of different categories of workers are from total workers, and male and female proportions are from male and female total workers, respectively.



The traditional economy is also reflected in the type of manufacturing practiced. The classification of units by size class of workers shows 99% units to be micro in nature with less than ten hired workers (Table 5). There are only 0.1% units which are large, employing 100 and more hired workers. Where are these large units located? Fifty percent of these units are concentrated only in three districts of Hardwar, Udham Singh Nagar in Uttarakhand and Virudhnagar in Tamil Nadu. Majority have either one or no such unit. Almost all the districts have 98 to 99% units as micro units. See Appendix Table A6 for size class distribution of units across all aspirational districts.

**Table 5: Manufacturing Units by Size Classification of Hired Workers**

Size Class (No. Hired Workers)	Number of Units	% Share
Micro (0–10)	9,45,672	99.0
Small (10–20)	3,624	0.4
Medium (20–100)	4,518	0.5
Large (100 & Above)	1,106	0.1
<b>Total</b>	<b>9,54,920</b>	<b>100.0</b>

*Note:* Size class adopted from Mehrotra & Giri, 2019.

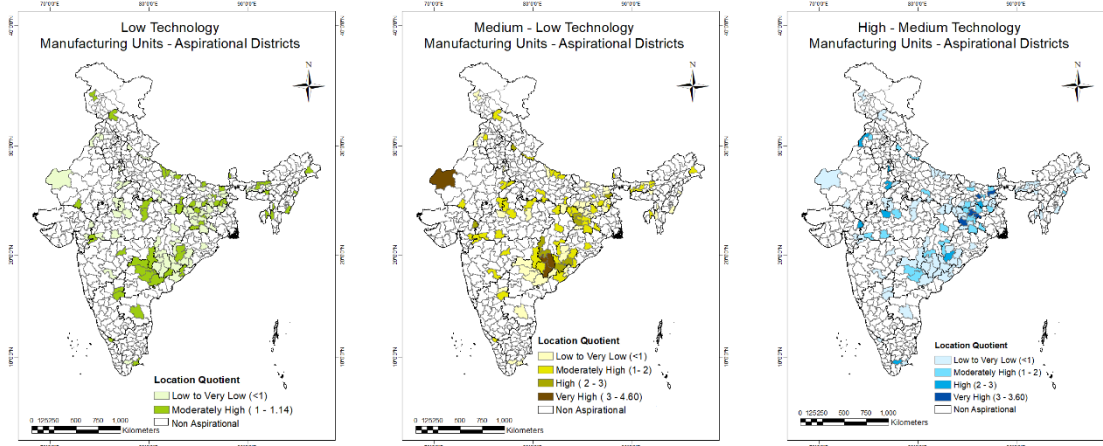
*Source:* Aspirational Districts data extracted from EC-6.

However, manufacturing is not without scope. There are specific districts that can be intensely focussed for promoting manufacturing by harnessing their existing advantages. Figures 10 and 11 depict LQ of units and workers by type of technology for 2013. In the case of low technology that comprises food products, beverages, tobacco, textile, wearing apparel, and wood & paper products, in the states of Bihar, Jharkhand, and Odisha, districts are mix of low to moderate level of specialisation with respect to units. With respect to workers, many of the districts show moderate level of specialisation. In case of Northeast all but two have moderate level of specialisation.

In the case of medium-low technology, there are a few districts that depict very high levels of specialisation, these are aspirational districts in Chhattisgarh and Jaisalmer in Rajasthan. Medium-low technology comprises metals, non-metals, fabricated metals, coke & refined petroleum. All these districts have basically high percentage of units and workers in non-metals and fabricated metal. Many other districts in medium-low technology show moderate high specialisation.

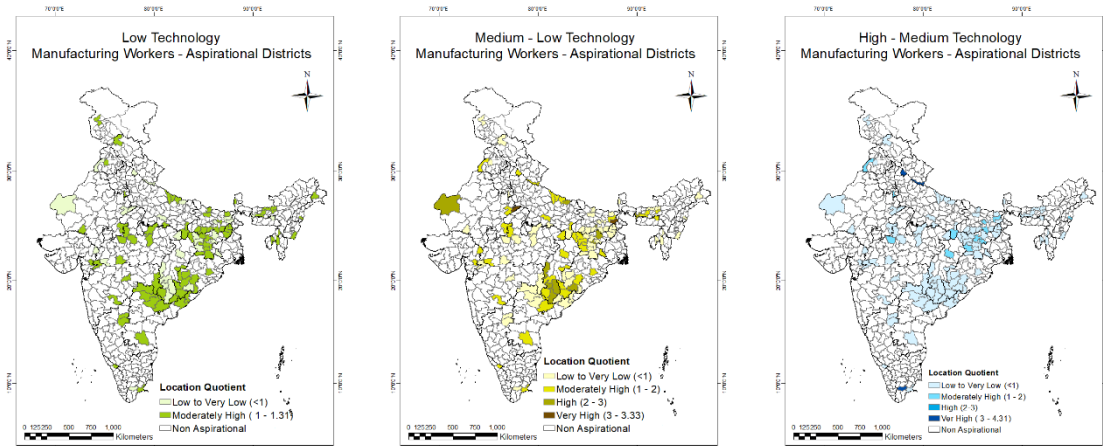
In high-medium, few of the districts show moderately high to high specialisation with respect to units, while in the case of workers, majority is show low specialisation. Some of the prominent districts with respect to units are in Jharkhand and Bihar. Virudhunagar district in Tamil Nadu and Haridwar, Udham Singh Nagar of Uttarakhand as also Firozpur in Punjab are prominent with respect to higher specialisation for both units and workers.

**Figure 10: Location Quotient: Units by Technology Types EC-6 (2013)**



Source: Constructed using EC-6 database.

**Figure 11: Location Quotient: Workers by Technology Type EC-6 (2013)**



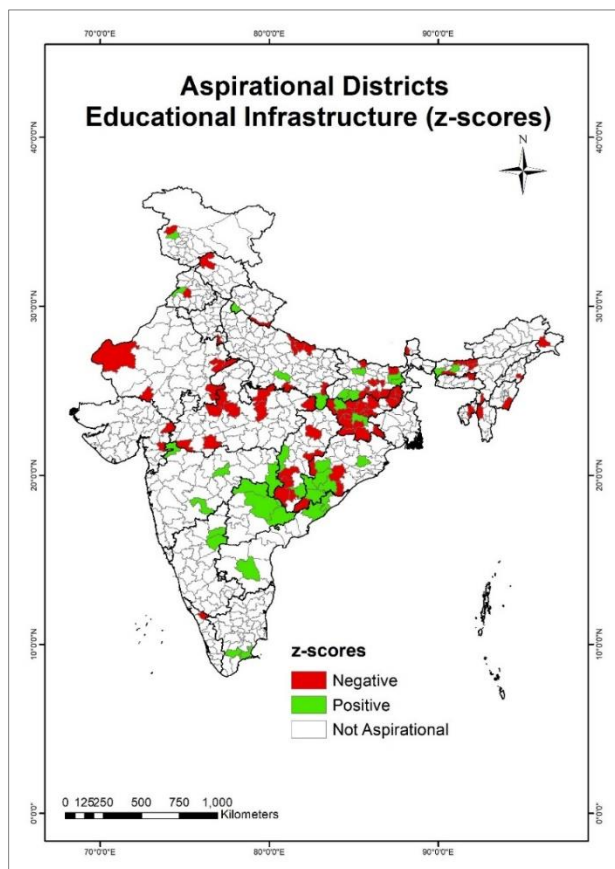
Source: Constructed using EC-6 database.

## 5. Initiatives that may Enhance Manufacturing Development

As already mentioned, in aspirational district programme five indicators are monitored. These pertain to education, basic infrastructure, health and nutrition, skill development and financial inclusion, agriculture and water resources. A number of schemes are available across these themes in aspirational districts (MHA, 2019). While the larger development of these districts will promote economic development, there are few schemes pertaining to education, skill development and financial inclusion that will have a direct impact on manufacturing growth.

As far as status of educational infrastructure in these districts is concerned, of 110 districts, 74 have negative z-score. The all-India distribution of z-scores in terms of positive and negative values is given in Figure 12.

**Figure 12: Educational Infrastructure in Aspirational Districts (Census 2011)**



Source: Constructed using Town and Village Directories of Census 2011.

The positive score reached 4.96 in Jayashakar Bhupalpally (represented by taking Karimnagar and Warangal together), followed by Muzzafarpur in Bihar with the z-score of 2.90. There are eight other districts with the score of 1 and above. All the aspirational districts (three each) in Andhra Pradesh and Telangana have score of 1 and above. Apart from Muzzafarpur in Bihar, the remaining are Haridwar (Uttar Pradesh), Koraput (Odisha,) and Raichur in Karnataka.

The distribution in Figure 12 when translated into figures brings out state-wise results as given in Table 6.

**Table 6: Level of Educational Facilities in Aspirational Districts (2011)**

<i>State</i>	<i>Total Aspirational Districts</i>	<i>z-score</i>	
		<i>Positive</i>	<i>Negative</i>
Jharkhand	19	2	17
Bihar	13	5	8
Odisha	10	6	4
Chhattisgarh	8	2	6
Madhya Pradesh	8		8
Uttar Pradesh	8	2	6
Assam	7	2	5
Rajasthan	5		5
Maharashtra	4	4	
Andhra Pradesh	3	3	
Telangana	3	3	
Gujarat	2		2
Jammu & Kashmir	2	1	1
Karnataka	2	2	
Punjab	2	1	1
Tamil Nadu	2	2	
Uttarakhand	2	1	1
Arunachal Pradesh	1		1
Haryana	1		1
Himachal Pradesh	1		1
Kerala	1		1
Manipur	1		1
Meghalaya	1		1
Mizoram	1		1
Nagaland	1		1
Sikkim	1		1
Tripura	1		1
<b>Total (All Above)</b>	<b>110</b>	<b>36</b>	<b>74</b>

*Note:* z-scores are considered at two decimal places.

*Source:* Village & Town Directories, Census 2011

There are 19 aspirational districts in Jharkhand. Out of these 19 districts, 17 show negative z-score. In Bihar, eight out of the 13 aspirational districts have negative z-score. In Madhya

Pradesh, Rajasthan, and Gujarat all of the aspirational districts, eight, six, and two respectively, have negative scores. In Haryana, Himachal Pradesh, Kerala, and Northeastern states where there is one aspirational district each, the scores of all are negative. The analysis thus shows great scope of education development and skill upgradation in these districts.

Turning on to schemes, there are schemes for skill development that have component of training with respect to manufacturing as well. While some of the skilling schemes like PM Kaushal Vikas Yojana, and Craftsmen Training Scheme imparted through Industrial Training Institutes are available to all, others are specific to certain groups. Seekho aur Kamao and USTTAD (Upgrading the Skills and Training in Traditional Arts/Crafts), for example, are for the minority community. For Scheduled Castes, there is Special Central Assistance to SC Sub plan and National Scheduled Castes Finance Development Corporation. The later provides both training and finance for income generating activities. Similar such financial corporation exists for backward communities. The local industry/employers are also partnered through apprentice schemes. There are also set of schemes which fund training institutions. Jan Shikshan Sansthan (previously known as Shrameek Vidyapeeth) are also very important in skilling. These sansthans, though very old (first set up in 1967), aim to provide vocational training to non-literates, neo-literates, and school dropouts from the disadvantaged community, especially in rural areas (MSDE, 2020). The scheme was transferred from the Ministry of Education to the Ministry of Skill Development & Entrepreneurship in 2018. During the financial year 2021–22, 73 Jan Shikshan Sansthans are operational in 72 aspirational districts. Forty of the total 73 were sanctioned during the financial year 2021–22 (PIB *b*, 2021).

Various best practices of skill training are initiated in aspirational districts that specifically cater to manufacturing learning. For example, women are being given training under Asha Centre set up in Kondagaon district of Chhattisgarh for producing cloth, sanitary pads, and glass bangles within the centre (NITI Aayog, 2020). Similarly, in Palamu district of Jharkhand, industrial sewing machine facility is set up where not just training is provided, but finished product is also produced. The facility supplies 2.5 lakh school uniforms every year. Likewise, solar mamas are getting trained in producing solar equipment in Gumla district of Jharkhand. Such initiatives can be taken up by other districts as well.

Such initiative would not just ensure retention of skilled and semi-skilled workers within the district, but would also help the local economy to grow and get transformed.

As funds for aspirational districts basically come from the existing schemes of central and states governments and from the performance grant which is of the nature of Rs 10, Rs 5, and Rs 3 crore given every month, efforts are also being made to mobilise other resources. Corporate Social Responsibility (CSR) Fund is one such fund.

In December 2018, the Department of Public Enterprises under Ministry of Heavy Industry & Public Enterprises issued guidelines to all Central Public Sector Enterprises (CPSEs) for spending 60% of their CSR funds on a particular theme every year, with preference may

be given to aspirational districts (GOI, 2018). The theme for the year 2018–19 was Healthcare and School Education. The theme for the year 2019–20 was Healthcare, Nutrition, and School Education (PIB, 2020). To give an idea of the expenditure under CSR, four of the CPSEs under Department of Heavy Industry made expenditure in Aspirational Districts as given in Table 7.

**Table 7: Selected CPSEs CSR Expenditure (2018-19 & 2019-20)**

<i>CPSE</i>	<i>Districts Covered</i>	<i>Expenditure (in lakhs)</i>
Bharat Heavy Electricals Ltd	34	2394.16
Bridge & Roof Co. Ltd	3	83.26
Braithwaite Burn & Jessop Construction Co. Ltd.	1	13.41
Rajasthan Electronics & Instruments Ltd	3	7.09

Source: Rajya Sabha, 2020.

As per the information, the companies in MCA-21<sup>7</sup> reported the following expenditure in aspirational districts between 2017 and 2020 (Table 8).

**Table 8: CSR Expenditure of MCA-21 Companies**

<i>Financial Year</i>	<i>Expenditure (in Cr)</i>
2017–18	232.8
2018–19	307.51
2019–20	331.91
2020-21 (upto December)	507.47

Source: Row 2,3 PIB *c*, 2021; Row 4, 5 Rajya Sabha, 2022 *b*

It is important to note that there are already schemes for manufacturing development in these districts such as those of Ministry of Micro, Small and Medium enterprises (MSME). There is, however, a need to leverage them as their progress appears to be slow. As per MSME Annual Report (2021–22), MSME Development Institutes across the country have

<sup>7</sup> MCA21 is an e-Governance initiative of the Ministry of Corporate Affairs (MCA), Government of India that enables an easy and secure access of the MCA services to the corporate entities, professionals, and citizens of India. The project is named MCA21 as it aims to fulfil the aspirations of its stakeholders in the 21st century (Chitkara, undated). An important thing about MCA-21 is that in 2015 with the base year revision to 2011-12, changes have been made with respect to data of Private Corporates used to measure National Income. In 2004-05 series, private corporate sector data was from the data of 2500 companies provided by RBI from the Annual Accounts of Companies filed with the Ministry of Corporate Affairs under their MCA-21 initiative (MOSPI, 2015).

prepared detailed reports on District Industrial potential Surveys and District Development Plan for 50 aspirational districts (MSME, 2022).

The Schemes of Ministry of MSME has many important schemes running in the country pertaining to credit and financial assistance, skill development and training, infrastructure support, technology upgradation and procurement and marketing schemes. However, the benefits from these schemes appear to be low.

Special mention should be made of schemes that aim at financial assistance and organising industries through infrastructure support. Under the Prime Minister Employment Generation Programme (PMEGP), a financial assistance scheme, benefit of margin money subsidy is provided to projects with the maximum cost of Rs 50 lakh in manufacturing and Rs 20 lakh in the service sector. The subsidy support is to the extent of 35% in rural and 25% in urban areas of aspirational districts. The beneficiary own contribution is just 5% of the project cost (MSME, 2022a) As per MSME Annual Report 2021–22, of the total 7.38 lakh micro enterprises (both manufacturing and services) set up between 2008–09 and 2021, only 14% were in aspirational districts. (MSME 2022b). For setting up of Common Facility Centres under MSE-CDP (Micro & Small Enterprises-Cluster Development Programme), the grant from both centre and state is 95%, 85% of project cost of 5-10 and 10-30 crore respectively will be available to aspirational district project. Under the same scheme special assistance is also provided to aspirational districts for infrastructure development of clusters. Under the same scheme special assistance is also provided to aspirational districts for infrastructure development of clusters (MSME, 2022c). There is another infrastructure support scheme, namely SFURTI in which artisans from traditional industries that include khadi, village and coir industries are organised into clusters. The support is upto Rs 5 crore. There is a direction to approve 40% of these clusters in uncovered and aspirational districts (MSME, 2022d). From a list of 200 functional SFURTI clusters in the country, around 25 are found to be in aspirational districts (SFURTI website). The scheme was launched in 2005. As per information, the focus is going to be laid on proposals from aspirational districts (PIB *d*, 2021). Similarly, under ASPIRE launched in 2015 in which Livelihood Business Incubators (LBIs) and Technology Business Incubators (TBI) are set up, out of the total 124 incubators (102 LBIs), eight are in aspirational districts and are all LBIs (ASPIRE, from Website).

## 6. Summing Up

The 112 aspirational districts are districts that are chosen for transformation in terms of socioeconomic attributes. They are being promoted to become first, state best and then nation best. Spurring competition among these districts is a key strategy of the programme. As per the current scheme of things, the districts are evaluated with respect to education, health and nutrition, agriculture and water, finance inclusion and skill development as well as basic infrastructure. While there is no denying of linkage between socioeconomic attributes and industrial development, the point is whether manufacturing can be

particularly focused and evaluated for bringing large scale economic and social changes to rectify conditions of poor living, distress migration, engagement in lower-level services for the reason of survival, and so on. Particular focus can be laid on the rural industries present across the length and breadth of the country. With this in mind, the paper focused on understanding the status of manufacturing in these districts. Of the total workers and units in these districts, one finds most of them to account for roughly an equal share of less than one percent. While the distribution is stable with respect to units, for the workers few districts, especially those in Odisha and Jharkhand, show a decline between 1990 and 2013. Forty eight of the 90 districts analysed noticed a decline in the growth rate of workers during this time. Is that because of increasing outmigration? From the analysis of census database of 2011, this seems to be true. There is a huge dependence on primary activities of cultivation and agriculture labour in these districts. These districts seem to have high feminisation of workforce as around 3/4 of these districts record female workforce participation higher than national average. However, much of the work available appears to be of marginal type. In manufacturing, 99% units are micro units with the number of hired workers being less than ten. Only 0.1% units have 100 and above workers. And of these, 0.1% over 50% are in three districts of Virudhunagar (Tamil Nadu), Haridwar, and Udham Singh Nagar (Uttarakhand).

Manufacturing is basically low technology based in these districts. Food processing accounts for 20% of the share amongst all manufacturing groups followed by textiles, wood & wood products, and non-metallic minerals. Over time, low technology is becoming stronger as its share is on rise. Medium-low technology manufacturing that includes important groups like non-metals, basic metals, fabricated metals amongst others registered a decline. Slight increase is noticed with respect to high-medium technology. As far as specialisation is concerned most of these districts have attained moderate levels of specialisation in each of the manufacturing type.

The composite delta score of aspirational districts that is based on five monitoring parameters has significantly positive correlation with manufacturing score of districts. However, the explained variation is low.

While low technology manufacturing can particularly be focused upon, the medium-low and high-medium can also be focused upon as depicted in aspirational districts of Jharkhand, Bihar, Tamil Nadu, and Uttarakhand.

The efforts are also being made to give impetus to MSME units in these districts. Be it MSE-CDP, SFURTI for cluster development or ASPIRE for rural industrialisation and various schemes of training, focus is there on aspirational districts. As revealed in the analysis low technology manufacturing which include food processing, textile, wearing apparel etc should particularly be focused in these districts. For that to materialise in scale and speed there is a need to add manufacturing in the monitoring parameters under the ADP.



## References

- ASPIRE (Undated), Final Approved Incubator List. Accessed on April 8, 2022. Available at: <https://aspire.msme.gov.in/ASPIRE/Reports/ShowDPRList.aspx>
- Chand, Mahesh and V K Puri (1983), *Regional Planning in India*, New Delhi: Allied Publishers.
- Chitkara, Sunita (Undated), "Improvements in Private Corporate Sector Data." Available at: <https://epwrf.in/upload/seminars/igidr/mca21-s.%20chitkara.pdf>
- GOI (1980), *Report on Industrial Dispersal National Committee on the Development of Backward Areas*, Planning Commission.
- \_\_\_\_ (2007), *Backward Regions Grant Fund: Programme Guidelines*, Ministry of Panchayati Raj, Government of India.
- \_\_\_\_ (2018), "Office Memorandum dated 10 December 2018: Guidelines for CSR Expenditure of CPSEs," Department of Public Enterprises, Ministry of Heavy Industries and Public Enterprises, Government of India. Available at: [https://dpe.gov.in/sites/default/files/development\\_of\\_Aspirationaldistrict\\_1.pdf](https://dpe.gov.in/sites/default/files/development_of_Aspirationaldistrict_1.pdf)
- Kapoor, Amit and Michael Green (2020), "An Assessment of Aspirational District Programme, Institute for Competitiveness," Gurugram, Haryana.
- Mehrotra, Santosh and Tuhin Subhra Giri (2019), "The Size Structure of India's Enterprises: Not Just the Middle is Missing," CSE Working Paper 2019-06, Azim Premji University.
- MHA (2019), "Resource Envelope for Aspirational Districts," Ministry of Home Affairs, Government of India. Available at: [https://www.aspirationaldistricts.in/wp-content/uploads/2019/02/Aspirational\\_District\\_Complete\\_Booklet\\_5-2-19\\_B.pdf](https://www.aspirationaldistricts.in/wp-content/uploads/2019/02/Aspirational_District_Complete_Booklet_5-2-19_B.pdf)
- MOSPI (2015), "Changes in Methodology and Data Sources in the New Series of National Accounts. Base Year 2011-12," Ministry of Statistics and Programme Implementation, GOI. Available at: [https://epwrfits.in/Changes\\_in\\_Methodology\\_NS\\_2011\\_12\\_%20June\\_2015.pdf](https://epwrfits.in/Changes_in_Methodology_NS_2011_12_%20June_2015.pdf)
- MSDE (2020), "Jan Shikshan Sansthan." Available at: <https://msde.gov.in/en/schemes-initiatives/Other-Schemes-and-Initiatives/Jan-Shikshan-Sansthan-JSS>
- MSME (2022a), Approval for Continuation of Prime Minister's Employment Generation Programme (PMEGP) over the 15th Finance Commission cycle for five years from 2021-22 to 2025-26 – reg, dated 13 May 2022. Ministry of Micro Small and Medium Enterprises. <https://msme.gov.in/sites/default/files/Revised-Guidelines-PMEGP-2022.pdf>
- \_\_\_\_ (2022b), *Annual Report 2021-22*, Ministry of Micro, Small and Medium Enterprises, Government of India. Available at: <https://msme.gov.in/sites/default/files/MSMEENGLISHANNUALREPORT2021-22.pdf>
- \_\_\_\_ (2022c), New Guidelines of Micro and Small Enterprises Cluster Development Programme (MSE-CDP), dated 24 May 2022. <http://www.dcmsme.gov.in/schemes/New-Guidelines.pdf>
- \_\_\_\_ (2022d), Revised guidelines of Scheme of Fund for Regeneration of Traditional Industries (SFURTI) – reg, dated 9 September 2022. Ministry of Micro, Small and

- Medium Enterprises. [https://sfurti.msme.gov.in/WriteReadData/Circular/SFURTI\\_NEW.pdf](https://sfurti.msme.gov.in/WriteReadData/Circular/SFURTI_NEW.pdf)
- NITI Aayog (2018a), "Aspirational Districts: Unlocking Potential, NITI Aayog, Government of India. Available at: <https://www.niti.gov.in/sites/default/files/2018-12/AspirationalDistricts-Book.pdf>
- \_\_\_\_ (2018b), *Deep Dive: Insights from Champions of Change. The Aspirational District Dashboard*, NITI Aayog, Government of India. Available at: <https://www.niti.gov.in/sites/default/files/2018-12/FirstDeltaRanking-May2018-AspirationalRanking.pdf>
- \_\_\_\_ (2018c), *Deep Dive: 2<sup>nd</sup> Delta Ranking & Insights from Household Survey*, NITI Aayog, Government of India Available at: [http://103.210.73.67/assets/docs/Deep%20Dive%20-%20V2%20-%202nd%20Delta%20Ranking%20\(Dec%202018\).pdf](http://103.210.73.67/assets/docs/Deep%20Dive%20-%20V2%20-%202nd%20Delta%20Ranking%20(Dec%202018).pdf)
- \_\_\_\_ (2018d), *Transformation of Aspirational Districts: A New India by 2022*. NITI Aayog, Government of India. Available at: <https://www.niti.gov.in/sites/default/files/2018-12/Transformation-of-AspirationalDistricts-Primer-A-New-India2022.pdf>
- \_\_\_\_ (2020), *Best Practices Aspirational Districts*, Volume 1. Available at: [https://www.niti.gov.in/sites/default/files/2020-08/Best\\_Practices\\_from\\_Aspirational\\_Districts\\_Volume\\_1.pdf](https://www.niti.gov.in/sites/default/files/2020-08/Best_Practices_from_Aspirational_Districts_Volume_1.pdf)
- PIB (2018), "Financial Assistance to Economically Backward Region," Ministry of Finance, March 23. Available at: <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1526184>
- \_\_\_\_ (2020), "DPE Workshop on CSR Initiatives by CPSEs for Transformation of Aspirational Districts," Ministry of Heavy Industries and Public Enterprises, March 3. Available at: <https://archive.pib.gov.in/newsite/erelease.aspx?relid=199760>
- \_\_\_\_ (2021a), "Backward Region Grant Fund," Ministry of Panchayati Raj, December 21. Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1783879>
- \_\_\_\_ (2021b), "Aspirational Skilling Abhiyan," Ministry of Skill Development and Entrepreneurship, Government of India, December 13. Available at: <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1780912>
- \_\_\_\_ (2021c), "CSR Expenditure by All Companies in Aspirational Districts from 2017-20," March 15. Available at: <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1704876>
- \_\_\_\_ (2021d), "Convergence of Sfurti Scheme," Ministry of Micro, Small and Medium Enterprises, Government of India, December 02. Available at: <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1777169>
- Planning Commission (2010), *Evaluation Study on Rashtriya Sam Vikas Yojna (2010)*, Available at: [https://niti.gov.in/planningcommission.gov.in/docs/reports/peoreport/peo/peo\\_rsvy1.pdf](https://niti.gov.in/planningcommission.gov.in/docs/reports/peoreport/peo/peo_rsvy1.pdf)
- Rajya Sabha (2020), "Unstarred Question No. 94: Development of Aspirational Districts by CPSEs," Department of Heavy Industry, Ministry of Heavy Industries and Public Enterprises, Government of India, September 14
- \_\_\_\_ (2022a), "Unstarred Question No. 2868: Aspirational Districts Programme in Andhra Pradesh," Ministry of Planning, Government of India, March 28.
- \_\_\_\_ (2022b), "Starred Question No. 346: CSR Fund for the Development of Backward Areas," Ministry of Corporate Affairs, Government of India, April 05.

- SFURTI (Undated), "Number of Functional Clusters Till Date." Accessed on April 8, 2022; available at: <https://sfurti.msme.gov.in/SFURTI/Home.aspx>
- Srivastava, Ravi *et al.* (2020), *Internal Migration in India and the Impact of Uneven Regional Development and Demographic Transition Across States: A Study for Evidence Based Policy Recommendations*, Institute for Human Development, Delhi.

## Appendix

**Table A1: Themes Monitored in Aspirational District Programme**

<i>Theme</i>	<i>Weight</i>	<i>Indicators</i>	<i>Data Points</i>
Health & Nutrition	30	13	31
Education	30	8	14
Agriculture & Water	20	10	12
Financial Inclusion & Skill Development	10	11	16
Basic Infrastructure (at the level of household and panchayat)	10	7	8
<b>Total</b>	<b>100</b>	<b>49</b>	<b>81</b>

Source: NITI Aayog, 2018d

**Table A2: Distribution of Aspirational Districts**

<i>State</i>	<i>Number of Districts</i>
Jharkhand	19
Bihar	13
Chhattisgarh	10
Odisha	10
Madhya Pradesh	8
Uttar Pradesh	8
Assam	7
Rajasthan	5
Maharashtra	4
Andhra Pradesh	3
Telangana	3
Gujarat	2
Jammu & Kashmir	2
Karnataka	2
Punjab	2
Tamil Nadu	2
Uttarakhand	2
Arunachal Pradesh	1
Haryana	1
Himachal	1
Kerala	1

<i>State</i>	<i>Number of Districts</i>
Manipur	1
Meghalaya	1
Mizoram	1
Nagaland	1
Sikkim	1
Tripura	1
<b>Total</b>	<b>112</b>

Source: Aspirational Districts Dashboard. Assessed in June 2021.

**Table A3: Classification of Manufacturing Groups by Technology Type**

<i>Low</i>		<i>Medium-Low</i>		<i>High-Medium</i>	
10	Food Products	19	Coke & Refined Petroleum Products	20	Chemicals & Chemical Products
11	Beverages	22	Rubber & Plastic Products	21	Pharmaceuticals, Medicinal Chemical & Botanical Products
12	Tobacco Products	23	Other Non-metallic Mineral Products	26	Computer, Electronic & Optical Products
13	Textiles	24	Basic Metals	27	Electrical Equipment
14	Wearing Apparel	25	Fabricated Metal Products except Machinery & Equipment	28	Machinery & Equipment n.e.c
15	Leather & Related Products			29	Motor Vehicles, Trailers & Semi-trailers
16	Wood & Wood Products except Furniture			30	Other Transport Equipment
17	Paper & Paper Products			33	Repair & Installation of Machinery & Equipment
18	Printing & Reproduction of Recorded Media				
31	Furniture				
32	Other (Jewellery, Music, Sport goods, etc.)				

Source: Based on Rijesh (2020).

**Table A4: Percent Distribution of Aspirational Districts by Units**

Code	Description	<1		1-2		2-3		≥3	
		EC-3	EC-6	EC-3	EC-6	EC-3	EC-6	EC-3	EC-6
10	Food Products	39	41	47	47	11	11	3	1
11	Beverages	90	87	4	6	1	1	4	7
12	Tobacco Products	90	89	6	3	3	4	1	3
13	Textiles	83	76	9	12	6	7	2	6
14	Wearing Apparel	77	38	9	57	8	4	7	1
15	Leather and Related Products	69	67	16	19	4	7	11	8
16	Wood and Wood Products, except Furniture	57	57	37	27	6	10	1	7
17	Paper and Paper Products	71	91	20	3	6	2	3	3
18	Printing and Reproduction of Recorded Media	68	69	16	26	11	4	6	1
19	Coke and Refined Petroleum Products	80	67	13	23	1	8	6	2
20	Chemicals and Chemical Products	93	89	3	4	1	3	2	3
21	Pharmaceuticals, Medicinal Chemical, and Botanical Products	66	89	20	3	3	2	11	6
22	Rubber and Plastic Products	69	79	11	7	8	6	12	9
23	Other Non-metallic Mineral Products	47	54	47	36	7	6	0	4
24	Basic Metals	74	70	13	13	4	7	8	10
25	Fabricated Metal Products, except Machinery and Equipment	49	44	37	42	12	9	2	4
26	Computer, Electronic and Optical Products	80	81	11	6	4	4	4	9
27	Electrical Equipment	66	67	11	18	12	6	11	10
28	Machinery and Equipment n.e.c	80	76	8	11	4	6	8	8
29	Motor Vehicles, Trailers, and Semi-trailers	62	87	18	4	10	2	10	7
30	Other Transport Equipment	62	80	16	8	11	6	11	7
31	Furniture	51	41	28	46	9	10	12	3
32	Other Manufacturing	53	54	34	37	9	6	3	3
33	Repair and Installation of Machinery and Equipment	62	69	24	17	4	10	9	4

Source: Computed from EC-3 and EC-6 database

**Table A5: Percent Distribution of Aspirational Districts by Units**

<i>Code</i>	<i>Description</i>	<1		1-2		2-3		≥3	
		<i>EC-3</i>	<i>EC-6</i>	<i>EC-3</i>	<i>EC-6</i>	<i>EC-3</i>	<i>EC-6</i>	<i>EC-3</i>	<i>EC-6</i>
10	Food Products	39	31	41	51	13	17	7	1
11	Beverages	87	84	7	6	0	0	7	10
12	Tobacco Products	89	86	3	6	3	3	4	6
13	Textiles	78	77	12	18	8	2	2	3
14	Wearing Apparel	74	38	12	49	3	12	10	1
15	Leather and Related Products	63	66	17	21	7	8	13	6
16	Wood and Wood Products, except Furniture	53	44	31	31	10	13	6	11
17	Paper and Paper Products	80	84	7	6	7	3	7	7
18	Printing and Reproduction of Recorded Media	77	70	14	22	3	4	6	3
19	Coke and Refined Petroleum Products	92	76	3	11	0	2	4	11
20	Chemicals and Chemical Products	92	90	4	8	1	0	2	2
21	Pharmaceuticals, Medicinal Chemical, and Botanical Products	84	89	8	4	0	2	8	4
22	Rubber and Plastic Products	80	87	7	3	6	4	8	6
23	Other Non-metallic Mineral Products	38	51	47	34	14	9	1	6
24	Basic Metals	89	74	8	13	0	4	3	8
25	Fabricated Metal Products, except Machinery and Equipment	61	51	29	37	8	11	2	1
26	Computer, Electronic and Optical Products	81	86	10	4	0	6	9	4
27	Electrical Equipment	84	79	6	12	2	2	8	7
28	Machinery and Equipment n.e.c	87	91	3	0	2	2	8	7
29	Motor Vehicles, Trailers, and Semi-trailers	96	96	1	1	0	0	3	3
30	Other Transport Equipment	87	93	7	3	1	0	6	3
31	Furniture	52	37	22	39	14	19	11	6
32	Other Manufacturing	60	50	27	32	8	9	6	9
33	Repair and Installation of Machinery and Equipment	63	64	20	20	8	7	9	9

Source: Computed from EC-3 and EC-6 database

**Table A6: Distribution of Manufacturing Units by Size Class in Aspirational Districts**

State	Aspirational District	Size Class (No. Hired Workers)				
		0-10	10-20	20-100	100 & Above	Total
Uttarakhand	Haridwar	13194	332	473	207	14206
Tamil Nadu	Virudhunagar	37498	580	622	205	38905
Uttarakhand	Udham Singh Nagar	9178	212	303	157	9850
Telangana	Jayashankar Bhupalpally (Karimnagar & Warangal Combined)	92201	430	939	67	93637
Andhra Pradesh	Vishakhapatnam	45526	126	99	52	45803
Punjab	Firozpur	15642	68	189	39	15938
Assam	Dhubri	8966	21	61	37	9085
Uttar Pradesh	Fatehpur	11487	13	39	26	11565
Chhattisgarh	Rajnandagaon	7646	82	67	21	7816
Andhra Pradesh	Vizanagaram	34538	131	51	21	34741
Punjab	Moga	7664	54	66	20	7804
Maharashtra	Osmanabad	16207	32	25	15	16279
Assam	Barpeta	20871	15	25	14	20925
Uttar Pradesh	Siddharthnagar	8902	13	97	12	9024
Rajasthan	Dhaulpur	5162	21	27	11	5221
Andhra Pradesh	YSR	32301	107	63	11	32482
Assam	Darrang	4259	21	15	9	4304
Meghalaya	Ri bhoi	1678	23	49	9	1759
Assam	Udalguri	3526	7	20	9	3562
Telangana	Kumuram Bheem Asifabad (Adilabad)	51098	38	147	8	51291
Telangana	Bhadradi Kothagudem (Khammam)	24606	168	84	8	24866
Jharkhand	Girdih	4766	27	49	8	4850
Uttar Pradesh	Balrampur	6036	2	13	7	6058
Bihar	Katihar	4890	78	27	7	5002
Jharkhand	Ranchi	7973	62	68	7	8110
Odisha	Koraput	6235	15	27	6	6283
Bihar	Muzaffarpur	11621	17	21	6	11665
Uttar Pradesh	Bahraich	7585	16	10	5	7616
Assam	Hailakandi	3296	4	6	5	3311
Jharkhand	Ramgarh	2669	7	27	5	2708
Kerala	Wayanad	8445	64	23	5	8537
Uttar Pradesh	Chandauli	7301	21	38	4	7364



State	Aspirational District	Size Class (No. Hired Workers)				
		0-10	10-20	20-100	100 & Above	Total
Jharkhand	East Singhbhum	8165	47	28	4	8244
Maharashtra	Nandurbar	7237	10	16	4	7267
Bihar	Sheikhpura	1009	1	8	4	1022
Rajasthan	Sirohi	6723	13	7	4	6747
Assam	Baksa	6727	7	9	3	6746
Jammu & Kashmir	Baramulla	12379	26	9	3	12417
Rajasthan	Baran	7862	13	14	3	7892
Bihar	Gaya	11528	17	25	3	11573
Haryana	Mewat	4066	13	14	3	4096
Bihar	Purnia	9398	10	16	3	9427
Odisha	Balangir	13230	28	26	2	13286
Jharkhand	Bokaro	12648	28	27	2	12705
Odisha	Dhenkanal	7083	22	21	2	7128
Gujarat	Dohad	5131	12	35	2	5180
Madhya Pradesh	East Nimar	6377	7	4	2	6390
Maharashtra	Gadchiroli	5319	18	12	2	5351
Madhya Pradesh	Guna	3534	6	1	2	3543
Jharkhand	Hazaribagh	6917	16	11	2	6946
Rajasthan	Karauli	5337	10	15	2	5364
Chhattisgarh	Korba	3448	26	20	2	3496
Jharkhand	Palamu	2264	9	20	2	2295
Tamil Nadu	Ramanathapuram	8400	16	22	2	8440
Odisha	Rayagada	4101	11	8	2	4122
Uttar Pradesh	Sonbhadra	4057	0	1	2	4060
Bihar	Aurangabad	5727	4	4	1	5736
Madhya Pradesh	Barwani	4270	3	8	1	4282
Chhattisgarh	Bastar (shows Kondagaon also)	4199	37	14	1	4251
Bihar	Begusarai	9416	39	20	1	9476
Madhya Pradesh	Damoh	37856	9	9	1	37875
Jharkhand	Dumka	3389	1	5	1	3396
Odisha	Gajapati	3602	26	31	1	3660
Rajasthan	Jaisalmer	2822	2	3	1	2828
Jharkhand	Lohardaga	1159	8	6	1	1174

State	Aspirational District	Size Class (No. Hired Workers)				
		0-10	10-20	20-100	100 & Above	Total
Chhattisgarh	Mahasamund	3548	43	32	1	3624
Odisha	Malkangiri	4484	12	3	1	4500
Odisha	Nabrangpur	10721	20	19	1	10761
Arunachal Pradesh	Namsai (Lohit)	394	9	15	1	419
Gujarat	Narmada	1732	7	7	1	1747
Madhya Pradesh	Rajgarh	5760	9	10	1	5780
Uttar Pradesh	Shravasti	3106	3	9	1	3119
Bihar	Sitamarhi	7762	11	5	1	7779
Madhya Pradesh	Vidisha	5320	0	5	1	5326
Maharashtra	Washim	5164	3	5	1	5173
Jharkhand	West Singhbhum	2219	8	1	1	2229
Karnataka	Yadgir	7662	10	3	1	7676
Bihar	Araria	8991	19	7	0	9017
Bihar	Banka	6139	2	3	0	6144
Chhattisgarh	Bijapur	127	0	0	0	127
Himachal Pradesh	Chamba	3944	6	4	0	3954
Manipur	Chandel	1733	1	0	0	1734
Jharkhand	Chatra	2146	0	3	0	2149
Madhya Pradesh	Chattarpur	15861	2	9	0	15872
Uttar Pradesh	Chitrakoot	2257	0	0	0	2257
Chhattisgarh	Dantewada (shows Sukma also)	926	7	7	0	940
Tripura	Dhalai	3228	10	1	0	3239
Jharkhand	Garhwa	1099	2	0	0	1101
Assam	Goalpara	6622	11	7	0	6640
Jharkhand	Godda	2934	1	6	0	2941
Jharkhand	Gumla	3074	1	1	0	3076
Bihar	Jamui	5061	2	2	0	5065
Odisha	Kalahandi	10560	22	32	0	10614
Odisha	Kandhmal	6086	0	0	0	6086
Chhattisgarh	Uttar Bastar Kanker	2716	17	9	0	2742
Bihar	Khagaria	5485	1	4	0	5490
Jharkhand	Khunti	959	5	10	0	974
Nagaland	Kiphire	105	0	0	0	105

State	Aspirational District	Size Class (No. Hired Workers)				
		0-10	10-20	20-100	100 & Above	Total
Jammu & Kashmir	Kupwara	2695	9	8	0	2712
Jharkhand	Latehar	1092	0	1	0	1093
Mizoram	Mamit	261	1	1	0	263
Chhattisgarh	Narayanpur	225	0	0	0	225
Bihar	Nawada	15864	3	1	0	15868
Odisha	Nuapara	4280	25	17	0	4322
Jharkhand	Pakur	1865	4	4	0	1873
Karnataka	Raichur	8316	25	15	0	8356
Jharkhand	Sahibganj	2239	1	0	0	2240
Jharkhand	Simdega	883	2	5	0	890
Madhya Pradesh	Singrauli	1419	4	5	0	1428
Sikkim	West District	261	4	3	0	268
<b>Aspirational Districts</b>	<b>Total (All Above)</b>	<b>945672</b>	<b>3624</b>	<b>4518</b>	<b>1106</b>	<b>954920</b>

Note: Size class adopted from Mehrotra & Giri, 2019.

Source: Aspirational Districts data extracted from EC-6.

## List of ISID Working Papers

- 255 Growth Slowdown in the Automobile Industry in India: Dwindling Middle Class Demand or Changing Consumption Pattern? *Satyaki Roy*, November 2022
- 254 Examining Regional Disparities among States of India through Sectoral Compositions, *Sangeeta Ghosh*, October 2022
- 253 India's Trade in Manufactures: The Role of Intra Industry Trade, *Manmohan Agarwal & Neha Batai*, September 2022
- 252 The Survival of Outward Investments from India and China: Is there a North-South Divide? *Suma Athreye, Abubakr Saeed, Muhammad Saad Baloch*, September 2022
- 251 Manufacturing Units and Employment in India: A District Level Analysis Using Economic Census, *Surya Tewari*, August 2022
- 250 India in the Global Vaccine Market Prior To and During COVID-19: Some Structural Issues, *Shailender Hooda*, August 2022
- 249 Unlocking India's Potential in Industrial Revolution 4.0: National Innovation System, Demography, and Inclusive Development, *Nagesh Kumar*, July 2022
- 248 India's Trade in Pharmaceutical Products: A Method for the Classification of Pharmaceutical Products and Recent Trends, *Reji K. Joseph & Dinesh Kumar*, July 2022
- 247 Exports and Growth in Indian Manufacturing: An Econometric Analysis, *Bishwanath Goldar*, June 2022
- 246 State-wise Distribution of Manufacturing Units and Employment in India: An Exploration from the Economic Census, *Surya Tewari*, June 2022
- 245 Product Market Concentration with Ownership Characteristics: An Exploration into the Consolidation Activities of Business Groups, *Beena Saraswathy*, March 2022
- 244 Indian Economy@75: Achievements, Gaps, and Aspirations for the Indian Centenary, *Nagesh Kumar*, March 2022
- 243 Understanding the Impact of Covid-19 on MSMEs in India: Lessons for Resilient and Sustained Growth of Small Firms, *Akhilesh Kumar Sharma & Sushil K Rai*, February 2022
- 242 Related party Trade and Transfers to Tax Havens: A Study of Select Manufacturing Foreign Subsidiaries in India, *Swati Verma*, January 2022
- 241 Industry 4.0: Some Conjectures on Employment and Technology Diffusion, *Satyaki Roy*, January 2022
- 240 Two Phases of NPAs in India's Banks, *Santosh Kumar Das*, December 2021
- 239 Reducing Import Dependence on APIs in the Indian Pharmaceuticals Sector: An Analysis of Early Experience of the PLI Phase-I Scheme, *Reji K Joseph and Ramaa Arun Kumar*, December 2021

---

\* ISID Working Papers can be downloaded at <https://isid.org.in/>

The **Institute for Studies in Industrial Development (ISID)** is a public-funded, non-profit, autonomous institution dedicated to conducting policy research, advocacy, capacity-building, and outreach activities to foster the industrial transformation of India.

Registered on October 7, 1986, under the Indian Societies Registration Act 1860, ISID in 1988, became one of the institutions that are supported by the Indian Council of Social Science Research (ICSSR), (Government of India), through grants-in-aid. Since 2006, the Institute operates from its own well-appointed campus located in the Vasant Kunj Institutional Area in South Delhi.

The research themes and key projects are classified under following broad thematic areas:

- o Industrial Structure, Performance, and Policies
- o Corporate Governance and Industrial Financing
- o Leveraging MSMEs and Start-ups for Industrial Transformation
- o Globalization, FDI, and Trade
- o Technology, Innovation and Industry 4.0
- o Green Industrialization Strategy
- o Employment and Labour Markets
- o Spatial Dimensions of Industrial Development and Industrial Infrastructure
- o Sectoral Studies on Competitiveness of Indian Manufacturing

ISID is recognized as a Scientific and Industrial Research Organization (SIRO) by the Government of India. It is also listed on DARPAN portal of NITI Aayog (India's Planning Agency) as a recognized think-tank. It is also a member of the Asia-Pacific Research Network on Trade (ARTNet) and the South Asia Network on SDGs (SANS) of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). ISID's Databases and e-resources are accessed by the academic community across the country through the Information and Library Network (INFLIBNET) Centre of the University Grant Commission (UGC).

**ISID** **Institute for Studies in Industrial Development**  
An institution of Indian Council of Social Science Research (Ministry of Education)

4 Vasant Kunj Institutional Area, New Delhi - 110070, India

Phone: +91 11 2689 1111 | E-mail: [info@isid.org.in](mailto:info@isid.org.in) | Website: <https://isid.org.in>