



Vivekananda International Foundation

# Employability in India

*Understanding Demography  
and the Skills Gap*

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## About the Author



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# Employability in India: Understanding Demography and the Skills Gap

## Introduction

The paper attempts to understand the complex issue of employability and the skills gap, in India. It has tried to put in perspective the various inter-related issues connected with the subject and seeks to show that a policy relating to skills development and employability must take into consideration various aspects that include: the dependence of the work force on agriculture; poverty levels; banking parameters; and the local resources of a region.

The paper has been divided into five sections. In Section 1, we discuss the demographics of the jobs market and the problem of unemployment. In Section 2, we discuss the problem of overall employability and the skills gap in India. Section 3 gives an over view of the policies relating to skilling and employability in India. Section 4 analyses the current policies on the basis of which we make certain recommendations, while Section 5 offers concluding observations.

## Section I: The Demography of the Jobs Market and the Problem of Unemployment

Data based on sample surveys conducted by National Sample Survey Office (NSSO) from 1999-2000 to 2011-12 suggests that the labour force increased by 12.8 million per annum between 1999-2000 and 2004-2005. This increase was the highest ever. However, the labour force grew by a meagre 1.01 million per annum between 2004-2005 and 2009-2010, which is probably the lowest level of growth. It grew at the rate of 4.87 million per annum between 2009-2010 and 2011-12.

Census 2011 and the projections made by the World Bank show that the numbers of those in the job seeking age group (15-34 years) rose from 7 per cent to 34.8 per cent for males, and between 25.2 per cent and 28 per cent for females, between 2001 and 2011. They are projected to remain at 34.6 per cent for males and 34.43 per cent for females in 2021, and 31.8 per cent for males and 31.2 per cent for females in 2031. The total population which was 1,02,86,11,000 in 2001 went up to 1,21,08,55,000 in 2011 and is projected to rise to, 1,40,38,82,000 by 2021 and further to 1,53,99,05,000, by 2031.

The number of persons in the job seeking age group went up from 34,76,77,000 in 2001 to 38,24,20,000 in 2011(a net increase of 3,47,43,000) and is projected to go up to 47,94,06,000 in 2021 (a net increase of 9,69,86,000). It will rise to 48,54,23,000 in 2031(a net increase of 60,17,00).According to Census(2011) estimates the number of people in the job seeking age group increased at the rate of 3.47 million per annum between 2001 and 2011. There is, however the limiting assumption that the numbers have grown uniformly over the ten year period, which may be not so in actuality.

The two sets of data mentioned above are however, not comparable because the NSSO data is based on sample surveys, while the census data is based on a complete enumeration of the population. Nonetheless, they help us to fathom the dimensions of the immense problem of

the vast numbers of jobseekers entering the labour market and the need to provide skilling and employment opportunities, for them.

**Table 1**  
Growth of educated job-seekers (in thousands)

S.No	Qualification	Gender	2010-11	2014-15	% change
1	PhD	Male	48	69.6	45
		Female	29.8	47.7	60.1
2	MPhil	Male	12.7	14.1	11.0
		Female	12.6	19.3	53.2
3	Masters	Male	1814	1867.1	2.9
		Female	1455.7	1986.3	36.4
4	Undergraduate	Male	12117.5	14467.2	19.4
		Female	9854.7	12705.1	28.9
5	PG Diploma	Male	90.4	121.3	34.2
		Female	49.5	94.1	90.1
6	Diploma	Male	1280.7	1787.1	39.5
		Female	532.7	719.6	35.1
7	Certificate Courses	Male	67.2	74.2	10.4
		Female	77.1	96.0	24.5
8	Integrated Degree	Male	36.1	86.9	140.7
		Female	21.0	55.0	161.9
9	Total	Male	15466.6	18488.6	19.5
		Female	12033.2	15723.0	30.7

PG-Post Graduate, MPhil-Master of Philosophy, PhD- Doctor of Philosophy  
(Source: Ministry of Statistics and Programme Implementation, Government of India)

The data presented in the table above captures the dynamics of the jobs market in India. It shows that numbers of jobseekers go up with higher educational qualifications from Masters and above and integrated degree courses, particularly for female candidates, bringing into focus the need to make education job-ready and the educated, employable. The data also brings into focus the gender perspective, with the increase in the numbers of female jobseekers in most qualification categories.

To understand the problem of youth unemployment among the educated, it is important that we have a fuller discussion on several other parameters, that have a bearing on skills and employability of the youth, namely, the share of the workforce that is dependent on agriculture, the poverty levels and the banking parameters.

### **Census (2011) Data on Agriculture Workforce**

The census which is an exercise for counting the population and also obtaining various kinds of demographic data relating to social information is undertaken once every 10 years. The last census took place in 2011 and it is due again in 2021. Therefore, before 2021 it will not be possible to get any fresh census data and we will have to make do with the data provided by the 2011 census. The census data distinguishes between main workers and other workers. Main workers are those who are employed for six months in the year or more; while other workers are employed for less than six months in the year. We have information, (Annexure Table) from different states of India, which reveals the employment position, as shown by the percentage of main workers, to the total working population.

The census data reveals interesting trends. The following states, 16 of them, have fewer main workers as compared to the national average. These states are mainly in the East, Northeast, Central and in hilly regions of Northern India. These states are: Jammu & Kashmir (hilly, North); Himachal Pradesh (hilly, North); Uttarakhand (hilly, North); Rajasthan (Desert, North); Uttar Pradesh (East); Bihar (East); Sikkim (Northeast), Manipur (Northeast); Tripura (Northeast); Assam (Northeast); West Bengal (East); Jharkhand (East); Odisha (East); Chhattisgarh (Central); Madhya Pradesh (Central); Lakshwadeep (West, tiny island).

### **Share of Workforce Dependent on Agriculture**

The composition of the workforce engaged in agriculture shows that cultivators and agricultural labour constitute about 54.5 per cent of the workforce at the national level. Of the 35 states for which Census (2011) information is available, 13 states have a higher percentage as compared to the national level; while 22 states have a lower percentage.

### **Dependence on Agriculture and Share of Agriculture in GSDP**

Data on the share of agriculture in Gross State Domestic Product (GSDP) is available for 32 states. These states can be classified into three groups. The first group consists of 11 states that showed a higher dependence on agriculture, in terms of a higher proportion of their workforce as compared to the national average, despite witnessing a fall in the share of agriculture in their GSDP. The second group consists of 19 states which showed a reduced dependence on agriculture in terms of a lower percentage of their workforce being dependent on agriculture as compared to the national average, along with fall in the share of agriculture in their GSDP.

There is a third group of two states, that has shown an increased dependence on agriculture in terms of having a higher proportion of workforce dependent on agriculture as compared to the national average, but have also shown an increase in the share of agriculture, in their GDP.

The states which fall in the group of 11 states are: Andhra Pradesh; Himachal Pradesh; Rajasthan; Uttar Pradesh; Bihar; Arunachal Pradesh; Nagaland; Meghalaya; Jharkhand; Odisha; and Chhattisgarh. The states in the second group of 19 states/union territories are: Andaman & Nicobar Islands; Assam; Chandigarh; Delhi; Goa; Gujarat; Haryana; Jammu & Kashmir; Karnataka; Kerala; Maharashtra; Manipur; Puducherry; Punjab; Sikkim; Tamil Nadu; Tripura; Uttarakhand; and West Bengal. The two states which fall in the third group are: Madhya Pradesh and Mizoram.

### Poverty Levels

The average poverty levels for the three group of states are given in the table below. It will be observed that the percentage of population below the poverty line is high and the rate of decline of poverty is slower in the group of two states as compared to the other groups of states. Theirising share of agriculture in their GSDP has also not made a major dent in reducing poverty levels.

**Table 2**  
Percentage people below poverty line

Group	2004-05	2009-10	2011-12
All India	37.2	29.8	21.9
Group of 11	34.2	28.1	21.9
Group of 19*	27.8	19.5	16.2
Group of 2	32	28.9	26.05

(Source Estimated from BPL Survey data, Government of India ,\*data available for 17 states)

### Banking Parameters: Credit-Deposit Ratio

The all India credit (C-D) ratio was 77.1 per cent in 2015 while the average C-D ratio for the group of 11 states in 2015 was 84.2 per cent; for group of 19 states it was 62 per cent and for the group of two states it was 46.3 per cent. The variation in C-D ratios is also reflected in the levels of indebtedness of households in the three groups of states. The group of 11 states which had the highest C-D ratio, primarily due to the high C-D ratio in Andhra Pradesh, Rajasthan

and Chhattisgarh had the lowest indebtedness of 37.4 per cent in 2010, with low average monthly incomes among all three groups of states; while the group of 19 states which had lower C-D ratios than the group of 11 states, had a higher indebtedness of 46 per cent, with highest average monthly incomes among all three groups of states. The group of two states which had a low C-D ratio had also the lowest indebtedness at 25.9 per cent, among all the three groups of states, because of Mizoram, which had very little financial inclusion and access to institutional credit.

The credit-deposit ratio for the Regional Rural Banks (RRBs) in the three groups of states and the banking infrastructure in terms of number of branches of commercial banks and RRBs are given in the table below.

**Table 3**  
Banking parameters of groups of States

<b>Group</b>	<b>C-D Ratio of RRBs (2015)</b>	<b>Number of Branches of RRBs (2015)</b>	<b>Offices of scheduled banks (2015)</b>
All India	67.4	26473	153249
Group of 11 states	48.9	10283(9 states)	43402(10 states)
Group of 19 states	65.8(12 states)	13218(12 states)	73335
Group of 2 states	55.6	2159	6148

(Source: Estimated from Basic Statistical Returns submitted by banks to RBI)

The above table shows that the number of branches of RRBs (38.8 per cent of the total in the country) and scheduled banks (28.3 per cent of all in the country) for the group of 11, although data for only nine states are available, appears inadequate and also include large states like UP, Rajasthan, Chhatisgarh and Bihar. The C-D ratio for this group has primarily gone up owing to the presence of a few states in this group that have high C-D ratios, implies that banks in these groups of states are reluctant to lend.

### **Categories of Employment**

We shall next study the various categories of employment opportunities generated in the three groups of states based on the Employment Unemployment Survey (EUS) conducted by the Labour Bureau of the Government of India, Ministry of Labour and Employment for the year, 2015-16.

## **MGNREGA**

We begin with a comparison of the number of households that benefitted from the 100 days employment guarantee programme or MGNREGA (Mahatma Gandhi Rural Employment Guarantee Scheme) in 2015-16. The scheme has been conceived to create rural assets, to make agriculture sustainable and offers opportunities for people in distress situations to get employment for a period of 100 days in a year. As against a national average of 219 households, in the group of 11 states which have relatively more poor households as compared to the other groups of states, 312 households benefitted, 210 households in the group of 19 states benefitted while the number was 610 in the group of two states, with both the states showing higher participation than the national average.

### **Workers of all Categories**

The data on the percentage distribution of workers aged 15 years and above, shows that the percentage of workers who worked for 12 months was the highest, at 69.2 per cent in the group of 19 states, followed by the group of 11 states at 55.5 per cent, and 49.9 per cent in the group of two states as against the national average of 60.6 per cent. The poorer group of states, namely the group of 11 and the group of two states, have a higher percentage of workers getting work for six to 11 months and from one to five months, whereas the percentage of workers who did not get any work was higher for the richer group of states, i.e. the group of 19. Except for the group of two states, the percentage of workers who did not get any work was higher for the other groups, as compared to the national average.

### **Unemployment Rate**

The unemployment rate for every 1000 population has been the highest for the group of 19 states at 544 as compared to the national average of 37 and 42.8 for the group of 11 states and 22.5 for the group of two states (the unemployment rate is defined as the number of persons unemployed per 1000 persons in the labour force which consists of both employed and unemployed persons). A gender breakup of the unemployment figures shows that while for male workers, the rate of unemployment was lowest for the group of two states at 15 per 1000, it was about 35 for both the group of 19 and the group of 11 states, with the national average being 37. The situation for female workers is different with the rate as high as 108.4 for every one thousand women in the group of 19 states, followed by 60 in the group of 11 states and 43 for the group of two states, with the national average at 58.

### **Labour Force and Work Participation Rates**

Labour force and work participation rates (LFPR and WPR) give an idea of the employment situation. The LFPR is an indicator of the number of people in the labour market either as workers, or who are available for work. The WPR is the worker population ratio which helps us estimate the size of the workforce. The LFPR for both rural and urban areas combined shows that for male workers, the group of 11 states had the highest number at 753, followed by the group of 19 states which had 738 male workers; the group of two states had 726, while the national average was 750. For female workers, the group of two states had the highest number at 357, followed by 310 for the group of 11 states, while for the group of 19 states the number was 222, with the national average at 237. For male and female combined, the group of two states

had the highest LFPR at 547, followed by group of 11 states at 510 and the group of 19 states at 466, while the national average stood at 466.

The WPR, for male workers in the group of 11 states was the highest at 711, followed by the group of two states at 704 while the group of 19 states stood at 675, with the national average at 721. For female workers, the group of two states with 505 had the highest number, followed by group of two states at 283 while the group of 19 states was at 198, with the national average at 217. For male and female combined, the group of two states had the highest number at 596, followed by the group of 11 states at 477 and the group of 19 states at 460, with the national average at 478 (the Labour Force participation Rate, LFPR, is defined as the number of persons in the labour force per 1000 persons, while the Worker Population Ratio or WPR is defined as the number of persons employed per 1000 persons).

It would be observed that the groups of states that have a higher percentage of poor people, have higher LFPRs and WPRs, as the poor cannot remain unemployed for long periods of time and have to take up employment for survival, whatever be the quality of work. For male workers, five of the group of 11 states (45.4 per cent) had higher numbers than the national average as against eight of the group of 19 states (42 per cent). However, neither of the group of two states had higher LFPRs for male workers.

For female workers, five out of 11 (45.4 per cent) of the for group of 11 states, as against 10 out of 19 (52.6 per cent) for the group of 19 states and one out of the (50 per cent) group of two states, had LFPRs higher than the national average. For both male and female combined, for the group of 11 states, six out of 11 (54.5 per cent), nine out of 19 states (47.3 per cent) and one out of two states (50 per cent) had an LFPR higher than national average.

The WPR, for male workers, was six out of 11 for the group of 11 states (54.5 per cent) and eight out of 19 for the group of 19 states (42.1 per cent), while none in group of two states had a higher percentage than the national average. For female workers, five out of 11 (45.4 percentage) for the group of 11 states, five out of 19 (26.3 per cent) for group of 19 states and two out of two (100 per cent) for the group of two states had WPR higher than the national average. For male and female workers combined, five out of 11 (45.4 per cent) for the group of 11 states, seven out of 19 (36.8 per cent) for the group of 19 states and two out of two (100 per cent) for the group of two states had higher WPR than the national average.

The higher LFPR in the larger group of 19 states could be explained by the better spread of education among women and the general societal culture that enabled women to participate in the labour force in these states. Many of these are in the South, West and Northeast (Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu, Puducherry, Andaman & Nicobar, Manipur, Sikkim and Tripura).

The group of two states did not diversify enough to create job opportunities in other sectors of the economy and have concentrated on agriculture. As a result, labour force participation has increased only for women, but not for men in these states because farming operations, which could be combined with household activities, have created employment opportunities for women to supplement their family income.

We shall next study the relationship between LFPR, WPR and the average monthly income of the states, for which data is available. We have data on the average monthly income for 27 states for 2014-15. Out of these 27 states, 17 states have average monthly incomes higher than the national average. Of these 17 states, 10 states have higher unemployment rates than the national average, thereby reflecting a trend that states with higher income have also higher unemployment rates, as people can afford to remain unemployed in states with higher incomes. Of the 10 remaining states with lower monthly incomes than the national average, five states have lower unemployment rates than the national average, indicating a trend that people cannot afford to remain unemployed even in poorer states. Of the 12 states that have lower unemployment rates than the national average, seven states have average monthly income levels that are higher than the national average, of which four of them are developed states such as, Gujarat, Maharashtra, Karnataka, Haryana, two (Manipur and Mizoram) from the Northeast whereas in Mizoram the share of agriculture in its GSDP has increased, and one from the north, namely Rajasthan, which has diversified to raise income levels and lower the unemployment rates. Of the 13 states with unemployment rates higher than the national average, 10 states had monthly income levels that were higher than the national average, reflecting a trend that people in states with higher incomes can afford to remain unemployed for longer periods as compared to the poorer states. This also reflects the growth process in these states, which despite generating higher levels of average incomes, do not however generate enough employment opportunities.

An overall assessment of the three groups of states shows that getting jobs is most difficult in the group of states whose share of agriculture has declined and where even diversification has not been able to create jobs in the other sectors so as to reduce the percentage of workers without jobs. We have seen that the net diversification in all 11 states is (-) 57.41 per cent; for the group of 19 states it is (+) 3.14 per cent and for the group of two states it is (-) 2.27 per cent. But diversification in some states did have an impact on job creation with the percentage of workers getting jobs for 12 months being the highest in the group of 19 states, but it also had a higher percentage of workers who did not get any jobs, compared to the other group of states. This trend gives rise to the question whether the development process has the ability to ensure employability and quality jobs, particularly regular salaried jobs. We shall study this question in greater detail later.

### **Wage/Salaried Workers**

For the category of wage /salaried workers employed for 12 months in a year in the rural areas, the group of 19 states at 90.3 per cent has the highest percentage, followed by the group of 11 states at 89.4 per cent and the group of two states at 86.75 per cent, with the national average of 91.4 per cent for this category of workers. In the second category of workers who are employed for 6 to 11 months, the group of two states had the highest share at 12.2 per cent, followed by group of 19 states at 9.3 per cent and the group of 11 states at 6.7 per cent as against the national average of 8.2 per cent for this category of workers. In the urban areas with the group of 19 states having the highest percentage of 96.5 per cent of workers, who worked for 12 months, followed by group of 11 states at 95.1 per cent and the group of two states at 93.8 per cent, as against the national average of 95.4 per cent. However, for the second category of workers who worked for 6 to 11 months, the group of two states at six per cent, was at the

highest, followed by the group of 11 states at 5.2 per cent and the group of 19 states at 3.4 per cent, as against the national average of 4.4 per cent.

## **Contract Workers**

For the contract workers in the rural areas, engaged for 12 months, the group of 11 states had the maximum share at 67.4 per cent, followed by group of 19 states with 64.1 per cent and 59.2 per cent for the group of two states as compared to the national average of 65.7 per cent for this category of workers. For the next category of workers who get work for 6 to 11 months, the group of two states had the highest percentage at 39.1 per cent followed by 28.1 per cent for the group of 11 states and 21.4 per cent for the group of 19 states as compared to the national average of 33 per cent for this category of workers.

For the urban areas, the group of 11 states had the largest share of workers who get work for 12 months at 83 per cent followed by the group of 19 states at 72.9 per cent and the group of two states at 68.8 per cent as against the national average of 85.9 per cent for this category of workers. For the next category of workers who get work for 6 to 11 months, the group of 11 states had the largest share of 25.3 per cent followed by the group of 19 states with 20.9 per cent and the group of two states with 16.2 per cent as against the national average of 13.3 per cent for this category of workers.

## **Casual Workers**

Casual workers are those workers who get occasional work. For casual workers in the rural areas who get occasional work for 12 months, the group of 11 states at 40 per cent had the highest percentage of workers who got such work, followed by the group of two states with 31.6 per cent and the group of 19 states with 27.7 per cent while the national average was 32.4 per cent for this category of workers. For the next category of workers who get occasional work for six to 11 months, the group of 19 states had the highest share of 66.5 per cent followed by the group of two states at 61.3 per cent and the group of 11 states with 57.3 per cent, with the national average at 66.1 per cent for this category of workers.

In urban areas, the group of 11 states had the largest percentage of workers who get occasional work for 12 months at 62.1 per cent, as compared to group of 11 states with 52.3 per cent and the group of two states with 22.3 per cent, while the national average was at 62.4 per cent for this category of workers. In the next category of workers who get occasional work for 6 to 11 months, group of two states had the largest percentage with 58.6 per cent, followed by the group of 19 states with 45.2 per cent and the group of 11 states with 42.8 per cent, while the national average was 36.7 per cent for this category of workers.

Our analysis so far reveals that the threefold classification of states based on the share of workers (cultivators and agricultural labour) engaged in agriculture and the share of agriculture in the GSDP, has thrown up interesting conclusions. States that have reduced their share in agriculture and diversified into other sectors such as the group of 19 states, that have a positive diversification index, have done well, as compared to the other group of states that did not diversify enough. The percentage of workers engaged for 12 months is higher for all categories of workers, in the group of 19 states.

## Self-Employment

Data for rural and urban areas separately shows that for rural workers in the 12 months category, the group of 11 states is the highest at 72.9 per cent for rural and 85 per cent for the urban, as against the national average of 61 per cent for the rural and 87.6 per cent for the urban; followed by the group of 19 states at 54.2 per cent for rural and 83.8 per cent for urban and the group of two states which has 39.2 per cent for the rural and 69.7 per cent for the urban. For the next category of workers who are engaged for 6 to 11 months, the percentage is highest for the group of two states at 60.1 per cent for rural and 29.5 per cent for urban areas, as against the national average of 37.6 per cent for rural and 12 per cent for urban areas. For the third category of workers who are engaged for 1 to 5 months, the group of 11 states has the highest percentage at 7.9 per cent, as against the national average of 1.4 per cent for rural areas and 0.5 per cent for urban areas, as against the national average of 0.4 per cent. However, in this category, the group of two states is at 1.5 per cent, which is the highest percentage among the three groups.

It is seen that group of 19 states which has more developed states than the other groups of states had the maximum number of self-employed workers engaged for 12 months both, in the rural and urban areas, with the latter being higher; while for the workers engaged for less than 12 months the other two groups of states which are not so developed as compared to the group of 19 states, have a higher percentage of workers. This trend shows that the less developed regions generate more employment, but it is more seasonal in nature and not round the year.

## Section 2: Problem of Overall Employability and the Skills Gap in India

Lack of employable youth is a problem that affects all educational levels and more so, the higher educated. The Employment-Unemployment Survey conducted by the Labour Bureau for the year 2015-16, has shown that the rate of unemployment has been 9.8 per cent for post graduates and above, despite 59.2 per cent of them getting employed. The rate of unemployment is also higher for graduates at 10 per cent despite 51.6 per cent of them getting employed, while the rate of unemployment for diploma /certificate holders is 6.4 per cent with 51.5 per cent of them getting employed. The rate of unemployment for those below the primary level of education is the lowest at 0.9 per cent with 51.9 per cent of them getting employed. It is a paradox, that the levels of unemployment go up with higher qualifications.

*The India Skills Report, 2017* highlights that educational qualifications alone do not necessarily increase employability. There are several other qualities that employers look for in a person. These include domain knowledge; communication skills; numerical and logical aptitude; critical thinking; behavioural skills such as learning ability, interpersonal skills, emotional intelligence, conflict resolution, self-determination, team spirit, target setting and strategic thinking. These attributes would be difficult to impart in the general undergraduate or post graduate courses offered by most universities, or even business schools. These attributes need to be imparted from the very beginning of a child's education curriculum, which needs to be geared to encourage thinking and creativity and generating an interest in the child to pursue education as a means of personality development and not as a means to gain qualifications for getting jobs. This change in thinking is gradually coming being seen in the education curriculum of schools, colleges and universities but there is still a long way ahead.<sup>1</sup>

*The India Skills Report, 2018* includes a survey of about 5,00,000 students who appeared for an employability skill test and also interviewed about 130 corporates across 15 industries. The survey focused on 5 core areas: employability and hiring trends; automation and its impact on industry; future skills and; future jobs. The survey revealed that about 45.6 per cent of the candidates were employable, an improvement of about 5.6 per cent from the 2017 survey. It estimates that the workforce in India will approximately go up to 600 million by 2022, from the current 473 million. With greater efforts being made for generating of decent jobs, the ratio between the unorganised and organised sector, would alter from the present 92 percent and 8 per cent respectively to 90 per cent (unorganised) and 10 per cent (organised) by 2022 due to two per cent workforce coming to the organised sector from the unorganised sector because of the efforts both by the government and the private sector to create decent jobs, according to the survey mentioned. The survey also finds that globalisation, the expanding domestic Indian market and Artificial Intelligence (AI) including robotics, would be responsible for this shift. The focus would be on non-agriculture sectors such as roads, railways, power, telecommunications, rural development, health care and education. The survey concludes that given the potential of Indian workers to work with technology and adapt themselves to the new environment of automation and machine learning, it is likely to be an evolutionary process where jobs would coexist with automation rather than revolutionary were job. In other words, the process of automation brought about by AI would not create a revolution by destroying jobs all of a sudden as it is widely apprehended but the process would evolve and gradually reduce jobs. Many of the new age jobs would be in the areas of mobile internet, cloud technology, digital payments, verifiable digital identity, the internet of things, next generation genomics and renewable energy.

The survey found that the top 10 Indian states with high employability are Andhra Pradesh, Delhi, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu and Uttar Pradesh. Except for Uttar Pradesh which falls in the group of 11, according to our classification, eight are group of 19 states, while Madhya Pradesh belongs to group of two states. The linking of courses with industry requirements, the survey found out, is key for the course having high employability potential. By this criterion, information and computer sciences have an employability potential of 64.5 per cent and 56.5 per cent, respectively while Industrial Training Institutes (ITI) and polytechnics score low, primarily due to their low industry connect.<sup>2</sup>

## **Vocational Training in India**

Major vocational training schemes in India are: (i) Craftsman Training Scheme (CTS); (ii) Apprenticeship Training Scheme (ATS); (iii) Skill Development Initiative Scheme (SDIS).

### **Craftsman Training Scheme**

The Craftsman Training Scheme (CTS) was introduced by the Government of India in 1950 to ensure a steady flow of skilled workers in different trades for the domestic industry. The scheme, the most important in the field of vocational training, has been training craftsmen to meet the existing as well as future manpower needs, through the vast network of ITIs across the various states and union territories in the country. The Central Government initially set up 50 Industrial Training Institutes (ITIs). However, the day-to-day administration of the ITIs under

the CTS was transferred to the state governments and union territory administrations with effect from 1956. But, the financial control of the ITIs in the states, as well as union territory administrations, was transferred to them from April 1, 1969, as a result of the decision of National Development Council. Financial assistance was given to them by the Central Government in the form of bulk grants in consultation with the Planning Commission and the ministry of finance, Government of India. Several new private ITIs were established in 1950s in southern states, mostly in Kerala, Karnataka and Andhra Pradesh, from where the trained craftsmen found placement in the Gulf countries. In the year 1980, there were 831 ITIs and the number went up to 1887 in 1987. It was during this period that the private training institutes were distinguished from government Training Institutes by designating them as Industrial Training Centres (ITCs). At the end of 2015-16, there were 12,412 ITIs - 2,051 government and 10,361 private - with a total capacity of 25,51,330 - 6,93,925 government and 18,57,405 private. These ITIs conduct courses of one to two-year duration. The entry qualification is Class X or XII under the 10+2 system of education.

### **Apprenticeship Training Scheme (ATS)**

The National Apprenticeship Training Scheme (ATS) was started on voluntary basis in 1959. But when the desired result was not achieved from the voluntary Apprenticeship Scheme, it was decided to modify the existing scheme and implement it through legislation. The Apprentices Act was enacted in 1961 and came into force on March 1, 1962. Initially, the Act envisaged the apprenticeship training of trade apprentices only, but it was amended in 1973 and 1986 to include apprenticeship training for graduates, technicians and technical (vocational) apprentices respectively. The minimum age prescribed for entry into the Apprentice Training Scheme is 14 years and the entry qualification vary from Class 8 to Class 12 under the 10+2 system. The period of training ranges from six months to four years. The training comprises basic training and practical training followed by related instructions as per prescribed syllabus for each trade. Basic training and related instructions are conducted at Basic Training Centres (BTCs) or at Related Instructions Centres (RICs). There are 260 designated trades under the ATS in which 30,165 establishments train of 2.3 lakh trade apprentices, of which 36,000 apprentices are engaged in central public sector undertakings/central government and 1.94 lakh in the state public sector undertakings/ state government departments and the private sector.

### **National Apprenticeship Promotion Scheme (NAPS)**

The National Policy on Skill Development and Entrepreneurship 2015, focuses on apprenticeship, as one of the key programmes. The scheme provides for: (i) Sharing of 25 per cent of the prescribed stipend subject to a maximum of Rs. 1500/- per month per apprentice by the Government of India to all apprentices with the employers; and, (ii) Sharing of the cost of basic training with Basic Training Providers (BTP). The main objective of the scheme is to promote apprenticeship training and to increase the engagement of apprentices from present 2.3 lakh to 50 lakh, cumulatively, by 2020.

### **Skill Development Initiative Scheme (SDIS)**

The Skill Development Initiative Scheme was launched in May 2007 in order to provide skills to youth, particularly, the early school leavers, who face entry barriers because of lack of

required educational quality. The training has been provided through a network of 13,700 vocational training providers throughout the country. Under the scheme, assessment is done by 180 independent Assessing Bodies.<sup>3</sup>

### Training Capacity of Vocational Training Institutions

Data from ministry of skill development and entrepreneurship (MSDE) shows that there are 3925 polytechnics, with a capacity of 1,245, 000, which turn out diploma holder technicians, i.e. 317 per polytechnic. At the end of 2015-16, there were 12,412 Industrial Training Institutes (ITIs) which train out certificate holding technicians - 2,051 government and 10,361 private . The total capacity of these ITIs is 25,51,330, of which 6,93,925 are in government ITIs and 18,57,405 in private ITIs.

There are about 1,647,155 seats in degree (engineering) colleges, that turn out graduate engineers throughout the country, of which only 860,357 seats are filled up. The entire flow of students who aspire to enter the labour market through the formal educational system can be summed up from the table below.

**Table 4**  
Learner Enrolments and % by type of education institutions

Institution	Total	%	Male	Female
School	272,193,771	87	145,414,857	126,778,914
College	32,836,448	10	19,416,839	13,419,609
Vocational	6,449,486	2	4,197,092	2,252,394
Other	3,077,221	1	1,508,643	1,568,578

(Source: *Overview of India's Skill Development Landscape* <http://www.britishcouncil.org>)

It can be seen from the above table that a total of 314,556,926 youth enter the education system, of which 42,363,155 enrol for higher education, including vocational skills. The government ITIs and polytechnics that produce the formal vocationally trained skilled workforce, enrol about 3,796,330.

The capacity of institutions to train skilled manpower is limited and therefore we have a high percentage of informally trained manpower in various industries. In the table below, we present information relating to the share of the employed and unemployed, among those who are trained formally and informally.

**Table 5**

Share of employed and unemployed of those trained formal and informal

Service/industry Group	Formal	Formal	Informal	Informal
	Employed	Unemployed	Employed	Unemployed
Agri & Food Processing	88	12	98.3	1.7
Automobile	89.1	10.9	97.9	2.1
Beauty & Wellness	60.8	39.2	81.8	18.2
Banks, Financial Services, Insurance	88.4	11.6	87.3	12.7
Capital goods	74.7	25.3	100	0
Construction	85.1	14.9	98.2	1.8
Electronics	74	26	95.3	4.7
Gems & Jewellery	97.2	2.8	99	1
Healthcare	91.1	8.9	97.1	2.9
Plumbing	90.7	9.3	98.9	1.1
IT/ITES	70.1	29.9	84.2	15.8
Leather	96.5	3.5	98.3	1.7
Media & Entertainment	89.5	10.5	95.7	4.3
Retailers	100	0	99	1
Rubber	100	0	100	0
Security	95.1	4.9	100	0
Telecomm	85.8	14.2	97.6	2.4
Khadi & Handicrafts	70.6	29.4	95.9	4.1
Hotels & Catering	82.1	17.9	97.5	2.5
Apparels/Textiles	81.9	18.1	92.1	7.9
Tour/Travel	96.7	3.3	99.2	0.8
Nursing/Midwifery	79.6	20.4	99.2	0.8
Others	82.6	17.4	96.6	3.4

(Source: *Fifth Employment and Unemployment Survey (2015-16)*, Labour Bureau, Government of India)

The percentage share of the unemployed among those informally trained, is lower than those formally trained. Except for the retail sector, the percentage of the employed is higher for the informally trained in all the other sectors, primarily due to fewer formal training channels

and also the trend of passing on skills from one generation to the other, through informal channels, which mostly become part of the on-site training of workers.

### **Section 3: Policies of Skilling and Employability in India**

The first national policy on skills development was formulated in 2009. The policy adopted a three-tier governance structure: The Prime Minister's Council on Skills Development; National Skill Development Coordination Board; and the National Skills Development Corporation. The three-tier structure was formed to facilitate a more proactive and active role for state governments and the private sector. The three-tier governance structure has not been changed barring the members and functionaries in different entities.

The first tier, the Prime Minister's Council on Skills Development, formulates the policy and overall direction, in the form of core principles. The council consists of ministers of human resource development, finance, industry, rural development and labour and employment, among others. It also has other experts in the area of skills development as its members.

The second tier, the National Skills Development Coordination Board, carries and coordinates the skill development efforts of various ministries and state governments. It is headed by the deputy chairman of the National Institution for Transforming India or NITI Aayog which was previously known as the Planning Commission. Secretaries, who are the senior-most bureaucrats in the ministries of human resource development, finance, industry, rural development and labour and employment, among others, are the members of the board. It also has three experts in the area of skills development as its members, along with representation from four state governments.

The third tier, which is the National Skills Development Corporation (NSDC), is the implementation agency of the skills development policies and programmes had been set up as the private sector arm of government. It was established in 2009 to promote participation of industry through partnership funding models. The NSDC is a not-for-profit company in the public-private partnership mode and jointly and is owned jointly, by the government (49 per cent shareholding) and private sector (51 per cent shareholding). The government established an initial corpus fund of Rs 100 billion.<sup>4</sup>

In 2015, India's first Integrated National Policy for Skill Development and Entrepreneurship was announced on July 2. The policy framework outlines an ecosystem of empowerment and for promoting a culture of innovation based entrepreneurship, which can generate wealth and employment, so as to ensure sustainable livelihood for all citizens of the country. Its thrust Areas are that it addresses key obstacles to skilling, including: Low inspirational value; lack of integration with formal education; lack of focus on outcomes; poor quality of training infrastructure and trainers; etc. The Policy seeks to align the supply and demand for skills by bridging the existing skill gaps, promoting industry engagement, operationalising a quality assurance framework, leveraging technology and promoting greater opportunities for apprenticeship training. Equity is also a focus of the Policy, which targets skilling opportunities for the socially/geographically marginalised and disadvantaged groups. Skill development and entrepreneurship programmes for women are a specific focus of the Policy.

In the area of entrepreneurship development, the Policy seeks to educate and equip potential entrepreneurs, both within and outside the formal education system. It also seeks to connect entrepreneurs with mentors, incubators and credit markets, foster an innovation and entrepreneurial culture, improve ease of doing business and promote a focus on social entrepreneurship. The following parameters have been identified for improving quality: Quality assurance framework is embedded in the National Skills Qualifications Framework (NSQF) and market relevant training programmes; fostering mobility for the skilled manpower both laterally and vertically; recognition of prior learning; curriculum alignment; soft skills; and IT skills. One of the biggest challenges facing the skilling sector is the difficulty of connecting supply with demand. A Labour Market Information System (LMIS) will thus be set up to, *inter alia*, serve as the aggregator of both demand and supply of skills and consequently remove the information asymmetry in the market and help connect supply with demand.<sup>5</sup>

### **National Council for Vocational Training (NCVT)**

The NCVT was setup on the recommendation of the National Trade Certification Investigation Committee and Training and Employment Services Organisation Committee (known as Shiva Rao Committee) in August 1956, with the objective of coordinating the training programmes in the country, bringing about uniformity in standards and award certificates of proficiency in craftsmanship on an all India basis.

### **Institutional Framework: National Level Institutions**

The Ministry of Skill Development and Entrepreneurship (MSDE), Government of India (GoI) set up the MSDE in 2014. The Ministry is responsible for: coordinating all skill development efforts across the country; removal of the disconnect between demand and supply of skilled manpower; building the vocational and technical training framework' skill upgradation; building of new skills and; innovative thinking, not only for existing jobs but also jobs that are to be created. The MSDE has set up the National Skills Development Mission (NSDM), which is the national implementation body for skill development initiatives. The NSDM is expected to provide the overall institutional framework to rapidly implement and scale up skill development efforts in the country to meet the target of training approximately 400 million people by the year 2022.

The functional arms of the MSDE are the: National Skill Development Agency (NSDA); National Skill Development Corporation (NSDC); National Skill Development Fund (NSDF); Sector Skill Councils (SSCs); as well as the training partners registered with NSDC.

### **National Skill Development Agency (NSDA)**

The NSDA, an autonomous body of MSDE, was established in 2013-14. The functions of the NSDA include: Taking steps to meet skilling targets; coordinate and harmonise the approach to skill development among various central ministries/departments, state governments, the NSDC and the private sector; anchor and operationalise the National Skills Qualification Framework (NSQF) to ensure that quality and standards meet sector specific requirements; be the nodal agency for State Skill Development Missions; raise extra-budgetary resources for skill development from various sources such as international agencies, including multi-lateral agencies and the private sector; evaluate existing skill development schemes with a view to

assessing their efficacy and suggest corrective actions to make them more effective; create and maintain a national data base related to skill development including development of a dynamic Labour Market Information System (LMIS); take affirmative action for advocacy; ensure that the skilling needs of the disadvantaged and the marginalised groups like Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Castes (OBCs), minorities, women and differently abled persons are taken care of.

### **Sector Skills Councils (SSCs)**

SSCs are national partnership organisations that bring together all the stake holders including the private sector, and the training providers and help in the creation of what is known as a Labour Market Information System (LMIS). The LMIS is expected to estimate the requirements of skilled labour for each industry and inform the training providers the skill gap for each industry which they need to fill through their training facilities. There are at present 41 SSCs.

### **National Skill Development Fund (NSDF)**

The NSDF was set up in 2009 by the Government of India for raising funds both from government and non-government sectors for skill development in the country. Various government bodies contribute to this fund along with other donors to enhance, stimulate and develop the skills of Indian youth through various sector specific programmes. The Fund meets its objectives through the NSDC.

### **State Level Institutions**

#### **State Skill Development Missions (SSDMs)**

As required under the National Policy on Skill Development and Entrepreneurship 2015, the MSDE requires the states to constitute SSDMs for state level coordination with all skills related activities of different departments. As of now 31 states have established SSDMs with the exception of the four smaller states/Union Territories (UT). Under the SIMO programme, the SSDMs will be the nodal bodies for convergence of all skilling initiatives in the states/UTs. They are to ensure alignment of all skill development programmes at the state level with the National Occupational Standards (NOS) and Qualification Packs (QP). The SSDMs also are expected to develop curriculum and teaching/learning materials customised to local needs in alignment with the NOS and QP. Besides these, SSDMs also are to conduct candidate mobilisation activities such as job/skill fairs.<sup>6</sup>

### **Relevant National Programmes for Skill Development**

The Skill India Mission (SIMO) was launched on World Youth Skills Day, July 15, 2015. It seeks to converge and monitor skill development schemes across the country as well as provide subsidised loans to students. The national programmes for skill development, implemented by the MSDE and relevant to the SIMO programme are outlined in this part.

#### **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**

This is the flagship outcome-based skill training scheme of the MSDE implemented by the NSDC. Under this scheme, the trainees are offered a financial reward and a government

certification on successful completion of training and assessment. The key features of the scheme include: Alignment with National Occupational Standards (NOS) and Qualification Packs (QPs); direct fund transfer to successful trainees; demand-driven targets; targets aligned to national flagship programmes and regions; supply side perspective in target fixing; recognition of prior learning; variable amounts of monetary reward; and robust regime for registration of training.

### **‘UMANG’**

This is an entrepreneurship support scheme of the MSDE. The NSDC supports initiatives by the private sector (firms, consortia and NGOs) for skill development. The NSDC does not fund any land or infrastructure – but supports the core skill development activity. Support is provided as a loan or as equity participation (not as a grant). Courses conducted by NSDC funded training partners may or may not be certified by SSCs (if no SSC exists in that domain).

### **‘SANKALP’ and ‘STRIVE’**

To boost the Skill India Mission, the Government of India approved two new World Bank supported schemes with an outlay of Rs 6,655 crore. These are: Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) and; Skill Strengthening for Industrial Value Enhancement (STRIVE). SANKALP is a Rs 4,455 crore centrally sponsored scheme, with a Rs. 3,300 crore loan support from the World Bank, whereas STRIVE is a Rs 2,200 crore Central Sector Scheme, with half of the scheme outlay being provided as loan by the World Bank. Both the schemes aim at institutional reforms and improving the quality and market relevance of skill development training programmes over the long and short term.

### **Vocational Education and Training (VET)**

In the past, many government schemes such as the Vocational Training Improvement Project (VTIP) have focussed on strengthening ITIs and over 1600 ITIs, have already been modernised under the scheme. The STRIVE scheme shall incentivise ITIs to improve overall performance, including apprenticeship, by involving SMEs, business associations and industry clusters. The schemes aim to develop a robust mechanism for delivering quality skill development training by strengthening institutions such as the SSDMs, NSDC, SSCs, it is, NSDA etc. The schemes shall support universalisation of the NSQF including the NQAF across the skill development schemes of the central and state governments, thus ensuring standardisation of skill delivery, content and training output.<sup>7</sup>

### **Section 4: Policy Analysis and Recommendations**

We begin this section by studying the focus of the various states in their development strategies, to understand the skills required by them. In this context, we present in the table, below a list of the focus industries for states where information is available.

**Table 6****Focus Industries/sectors of states**

<b>State</b>	<b>Focus Industries /Sectors</b>
J&K (G19)	Food processing & agro-based, leather, tissue culture, silk, woollen fabric, floriculture and medicinal plants, software, auto-ancillaries, eco-tourism, handicrafts, mining.
HP (G11)	Handloom, Handicrafts, sericulture, textiles and agri/horticulture, aquaculture.
Punjab (G19)	Food processing, automobiles, biotechnology, textiles, electronics, tourism and agro-industries.
Uttara Khand (G19)	Horticulture, floriculture, biotechnology, forestry, handloom, handicrafts, wool, breweries, tourism and tea.
Haryana (G19)	Auto ancillaries, agro-based, food processing, textiles, apparels and garments, electronics/IT, defence & aerospace, renewable energy, pharma & chemicals.
Rajasthan (G11)	IT & ITES, auto-components, renewable energy, tourism, health care, agro & food processing, textiles, minerals, defence manufacturing.
UP (G11)	Handloom & khadi, IT, biotechnology, food processing, tourism, sugar.
Bihar (G11)	Food processing, sugar, power, IT, leather, mines & minerals, textiles, tourism.
Delhi (G19)	IT & ITES, education, financial services & trade, media, R&D, design, biotechnology.
Sikkim (G19)	Pharmaceuticals, eco-tourism, food processing, breweries, corrugated boxes,
Arunachal Pradesh (G11)	Agro-based, textiles, handicrafts, sericulture, minerals, food processing, tourism, engineering & allied.
Nagaland (G11)	Food processing, tourism, agro-based, handloom, handicrafts, sericulture, floriculture, electronics & IT, pharmaceuticals & biotech, cane & bamboo, medicinal & aromatic plants, herbs.
Manipur (G19)	Agro-based, biotech, floriculture, handloom & handicrafts, sericulture, rubber, bamboo, medicinal plants, minerals, IT.
Mizoram (G2)	Food processing, handloom & handicrafts, tea, rubber, coffee, textiles, animal feed, packaging, forest-based.
Tripura (G20)	Rubber, food processing, tea, bamboo, IT, minerals, tourism.
Meghalaya (G11)	Agro-processing, horticulture, handicrafts, handloom, spices, oleoresin, essential oils, animal husbandry and meat processing, minerals, electronics & IT, bamboo, reclaimed wood, tourism & hospitality.
Assam (G19)	Food processing, medicinal & aromatic plants, minerals, power, bamboo, horticulture, IT, hospitality & tourism, biotechnology.

State	Focus Industries /Sectors
West Bengal (G19)	Housing, transport, food processing, MSMEs, textiles, healthcare, education, energy, tourism, financial services, infrastructure.
Jharkhand (G11)	Power generation & distribution, automobile, infrastructure, whitegoods.
Odisha (G11)	Auto & auto-components, agro & food processing, IT and electronics, tourism, pharmaceuticals, handicrafts & textiles, petroleum & petrochemicals.
Chhattisgarh (G11)	Herbs, spices, medicinal plants, automobile & components, mineral based, agro & food processing, pharmaceuticals, IT & ITES, bio-technology & nano-technology, textiles, power generation, transmission & distribution.
Madhya Pradesh (G2)	Auto & auto-components, textiles, tourism, IT & ITES, health care, pharmaceuticals, renewable energy, bio-technology, logistics & warehousing.
Gujarat (G20)	Health care, transport, ports & ship building, agri & food processing, renewable energy, bio and nano technology, MSME.
Maharashtra (G19)	Auto-industry, bio-technology, bio-informatics, infrastructure, floriculture, food processing, IT & ITES, leather.
Andhra Pradesh (G19)	Agro & food processing, pharmaceuticals, bio-technnology, medical equipment, textiles & apparel, electronics, petroleum & chemicals, aerospace, energy, mineral based, leather.
Karnataka (G19)	IT & ITES, agro and food processing, bio-technology, aerospace, animation, electronics, automobiles, textiles and apparel, renewable energy.
Kerala (G19)	Food processing, biotechnology & nano-technology, furniture, garments, rubber, ayurveda, marine products, light engineering.
Tamil Nadu (G19)	Aerospace, automobiles, electronics hardware, heavy engineering, infrastructure, pharmaceuticals, biotechnology, renewable energy, atextiles & apparel, agro and food processing ,IT & ITES.

Note : G11-Group of 11; G19-Group of 19; G2-Group of two states.

(Source: Reports of state governments)

It would be seen from the above table that certain industries are common to many states. These focus industries are: Agro and food processing; IT & ITES; apparels and textiles; handloom and handicrafts; tourism; renewable energy; power; pharmaceuticals; biotechnology; and auto-components.

### Policy Recommendation 1

A mix of new and traditional industries have been chosen for focus by many states. The approach towards skill building will be different for the two sets of industries. For the new industries, the focus should be on education and training, while for the traditional industries the focus will be on modernisation, along with marketing assistance and financial support for artisans.

While we have the perspective of some of the state governments with regard to certain focus industries /industrial sectors, the requirement of the service sectors across all states for skill building is for: beauty & wellness; retail; building; construction and real estate; transport and logistics; tourism and hospitality. The general requirements of all states needs to be taken into consideration while planning for capacities for training in these areas.

## **Policy Recommendation 2**

In the three groups of states (32), data on unemployment rates, for both rural and urban areas and for both men and women together, shows that six in the group of 11 states and 11 in the group of 19 states had levels of unemployment higher than the national average, while none of the two states in the group of two states had levels of unemployment higher than the national average. The states with higher levels of unemployment with levels higher than the national average should be the focus states.

The six states in the group of 11 in the category of states with higher unemployment rates are: Arunachal Pradesh; Bihar, Himachal Pradesh, Meghalaya; Nagaland; and Uttar Pradesh. The 11 states falling in group of 19 states are: Assam, Goa, Jammu & Kashmir, Kerala, Punjab, Sikkim, Tripura, Uttarakhand, Andaman & Nicobar Islands, Tamil Nadu; and Puducherry.

## **Policy Recommendation 3**

As mentioned earlier, Census (2011) data reveals that the following 16 states, have low main workers as compared to the national average. These states mainly belong to the East, Northeast, Central and hilly parts of Northern India. The states are: Jammu & Kashmir (hilly North), Himachal Pradesh (hilly North), Uttarakhand (hilly North), Rajasthan (desert North), Uttar Pradesh (East), Bihar (East), Sikkim (Northeast), Manipur (Northeast), Tripura (Northeast), Assam (Northeast), West Bengal (East), Jharkhand (East), Odisha (East), Chhattisgarh (Central), Madhya Pradesh (Central), Lakshwadeep (West, tiny Island). It is therefore necessary that the number of main workers-workers who get employment for more than six months in a year are increased.

## **Policy Recommendation 4**

### **LWE Districts - Need for a Separate Strategy**

The Left Wing Extremism (LWE) affected districts have a separate set of problems stemming from inaccessibility (due to forests, rugged mountains, inhospitable terrain, extreme climate) making the region rather isolated. But the region also has exclusion issues based on the separate social identity of its population (who are predominantly tribals). The inaccessibility of the area is the main issue that thwarts economic development and creates a sense of relative deprivation among the population. At the same time, large scale migration from these areas is restricted by the people's attachment to their ancestral lands, thereby insulating the area from social transformation. Due to lack of the state's penetration into these inaccessible areas, the population develops a strong sense of social/ cultural identity, which proves very helpful for the insurgents as it provides them an opportunity to attract the target population through social control.

LWE areas in India include 90 districts spread across 11 states – Andhra Pradesh, Telengana, Bihar, Chhattisgarh, Maharashtra, Jharkhand, Odisha, Madhya Pradesh, Uttar Pradesh, Kerala and West Bengal. Of these the greater focus is on 34 severely affected LWE districts in seven states. It would be seen that most of the states fall into our group of 11 states, which are relatively underdeveloped.

Note: Since these figures undergo routine revisions, the latest Government of India published list of LWE districts and the districts which are also in the aspirational category of districts should be referred to in this context.

### **Aspirational Districts: A Useful Data-Base for Development of LWE Districts**

The Aspirational Districts Programme (ADP), which focuses on districts competing with each other to become the best in the states and the country was launched the in January 2018. The programme aims at expeditiously transforming the 115 districts, identified from across 28 states, in a transparent manner. There are three core aspects that frame the structure of the programme – convergence (of central and state schemes); collaboration (of central, state-level ‘Prabhari’ officers and district collectors and competition among districts. The programme which also includes 35 LWE districts throws up a wealth of information, which provides very useful clues for the overall development of not only the 115 districts, but the entire country, including the LWE districts.

The ADP focuses on five development indicators which include: health & nutrition, education, agriculture and water resources, financial inclusion, and skill development. It also seeks to provide basic infrastructure such as roads, potable water, rural electricity, individual household toilets. The ADP envisages a collaborative approach with team effort, focusing on the strength of each district, identifying the low-hanging fruit and measuring the progress and rank of each district. It has thrown up useful information, among other indicators, on health and education parameters by identifying the top three and bottom three states in terms of their achievements in these areas. It would be observed from the table that many of the bottom ranking states are in group of 11 states and are affected by the LWE problem.

**Table 7**

Heath and Education Indicators of top and bottom three states (April 2018)

State/top/bottom	Stunting below 5 years (NFHS'15-16)	% of children	Group of states
Kerala		19.7	19
Goa		20.1	19
Tripura		24.3	19
Meghalaya		42.8	11
Jharkhand		43.9	11 (LWE)
Bihar		47.8	11 (LWE)
	Infant mortality (NFHS 15-16)	Per 1000 live births	
A & N islands		10	19
Goa		13	19
Kerala		15	19

State/top/bottom	Stunting below 5 years (NFHS'15-16)	% of children	Group of states
UP		64	11 (LWE)
Chhattisgarh		54	11 (LWE)
Bihar		48	11 (LWE)
	Maternal mortality/1000 (NFHS'15-16)		
Kerala		61	19 (LWE)
Maharashtra		68	19 (LWE)
Tamil Nadu		79	19
Assam		300	11
UP/Uttarakhand		285	11
Rajasthan		244	11
	Education (Cl V math score)	(NAS, NCERT, 2015).	
Tamil Nadu		56	19
Karnataka		55	19
Manipur		55	19
Uttarakhand		39	11
Arunachal Pradesh		39	11
Chhattisgarh		32	11 (LWE)
	% schools with computers	For Children	
Kerala		89	19
Gujarat		75	19
Tamil Nadu		57	19
Assam		1.2	19
Chhattisgarh		1.5	11 (LWE)
Meghalaya		1.7	11
	Total Bed density	Per 1000 pop	
Goa		4.39	19
Sikkim		4.19	19
Himachal Pradesh		2.96	11
Uttar Pradesh, Jharkhand, Bihar		0.62, 0.57, 0.24	11 (all LWE)

(Source: A. Kanth, Presentation delivered at CVC, Transformation of Aspirational Districts- A New India by 2022, July 26.2018, www.cvc.nic.in)

We next should refer to the Government's latest list of top 20 and bottom 20 districts based on a composite baseline ranking of the aspirational districts and from the five parameters mentioned above. As of April 2018, it is interesting to note that there are more LWE districts (seven out of 20) in the list of better performing districts as compared to the list of bottom 20 performing districts, where there are only four of them. This trend is quite contrary to the expected trend where one would expect more LWE districts to figure in the list of bottom performing districts.

An important lesson which emerges from this analysis is that development may be a necessary condition, but not a sufficient condition, for these districts to come out of the problem of LWE. While the problem of LWE gives an added dimension to the problem of backwardness of these districts, merely addressing the problems through a development oriented approach or a security oriented approach, may not resolve all the issues. While no doubt they are important, it must be emphasised that the quality of the development process is important.

## Policy Recommendation 5

Along with improving health, education, financial literacy and general infra-structure it should be ensured that a holistic development of the local society takes place which, to begin with, must allow a greater say to the local community in deciding the development priorities of the region, for they are the ones who best understand the local development imperatives. Local knowledge of resources is the starting point for any development process including skills. It is therefore necessary that all plans for skilling the local people must integrate their local knowledge and skills with what they are taught, through main stream education. Any external intervention will have to take this aspect into consideration and the integration of these districts with the outside world for their natural resources, which are mainly forest and minerals, may not be the appropriate strategy to bring about the development of the region. On the contrary, such an approach has often resulted in dis-empowerment of the local communities, resulting in their economic isolation. It would be appropriate if the natural resources of the region are put to the local community's use with the help of science and technology which is inclusive in nature and employment generating, for the local people.

## Section 5: Concluding observations

### State-wise, Percent Working Population (Main, Male and Female)

S No.	State	Working population as % of Total	Main workers as % of total working	Male main workers as % of male working	Female main workers as % of female working
1	All India	39.8	75.2	82.8	58.5
2	J&K	34.5	61.2	72.2	30.2
3	HP	51.8	57.9	70.4	41.1
4	Punjab	35.7	85.3	89.9	65.1
5	Chandigarh	38.3	95.9	96.6	90.5
6	Uttarakhand	38.4	74.1	81.1	60.5
7	Haryana	35.2	78.7	86.1	54.7
8	Delhi	33.3	94.9	95.8	90.2
9	Rajasthan	43.5	70.5	83.3	50.2
10	UP	32.9	70.4	75.1	45.4
11	Bihar	33.3	61.5	68.5	43.0
12	Sikkim	50.5	74.8	82.5	61.4
13	Arunachal Pradesh	42.5	81.5	85.9	74.8
14	Nagaland	49.2	76.1	80.8	70.0

S No.	State	Working population as % of Total	Main workers as % of total working	Male main workers as % of male working	Female main workers as % of female working
15	Manipur	45.7	74.7	51.4	63.5
16	Mizoram	44.3	85.3	90.6	77.4
17	Tripura	40.0	73.3	84.9	44.6
18	Meghalaya	39.9	77.7	83.2	69.7
19	Assam	38.3	72.6	82.3	48.2
20	West Bengal	38.1	73.9	81.1	49.8
21	Jharkhand	39.7	52.0	62.1	33.9
22	Odisha	41.8	61.0	73.9	33.9
23	Chhatisgarh	47.7	67.7	78.5	52.3
24	MP	43.5	71.9	81.2	55.5
25	Gujarat	41.0	82.2	92.0	56.1
26	Daman & Diu	49.8	96.0	97.3	85.4
27	Dadra & Nagar Haveli	45.7	82.9	85.6	55.9
28	Maharashtra	44.0	88.5	91.9	81.9
29	Andhra Pradesh	46.6	83.8	88.7	76.0
30	Karnataka	45.6	83.9	89.5	73.4
31	Goa	39.6	82.5	85.1	75.5
32	Lakshadweep	29.1	57.6	59.6	48.5
33	Kerala	34.8	80.3	84.9	67.9
34	Tamil Nadu	45.6	85.0	88.4	78.4
35	Puducherry	35.6	89.8	92.0	83.2
36	A&N Islands	40.1	82.5	85.7	70.4

(Source: Census of India, 2011)

All skill development programmes must begin at the primary school level and as children drop out, which according to estimates is 36 per cent of the children enrolled. This took place mainly between classes I to VII in 2013-14. The vocationalisation of education therefore should be introduced to prevent such drop-outs. A strong curriculum of vocational education must take into consideration the local resources and natural skills of the region. The children that reach the secondary or the higher secondary levels must be encouraged to take up trades either in Industrial Training Institutes (ITI), polytechnics and engineering, or any other technical degree courses which would give them jobs.

A careful assessment of the human resources and career counselling must begin very early in the curriculum courses in schools and integrated manpower planning at the district level should be encouraged. This should dovetail with the local resources of the region so that a complete match between human and material capital takes place, which could then be aggregated at the state level for each state, which ultimately aggregates to the nation's wealth and resources.

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