Sustaining India’s growth by accelerating manufacturing

August 2017
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It is heartening to know that India is the fastest growing major economy in the world and will continue to be so in the coming years. According to the World Bank’s Global Economic Prospects, June 2017, India is projected to grow at a strong 7.2% this year and at 7.5% and 7.7% in the next two years. The mid-year survey of the economy, released recently by the chief economic adviser, reiterates optimism in the economy stemming largely from the launch of Goods and Services Tax (GST), besides macro-economic and financial market stability.

Equally heartening is the fact that manufacturing and trade are picking up in the country. India’s overall exports grew by 3.94% to US$22543.80 million in the month of July 2017, the eleventh straight month of increase, and exports of engineering goods to China alone grew 123% to US$629 million during April–June this fiscal.

Robust domestic demand, improved FDI, increase in exports, higher infrastructure spending and capital formation, and supportive fiscal and monetary policies suggest India’s manufacturing sector is headed for a robust growth.

The government recent Banking Regulations Amendment Ordinance is a positive step to address problems of non-performing assets (NPAs), that have been clogging the Indian banking system. The government seems committed on providing a conducive environment for growth of manufacturing. The Prime Minister in the 71st Independence Day speech said that good governance is about speed and simplification of processes. He also emphasized that post GST efficiency in transportation sector has increased by 30%.

Signs of the Indian economy’s progress is evident. It had the highest improvement in the World Economic Forum’s Global Competitiveness Index, 2016-17, moving up 16 spots to the 39th rank. Improving public institutions, opening the economy to foreign investors and international trade, and increasing transparency in the financial system – the basic parameters used in this index – will provide impetus to the country’s manufacturing sector.

Under the Make in India initiative, the Government of India aims to increase the share of the manufacturing sector in the GDP to 25%, from the current 16%, and to create 100 million new jobs by 2022. These efforts will help elevate India’s manufacturing sector.

This suggests that the manufacturing sector in each Indian state and union territory (UT) has the potential to grow either directly – by setting up new industries – or by creating ancillary facilities, infrastructure and necessary forward backward linkages to existing ones. The best way to grow is to focus on industries where the particular state has competitive edge over others in terms of raw material availability, demand, user industries, logistics and availability of skilled manpower, besides geographical location.

This report intends to highlight the comparative advantage each state has over others, their potential strengths and the government’s policy initiatives gauged through the Ease of Doing Business (EoDB) environment.

EoDB rankings have encouraged states and UTs to take proactive measures in implementing reforms, which, along with policy initiatives, will have a positive impact on the growth of their manufacturing sector.

We hope you find this publication useful.

Amit Khandelwal
Partner and National Director, Transactions Advisory Services
EY
The Indian manufacturing sector seems to be emerging from an almost stagnant state in the recent past and heading toward a path of growth. This is exemplified by the significant growth of the sector in the last 28 months. This turnaround has been acknowledged by various multilateral organizations, including the International Monetary Fund, which recently described the Indian economy as one of the few “bright spots” in the global economy. However, there remains room for pushing the growth even further, as the recovery is slow and fragile.

In the last two and a half years, the Government has started to recognize and address the challenges faced by the sector through various initiatives. One such initiative, Make in India, aims to provide global recognition to the Indian economy, facilitate investment and build best-in-class manufacturing infrastructure. It emphasizes the need for production in India, either by Indian companies or MNCs.

ASSOCHAM is totally aligned with the Make in India campaign, which has already started bearing results. While growth and investments in some of the core sectors remain a matter of concern, the economy is expected to do better in months to come. Similarly, Start-up India will supplement the Government’s efforts to encourage manufacturing in India. However, several barriers need to be overcome for sustainable growth, some of which can be resolved only through Government intervention. While the industry senses the right signals from the Government and is optimistic about long-term prospects, its current mood can best be described as one of cautious optimism.

The report intends to find out the current state of manufacturing in states of India along with the suggestions for those states where it can be kick-started with push from the Government.

I hope this report will be helpful for all stakeholders including respective state governments in aligning their policies with goals and objectives.

Sandeep Jajodia
President, ASSOCHAM
Chairman & Managing Director, Monnet Group

As other markets stumble and slow, India has emerged as the bright light of economic growth around the world. Global manufacturers cannot afford to ignore India any longer. In part, this is because domestic consumption is on the rise. Supported by growing consumer affluence and strong economic growth, India’s domestic market has become one of the largest in the world. And as the Government invests further into infrastructure such as roads, rail and ports, the domestic market is only expected to grow.

With the uptake of Prime Minister’s Make in India campaign, it is clear that CEOs at multinational manufacturers are hearing the message. The quantum of announcements and signed MoUs is encouraging. Investment is likely pick up pace over the coming months and years as India’s Government moves forward to enact and simplify foreign investment requirements and manufacturing regulation.

If India has to maintain a sustained GDP growth of 9%-10% per annum, it is crucial that the manufacturing sector grows steadily at 14%-15% per annum over the next three decades. The recent push in developing industrial corridors is likely to boost the manufacturing sector along with the opening up of the sector for foreign direct investment (FDI).

The report summarizes the views and expectations of industry leaders and presents their recommendations for creating a vibrant manufacturing sector, and I hope it would provide knowledgeable and actionable insights for stakeholders, including policy makers at both Center and state levels, to facilitate strong, vibrant and sustainable manufacturing-led growth in India.

Sushma Berlia
Chairperson, National Economic Affairs Council, ASSOCHAM
President, Apeejay Stya & Svran Group
Introduction

1.1 Manufacturing sector in India

India accounts for 1.8% of the world’s manufacturing output. Manufacturing contributes around 16% to India’s gross domestic product (GDP). One of the objectives of Make in India is to increase this share to 25% and to create 100 million additional jobs in this sector by 2022.

With services picking up in the early 2000s, manufacturing saw a decline in its contribution to overall GDP. Nevertheless, the role of manufacturing remains very important for India’s economy. The sector is increasingly being recognized as a transformational sector according to Economic Survey of India, 2014-15, registered or formal manufacturing possesses some critical prerequisites for becoming a transformational sector, such as high productivity and rapid growth in productivity. Thus, efforts to encourage formalization of unregistered units and emphasis on skill development will be critical.

Prime Minister Narendra Modi has emphasized on the revival of Indian manufacturing as a top priority under the Make in India campaign.

The survey specifies the five characteristics for the sector to be transformational:

- High levels of productivity, so that incomes can increase
- Rapid rate of growth of productivity in relation to the world frontier as well as rapid growth toward the national frontier
- A strong ability of the dynamic sector to attract resources, thereby spreading the benefits to the rest of the economy
- Alignment of the dynamic sector with a country’s underlying resources, which typically tends to be unskilled labor
- Tradability of the sector, because that determines whether the sector can expand without running into demand constraints
1.2 Objective and methodology for the report

For this report, we identified emerging and leading industries at state levels and attempted to conduct an in-depth analysis of specific industries that can drive growth in the manufacturing sector.

We studied the current state of the manufacturing sector in India, to identify the potential manufacturing hubs for the concerned stakeholders to focus on, in the context of India’s target to achieve 25% GDP contribution from manufacturing by 2022. The target will be the culmination of various factors: growth in number of manufacturing units, decrease in dependence on imports, a favorable regulatory environment and increased investment in India.

Additionally, considering that India aspires to jump 40 positions in World Bank’s Ease of Doing Rank to 90 in 2017-18 from 130 in 2016-17*, we analyzed the potential of the manufacturing sector in achieving this target. In 2015, India stood at 142 among 189 countries in the World Bank’s EoDB Index.

To foster state-level initiatives and growth and to assess the states’ implementation of business reforms, the Government of India (GoI) and the World Bank, along with other private and public organizations, jointly rolled out state EoDB rankings in 2015. These rankings reflect the reforms and regulatory changes states have rolled out to address issues such as infrastructure, legal system and tax regulations to improve the overall business climate and processes in the states. We also analyzed these rankings to better portray the industrial profile of individual states.

Besides analyzing the state of manufacturing in different states and EoDB, we also attempted to analyze the manufacturing sector across states by conducting an in-depth study to understand the basic parameters of industrial development. We assigned composite scores to states based on specific and more representative industrial characteristics using data from the latest Annual Survey of Industries (ASI) in 2014–15.

1.2.(a) Weighted average method

A weight was assigned to each parameter. Some parameters such as gross capital formation (GCF) and profits were assigned higher weightage over others to depict their relevance for such as gross capital formation (GCF) and profits were assigned higher weightage over others to depict their relevance for understanding the basic parameters of industrial development. We assigned composite scores to states based on specific and more representative industrial characteristics using data from the latest Annual Survey of Industries (ASI) in 2014–15.

1.2.(b) Regression analysis

To identify factors that impact the level of production, we conducted a regression analysis using ASI (2014–15) data. The following state-wise data parameters were chosen to run regression on the value of output:

- Wages paid to workers
- Capital invested
- Value of inputs
- Lagged profit value (profits generated by manufacturing units in the previous year)

Each of the parameters, including the value of output, was standardized by dividing it with its corresponding all-India-level figures and thus deriving the state-wise proportions.

The regression model was found to be significant, at adjusted R square of over 90%, implying that over 90% of the production output value is explained by these variables. Each of the coefficients of these variables is significant, but value of inputs has the highest coefficient and hence has the strongest impact on the level of production, reinstating that raw material is the most significant parameter to derive the value of the output.

Backward linkage plays a key role in developing a robust manufacturing sector. Based on the state-level manufacturing-specific research, we have categorized the states as “leading hubs,” “aspiring hubs” and “hubs that need to realise the potential.”

The report also includes the current status of the manufacturing sector in the states and emerging industries across the states, and makes suggestions for what potential hubs can do to leverage their high growth position to drive the economy.

1.2.(c) The findings are summarized in the table below:

<table>
<thead>
<tr>
<th>Category</th>
<th>State</th>
<th>EoDB rank (2016)</th>
<th>Contribution of industry to state GDP (2015-16)*</th>
<th>State’s value of output as a % of India’s value of output†</th>
<th>Weighted average score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading hubs</td>
<td>Gujarat (includes UTs of Dadra &amp; Nagar Haveli and Daman &amp; Diu)</td>
<td>3</td>
<td>38.8%</td>
<td>20.8%</td>
<td>20.99</td>
</tr>
<tr>
<td></td>
<td>Maharashtra</td>
<td>10</td>
<td>25.84%</td>
<td>16.3%</td>
<td>18.87</td>
</tr>
<tr>
<td></td>
<td>Tamil Nadu (includes UT of Puducherry)</td>
<td>18</td>
<td>26.15%</td>
<td>10.5%</td>
<td>7.50</td>
</tr>
<tr>
<td></td>
<td>Karnataka</td>
<td>13</td>
<td>22.97%</td>
<td>6.7%</td>
<td>5.66</td>
</tr>
<tr>
<td></td>
<td>Uttar Pradesh</td>
<td>14</td>
<td>24.82%</td>
<td>6.1%</td>
<td>4.90</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>60.4%</td>
<td>57.92</td>
<td></td>
</tr>
<tr>
<td>Potential hubs</td>
<td>Haryana</td>
<td>6</td>
<td>30.6%</td>
<td>5.3%</td>
<td>4.72</td>
</tr>
<tr>
<td></td>
<td>Andhra Pradesh</td>
<td>1</td>
<td>23.61%</td>
<td>3.7%</td>
<td>3.90</td>
</tr>
<tr>
<td></td>
<td>Rajasthan</td>
<td>8</td>
<td>29%</td>
<td>3.2%</td>
<td>3.62</td>
</tr>
<tr>
<td></td>
<td>Telangana</td>
<td>1</td>
<td>20.40%</td>
<td>2.3%</td>
<td>3.26</td>
</tr>
<tr>
<td></td>
<td>Uttarakhand</td>
<td>9</td>
<td>46.48%</td>
<td>2.8%</td>
<td>3.08</td>
</tr>
<tr>
<td></td>
<td>Madhya Pradesh</td>
<td>5</td>
<td>7.80%</td>
<td>2.7%</td>
<td>2.42</td>
</tr>
<tr>
<td></td>
<td>Punjab (includes UT of Chandigarh)</td>
<td>12</td>
<td>22.68%</td>
<td>2.8%</td>
<td>2.42</td>
</tr>
<tr>
<td></td>
<td>Chhattisgarh</td>
<td>4</td>
<td>37.6%</td>
<td>1.7%</td>
<td>2.40</td>
</tr>
<tr>
<td></td>
<td>West Bengal (includes UT of Andaman &amp; Nicobar Islands)</td>
<td>15</td>
<td>67.73%</td>
<td>3.3%</td>
<td>2.17</td>
</tr>
<tr>
<td></td>
<td>Himachal Pradesh</td>
<td>17</td>
<td>35.96%</td>
<td>1.8%</td>
<td>2.14</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>30.1%</td>
<td>30.12</td>
<td></td>
</tr>
<tr>
<td>Aspiring hubs</td>
<td>Jharkhand</td>
<td>7</td>
<td>23.45%</td>
<td>1.8%</td>
<td>1.95</td>
</tr>
<tr>
<td></td>
<td>Delhi (NCT)</td>
<td>19</td>
<td>15.48%</td>
<td>0.9%</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>Odisha</td>
<td>11</td>
<td>32.8%</td>
<td>1.9%</td>
<td>1.70</td>
</tr>
<tr>
<td></td>
<td>Kerala (includes Lakshadweep)</td>
<td>20</td>
<td>19.51%</td>
<td>1.9%</td>
<td>1.65</td>
</tr>
<tr>
<td></td>
<td>Goa</td>
<td>21</td>
<td>39.15%</td>
<td>0.7%</td>
<td>1.09</td>
</tr>
<tr>
<td></td>
<td>Assam</td>
<td>24</td>
<td>20.97%</td>
<td>0.7%</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td>Bihar</td>
<td>16</td>
<td>17.82%</td>
<td>0.9%</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>Jammu &amp; Kashmir</td>
<td>31</td>
<td>25.07%</td>
<td>0.3%</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td>Sikkim</td>
<td>30</td>
<td>67.73%</td>
<td>0.1%</td>
<td>0.30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>9.4%</td>
<td>11.16</td>
<td></td>
</tr>
<tr>
<td>Hubs that need to realise the potential</td>
<td>Tripura</td>
<td>22</td>
<td>15.74%</td>
<td>0.022%</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>Meghalaya</td>
<td>31</td>
<td>30.85%</td>
<td>0.06%</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Arunachal Pradesh</td>
<td>31</td>
<td>23.92%</td>
<td>0.02%</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Nagaland</td>
<td>26</td>
<td>14.25%</td>
<td>0.007%</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Manipur</td>
<td>28</td>
<td>20.62%</td>
<td>0.005%</td>
<td>0.02</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>0.1%</td>
<td>0.75</td>
<td></td>
</tr>
</tbody>
</table>


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State score:
- \( w1^* = \frac{\text{No. of factories in a state}}{\text{Total no. of factories in India}} + w2^* \frac{\text{No. of workers in a state}}{\text{Total no. of workers in India}} + w3^* \frac{\text{Value of output in a state}}{\text{Total value of output in India}} + w4^* \frac{\text{GCF of a state}}{\text{Total GCF in India}} + w5^* \frac{\text{Industry profits of a state}}{\text{Total industry profits in India}} \)
Analysis of the states

We analyzed states at the micro level and in terms of the state of industrialization, the contribution of the manufacturing sector, potential industries, enabling regulatory framework and the business climate. Based on our findings, states were categorized as follows:

- Leading hubs
- Potential hubs
- Aspiring hubs
- Hubs that need to realize the potential

2.1 Leading manufacturing hubs

In this section, we will focus on a number of developed states and their further potential as India’s leading manufacturing hubs. We will also analyze the potential industries, their EoDB and their further potential as India’s leading manufacturing hubs.

Gujarat

Gujarat contributes to 7.5% of India’s GDP, 19% of India’s industrial output and 19% of India’s exports. It has India’s third-largest wind (3,900 MW) and solar (1,100 MW) capacity. It is a power-surplus state with round the clock power supply.

Highlights:
- The automobile sector accounts for 13% of total FDI received by Gujarat. Investments of US$2 billion in 2015 and additional US$3.2 billion is pledged by 2020 make Gujarat Asia’s largest automobile and auto component hub.
- The state’s Mundra Port, with a capacity of 180 Million Metric Tonnes Per Annum (MMTPA), has the strongest port infrastructure in the country.
- Gujarat accounts for 12% of the total textile export from the country and is the largest producer and exporter of cotton and the largest producer of denim, manmade and filament fabric in India.

Gujarat’s contribution to India’s key industries

![Gujarat's contribution to India’s key industries](https://example.com/gujarat-key-industries.png)


Maharashtra

Maharashtra has historically been an industrialized state and continues to be so. It is the highest contributor (approximately 15%) to India’s GDP.

- Maharashtra automotive cluster: Automotive is one of the most significant clusters in the state, adding 50.9% to the country’s net added value and 35.1% to output. The automobile cluster also accounts for 10.4% of total employment in the state.
- The state has implemented a Package Scheme of Incentives (PSI) for the expansion of industrial units in less industrial areas. Under the scheme, during 2016-17, INR 1,933 crore would be disbursed as incentives to eligible MSMEs, large scale industries and mega projects.
- Textile: A textile policy was formulated in 2012 with the aim to raise processing units at various levels. Banks have sanctioned 2,497 textile projects with proposed investment of INR 16,371.30 crore and expected employment of 2,46 lakh.
- Minerals: The total potential mineral area in the state is about 19% of the state’s total geographical area. As on 31 March 2016, in all 289 mines were functional in the state. The total value of minerals extracted during 2016-17 (up to September 2016) was INR 2,229 crore.

Karnataka

Karnataka has 60% of India’s biotech units and the second largest contribution to the industry’s revenue. The machine tools and heavy engineering sector is one of the fastest growing sectors in Karnataka, growing at compound annual growth rate (CAGR) of 17.50%. The state exports engineering products to countries such as Germany, China, South Korea, Brazil, the US, Malaysia, Thailand, South Africa and Singapore of all Indian aircraft and spacecraft.

![Proposed Investment in Karnataka](https://example.com/karnataka-investment.png)

Source: Department of Industrial Policy & Promotion

Top products in Karnataka in 2015-16 (by investment)

- Chemical products: 139
- Rubber and plastic: 185
- Fabricated metal products: 250
- Textiles: 420
- Food product and beverages: 542
- Wearing apparels: 1,842
- Machinery and equipment: 2,245

Source: Ministry of Commerce & Industry

- Called the knowledge hub of India, Karnataka has the potential to expand its industrial sector through the IT and services industry.
The state has rolled out the New Industrial Policy 2014–2019, which provides the following package of incentives to industrial units:

- **Investments and fixed capital creation**: Interest-free loan to large, mega, ultra-mega and super-mega enterprises on net Value Added Tax (VAT) and Central Sales Tax (CST)
- **Taxation**: Exemption of entry tax on plant and machinery for a period of 3 to 5 years and 100% on raw material for period of 5 to 8 years
- **Exemption on VAT and CST**: Exemption of VAT and CST
- **MSMEs**: 100% exemption from tax on electricity tariff, Interest subsidy of 5% for period of 4 years to 7 years
- **Incentives for technology upgrade and quality certification of MSMEs**:

Tamil Nadu

Tamil Nadu has a strong presence in automobile and auto components, textile, electronic hardware and heavy machinery and has high export intensity.

**Key policy initiative includes:**

- **Land**: Allotment of land at 50% subsidized rate and 50% stamp duty concession on land
- **Taxation**: Reduction in the minimum investment required for obtaining VAT rebate to INR 10 crore from INR 50 crore
- **Others**: 100% exemption from stamp duty on lease deed registration, Capital subsidy increased to 2 times from 1.5 times

**GSDP trend of Tamil Nadu**

<table>
<thead>
<tr>
<th>Year</th>
<th>GSDP (in INR crore)</th>
<th>Growth Rate of GSDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-13</td>
<td>8,55,481</td>
<td>-</td>
</tr>
<tr>
<td>2013-14</td>
<td>9,71,090</td>
<td>13.51%</td>
</tr>
<tr>
<td>2014-15</td>
<td>10,92,564</td>
<td>12.51%</td>
</tr>
<tr>
<td>2015-16</td>
<td>12,12,668</td>
<td>10.99%</td>
</tr>
</tbody>
</table>

Source: Ministry of Statistics and Program Implementation

**Tamil Nadu’s 1992 Industrial Policy** attracted leading global companies such as Ford and Hyundai; the introduction of the Industrial Policy (2003) attracted leading foreign companies such as Nokia, Flextronics and Foxconn.

It is a major exporter of leather and leather goods, textiles and garments, pharmaceuticals, spices, agro-products, marine products and electronic hardware, industrial exports in 2013-14.

It has contributed 35%-40% to total yarn production in India over the last 5 years.

It is one of the leading states in wind power generation, with an installed capacity of 7,145 MW. The renewable energy capacity of the state is 30% of the country’s capacity.

Uttar Pradesh

- The main industries in Uttar Pradesh are cement, Vanaspati oil, sugar, cotton textile, bangle and glass, sugar and jute. The economy of Uttar Pradesh depends majorly on agriculture, engaging 66% of the population.
- Uttar Pradesh has a large pool of skilled, semi-skilled and unskilled labor.
- It is the largest producer of food grains in India, accounting for about 18.39% of the country’s total food grain output in 2015–16; it can drive growth in the agro processing sector in the state.
- The state is a hub for the semiconductor industry with several major players having their research and development centers in Noida.
- The major factor driving the growth in the manufacturing sector is the availability of robust infrastructure, extensive road network, large pool of talent, and various investments and incentives offered by the state government.

**Policy**

<table>
<thead>
<tr>
<th>Incentive area</th>
<th>Incentive description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Uttar Pradesh MSME policy</strong></td>
<td>25% subsidy on power bills for 3 years from commencement</td>
</tr>
<tr>
<td><strong>Uttar Pradesh industrial policy</strong></td>
<td>Up to 25% of reimbursement on land taken up on lease or rent</td>
</tr>
<tr>
<td><strong>Financial incentives</strong></td>
<td>Incentives up to INR 50 lakh given to set up IT hubs in the state</td>
</tr>
<tr>
<td><strong>Investment and employment policy 2016</strong></td>
<td>50% of incentives provided to new units and 25% to existing ones for capital enhancement under the industrial promotion subsidy policy</td>
</tr>
<tr>
<td><strong>Start-up policy 2016</strong></td>
<td>INR 5 lakh provided to every innovative entrepreneur along with INR 2 lakh annually to mentor the project for five years so as to ensure smooth operation of business</td>
</tr>
<tr>
<td><strong>Interest subsidy</strong></td>
<td>5% interest subsidy per annum for 7-year loans</td>
</tr>
<tr>
<td><strong>Stamp duty</strong></td>
<td>100% exemption on stamp duty on purchase of land/lease for IT/ITeS within 3 years of commencement</td>
</tr>
<tr>
<td><strong>Electricity duty</strong></td>
<td>100% exemption on electricity for 5 years after commencement</td>
</tr>
</tbody>
</table>

Source: Ministry of Statistics and Program Implementation

**Growth Rate of GSDP**

Source: Annual Survey of Industries 2014-15

**Industry-wise percentage capital invested in Uttar Pradesh in 2014-15**

Source: Annual Survey of Industries 2014-15
2.2 Potential manufacturing hubs

In this section, we will focus on the upcoming states that have the potential to join the bandwagon of leading manufacturing hubs. We will also look at the potential industries, facilitating factors and regulatory environment in these states, as well as their Ease of Doing Business (EoDB) ranks and this report’s composite scores.

Haryana

Haryana is the second largest contributor to India’s central pool for food grains and is fast becoming an industrially strong state. The state has shown healthy GSDP growth rates in the last 5 years. Implementation of reforms such as single window clearance system, relaxation in labor laws and faster environmental clearance helped Haryana improve its ranking on the EoDB Index to 6 in 2016 from 14 in 2015.

As of 2013, Haryana had 1,670 large and medium enterprises attracting investments of INR 49,000 crore and employing 3.36 lakh people, as well as 90,000 MSMEs with total investments of INR 15,000 crore employing 8.9 lakh people. In 2015, under the new industrial policy, the government created an INR 1,000 crore fund to facilitate loans to MSMEs from banks.

Key challenges:

- A gap continues to exist between rural and urban income levels. Development of villages through stronger linkages with basic infrastructure needs such as water and electricity needs to be ensured.
- The labor laws in the state need to be made stronger since disruptive activities such as strikes often impede the ease of business operations.
- The ease of doing business reforms in Haryana have an effective implementation rate of 40.66%. The report suggests that future areas of improvement should be focused on such as taxation and property registration reforms.

![GSDP trend of Haryana](chart)

<table>
<thead>
<tr>
<th>Year</th>
<th>GSDP (in INR crore)</th>
<th>Growth rate of GSDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>34,762</td>
<td>16.63%</td>
</tr>
<tr>
<td>2014</td>
<td>40,642</td>
<td>15.45%</td>
</tr>
<tr>
<td>2015</td>
<td>43,752</td>
<td>9.18%</td>
</tr>
<tr>
<td>2016</td>
<td>49,194</td>
<td>12.82%</td>
</tr>
<tr>
<td>2017</td>
<td>54,799</td>
<td>10.91%</td>
</tr>
</tbody>
</table>

Source: Ministry of Statistics & Programme Implementation

Andhra Pradesh

Andhra Pradesh is the 8th largest state of India in terms of economy size (2014—15) with GSDP of INR 526,468 crore. The state was divided in 2014, which led to the creation of the state of Telangana. Despite this bifurcation, Andhra Pradesh has maintained its high GDP growth rate.

The state has well-developed communication and infrastructural facilities with extensive land and port connectivity. It has a robust infrastructure: there are 26 National Highways and 10 functional ports. It also has an extremely efficient single-window clearance and fast-track approvals system, which allows entrepreneurs to set up industries in as less as 21 days.

Key challenges:

- Geographical division has affected Andhra Pradesh in terms of investment opportunities.
- After the division, 40% of the land in the Rayalseema region, which is not conducive for agriculture, comes under Andhra Pradesh. Utilization of this land for industrial activity would be important for the state.

![Proposed investments in Haryana](chart)

<table>
<thead>
<tr>
<th>Year</th>
<th>Proposed Investment (in INR crore)</th>
<th>% of proposed investment in India</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>417</td>
<td>0.79%</td>
</tr>
<tr>
<td>2014</td>
<td>2681</td>
<td>0.66%</td>
</tr>
<tr>
<td>2015</td>
<td>2872</td>
<td>0.92%</td>
</tr>
<tr>
<td>2016</td>
<td>2152</td>
<td>0.51%</td>
</tr>
</tbody>
</table>

Source: Ministry of Commerce & Industry

Opportunities and policy initiatives

- The Industrial Policy has set definite objectives for the state, with focus on manufacturing and increasing its contribution to the state GDP from 9.95% (2013—14) to 15% by 2020 and attracting investments worth INR 2 lakh crore in this sector by the end of 2020.

![Trend in industrial investments](chart)

<table>
<thead>
<tr>
<th>Year</th>
<th>Proposed Investment (in INR crore)</th>
<th>% of proposed investment in India</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>4,321</td>
<td>5.31%</td>
</tr>
<tr>
<td>2014</td>
<td>2,552</td>
<td>5.31%</td>
</tr>
<tr>
<td>2015</td>
<td>2,330</td>
<td>6.85%</td>
</tr>
<tr>
<td>2016</td>
<td>3,446</td>
<td>8.4%</td>
</tr>
</tbody>
</table>

Source: Ministry of Statistics & Programme Implementation

Key stats for upcoming industrial parks

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment (INR 1,000 crores)</td>
<td>11.5</td>
</tr>
<tr>
<td>Expected employment (in 1,000s)</td>
<td>53.14</td>
</tr>
<tr>
<td>Land allotted (in 1,000 acres)</td>
<td>9.9</td>
</tr>
<tr>
<td>Number of parks</td>
<td>219</td>
</tr>
</tbody>
</table>

Source: Andhra Pradesh Industrial Infrastructure Corporation, (A Govt. of Andhra Pradesh Undertaking)
### Rajasthan

Rajasthan is endowed with natural resources, abundant sunshine and minerals, and is among the leading producers of gold, marble, cement, milk, wool, etc. It has a strong potential for solar and wind energy generation.

During 2014–15, the rate of growth of Rajasthan’s GDP (11%) was higher than that of the country’s GDP (7%)$. The Ease of Doing Business (TM) report highlights the top reform as process simplification to get clearances and licenses in order to establish a business unit. This has been possible due to implementation of Single Window Clearance System. So far, this single window clearance system has benefitted projects with implementation of Single Window Clearance System. This has been possible due to implementation of Single Window Clearance System.

<table>
<thead>
<tr>
<th>Incentive area</th>
<th>Incentive description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital investment</td>
<td>15% subsidy</td>
</tr>
<tr>
<td>Operational areas</td>
<td></td>
</tr>
<tr>
<td>Power at INR 1 per unit for 5 years</td>
<td></td>
</tr>
<tr>
<td>Taxation</td>
<td>VAT refund up to 100% for 7 years after commencement of commercial production</td>
</tr>
<tr>
<td>Operational areas</td>
<td>Reimbursement of 100% of stamp duty and transfer duty paid on purchase or lease of land</td>
</tr>
<tr>
<td>Adoption of cleaner technology</td>
<td>25%–35% subsidy on cost of plant and machinery and use of green measures such as green buildings, installation of emission monitoring systems etc.</td>
</tr>
<tr>
<td>Taxation</td>
<td>50% reimbursement of VAT/SGST for a period of 7 years after commencement of commercial production</td>
</tr>
</tbody>
</table>

### Telangana

The GDP of Telangana has been growing at more than 9% plus in the past two years. It is also emerging as a leading IT hub of India, with leading multinational companies such as Google, Facebook and Microsoft setting up offices in the state.

Telangana has a robust production capacity in manufacturing of pharmaceuticals, medicines, clinical and botanical products. These segments alone constitute 54% of the total fixed capital investment of the manufacturing sector. Natural resources, especially coal deposits, are also in abundance in the state.

#### Key challenges:

- There has been rapid decline of the agricultural and allied sector in the state. The crop sector, in particular, has shown negative growth trends, touching a low of (-) 10.3% in 2014–15. The state government is currently focused at forging stronger links between agriculture and industry so that the raw materials required by industry from the agriculture sector can be supplied more efficiently.
- The number of workers employed in industry declined by 7% between 2013–14 and 2014–15 even though the number of factories increased by approximately 6% in the same period, according to ASI. This may be the result of squeezing of manpower by a large number of enterprises.

#### Opportunities and policy initiatives

- Telangana’s policy initiatives termed as T-IDEA, i.e., Telangana State Industrial Development & Entrepreneur Advancement, are extremely innovative.
- One of the major advantages for industries to set up units in Telangana arises from its no. 1 rank in the EoDB Index. One of the key business reforms undertaken by the state is the setting up of the TS-iPASS platform, which allows expedition of approvals and certification of applications.

#### Summary of policy initiatives:

<table>
<thead>
<tr>
<th>Policy</th>
<th>Incentive area</th>
<th>Incentive description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land cost</td>
<td>100% reimbursement of stamp duty and 25% tax rebate on land cost</td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>Fixed power cost at INR 1 per unit for 5 years</td>
<td></td>
</tr>
<tr>
<td>Taxation</td>
<td>Reimbursement of 75% SGST for medium enterprises and 50% for large enterprises for a period of 7 years, and 100% for MSMEs</td>
<td></td>
</tr>
<tr>
<td>Women entrepreneurs</td>
<td>All MSE incentives + additional 10% investment subsidy on fixed capital investment</td>
<td></td>
</tr>
</tbody>
</table>

#### Proposed investment in Telangana

<table>
<thead>
<tr>
<th>Year</th>
<th>Proposed investment in Telangana</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>6225</td>
</tr>
<tr>
<td>2015</td>
<td>10209</td>
</tr>
<tr>
<td>2016</td>
<td>22148</td>
</tr>
</tbody>
</table>

#### GSDP trend of Telangana

- The GSDP of Telangana is growing at more than 9% plus in the past two years. It is also emerging as a leading IT hub of India, with leading multinational companies such as Google, Facebook and Microsoft setting up offices in the state.
- Telangana has a robust production capacity in manufacturing of pharmaceuticals, medicines, clinical and botanical products. These segments alone constitute 54% of the total fixed capital investment of the manufacturing sector. Natural resources, especially coal deposits, are also in abundance in the state.

#### GSDP trend of Rajasthan

- There is a need to increase staff strength across the value chain: technocrats, supervisory staff, and skilled and unskilled workers.
- Rajasthan should focus on investments in capital to introduce new technologies and upgrade the existing ones, as well as increase investment in skilling the workforce.

#### Key requirements:

- There is limited data on mineral availability, hampering decision making and making auctions unattractive.
- The state uses obsolete technologies, and there are limited technological innovations.
Uttarakhand

The GSDP of Uttarakhand increased at a CAGR of 12.4% during 2011–12 to 2015–16. In a matter of one year, from 2015 to 2016, Uttarakhand’s rank in the EoDB Index improved to 9 from 23 as a result of a 96% compliance score on the parameters of the rankings. The state targets to be the “energy state” of the country by tapping the hydropower potential of over 18,175 MW, as identified by the Ministry of Power in 2015; about 28% of the capacity had been developed until then.

Key challenges
► The number of windows behind the single window clearance mechanism needs to be further reduced, to bring the remaining licenses and approvals under one roof.
► Migration: Locals tend to migrate to cities with better education, transportation and medical facilities.
► Geography: About 86% of the land is covered by hills, making it difficult to construct roads.
► Political instability: The state has had nine chief ministers over the past 11 years.
► Small scale industries lack market access due to transportation and financial linkage.

Opportunities and policy initiatives
► The state has 25,294 small scale industries providing employment to 63,599 people. Moreover, there are 1,802 heavy and medium industries with an investment of INR 20,000 crore employing 5 lakh people. Most of the industries are forest-based.
► There are a total of 54,047 handicraft units in the state.
► The presence of minerals such as limestone, marble, rock, phosphate and copper has the potential to boost industries.
► In November 2015, the state government signed an MoU with The Hans Foundation (THF) for the launch of initiatives to sustain the 70 million strong workforce to the rest of the country.
► Construction of the 125 km Rishikesh to Karnprayag rail link addition to the health, education and forest sectors.
► Case of small scale industries (SSIs): In 2014–15, small scale units accounted for 49.1% of production, 82.2% of employment and 99% of working units in Punjab, as per the Economic Survey of Punjab 2016-17. Owing to their size of investment and operations, SSIs tend to have low productivity, limited access to capital and inadequate investment in research and development.

Proposed investment in Uttarakhand

<table>
<thead>
<tr>
<th>Year</th>
<th>Investment in INR crore</th>
<th>% of total proposed investment in India</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1,378</td>
<td>7.7%</td>
</tr>
<tr>
<td>2013</td>
<td>2,012</td>
<td>10.5%</td>
</tr>
<tr>
<td>2014</td>
<td>1,976</td>
<td>10.7%</td>
</tr>
<tr>
<td>2015</td>
<td>2,061</td>
<td>11.2%</td>
</tr>
<tr>
<td>2016</td>
<td>2,764</td>
<td>13.9%</td>
</tr>
</tbody>
</table>

Source: Annual Survey of Industries

MSME policy 2016
25% capital subsidy (maximum INR 25 lakh) and 6% interest subsidy (minimum of INR 5 lakh per unit per annum) to encourage women entrepreneurs

Key challenges:
► Lack of diversification: Madhya Pradesh has always had a predominantly agriculture-based economy rather than an industrialized one. As of 2014, agriculture and allied activities made up 23% of the net state domestic product, while its industrial sector comprised just 1.7%.
► Recent trends suggest that this marked difference is deepening. Industrial growth dipped from 5.05% in 2011–12 to 2.15% in 2013–14. The main problem area was manufacturing, which fell from 3.89% in 2011–12 to 0.13% in 2013–14.

Opportunities and policy initiatives:
► In recent years, 324 MoUs worth INR 451,474 crores have been signed for the development of a variety of industries in the state. Out of these MoUs, 12 have been implemented while 18 are in the process of being implemented. This leaves abundant room for the state’s industries to grow, as over 250 MoUs are yet to be effected.
► The state’s industrial policy also offers attractive incentives for industrial entrepreneurs and businesses to set up units in the state. These include the provision of customized package of fiscal incentives for projects with an investment more than INR 250 million.

Madhya Pradesh

Madhya Pradesh’s performance as an industrial state is consistently improving due to proactive measures taken by the state government in improving the business environment of the state. The development of a 99,403 km road network in recent years has established the state of Madhya Pradesh as a centralized manufacturing and distribution link, which connects the 70 million strong workforce to the rest of the country through government-backed special economic zones (SEZs).

Key challenges:
► Areas of improvement: According to the 2015 EoDB report, Punjab can improve processes for taxes, property registration, construction permits and various inspections to accelerate smooth operation for businesses.
► Case of small scale industries (SSIs): In 2014–15, small scale units accounted for 49.1% of production, 82.2% of employment and 99% of working units in Punjab, as per the Economic Survey of Punjab 2016-17. Owing to their size of investment and operations, SSIs tend to have low productivity, limited access to capital and inadequate investment in research and development.

Punjab

Punjab is already a manufacturing hub for industries such as textiles, readymade garments, hosierly and cycle and cycle parts. Its largest industrial towns are Ludhiana, Amritsar and Jalandhar. Cities such as Mohali, Patiala, Mandi Gobina, Batala, Phagwara and Maleriakot are counted among the emerging manufacturing hubs of the country. In the past few years, Punjab’s absolute GSDP has grown at a slow pace, with growth rate reducing to 9.95% in 2014–15 from 12.42% in 2013–14. Manufacturing in particular has seen a shutdown in some industries along with a reduction in investments (gross capital formation) and slower growth in the value of output.

Key challenges:
► Strong infrastructure: Punjab has the highest density of roads in the country – 1,672 km per 1,000 sq km (in 2011).
► EoDB: Punjab is among the top states for setting up a business in India, as per the 2015 EoDB report. This is because Punjab is the only state whose single window system allows applications for all the licenses.

The state’s policy initiatives are summarized below:

<table>
<thead>
<tr>
<th>Package incentives</th>
<th>Taxation</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>15% subsidy on fixed capital investment</td>
<td>VAT refund for up to 10 years</td>
<td>Interest subsidy of 5% for a period of 7 years for the micro and small scale industry</td>
</tr>
<tr>
<td>15% financial assistance on infrastructure development of industrial parks</td>
<td>Entry tax exemption up to 9 years</td>
<td></td>
</tr>
</tbody>
</table>
Chhattisgarh

Chhattisgarh is a resource-rich state situated in central India. It is one of the fastest developing states with a state GDP of INR 2.60 lakh crore in 2015-16. Between 2004-05 and 2015-16, the GSDP of the state grew at a CAGR of 11.83%. Chhattisgarh's location in central east India and its resource base make it a lucrative investment destination.

West Bengal

With a literacy rate of 76.26%, West Bengal is well poised to provide a large pool of human resource. The state is also very well endowed with natural resources, especially coal, and has abundant minerals and suitable agro-climatic conditions for agriculture, horticulture and fisheries.

Key challenges
- Employment challenges: As per the ASI 2014-2015, only 1% of the total available workforce is currently employed directly in the process of industrial manufacturing. Skilling the workforce for employment in the manufacturing sector is needed.
- Infrastructure bottlenecks: Lack of storage and transportation impedes the processing capabilities of agro-based industries. Cold storages and transport facilities need to be developed further to strengthen links between agriculture and industry.

Opportunities and policy initiatives
- The state has been hosting Global Business Summits every year since 2015. These summits have helped improve the business climate of the state.
- West Bengal has 3,000 acres of land at its disposal to set up new industries and industrial parks as proposed in Global Business Summit 2017. The summit saw investments to the tune of INR 235,290 crore pledged, with the manufacturing sector attracting the majority of it (26.2%).

Incentive Policy

<table>
<thead>
<tr>
<th>Policy</th>
<th>Incentive area</th>
<th>Incentive description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chhattisgarh Industrial Policy 2014-19</td>
<td>Interest subsidy</td>
<td>Subsidies ranging from 25% to 70% on term loans</td>
</tr>
<tr>
<td></td>
<td>Fixed capital investment subsidy</td>
<td>FCI subsidies ranging from 30% to 50% of total fixed capital with larger subsidies to those industries setting up units in backward areas</td>
</tr>
<tr>
<td></td>
<td>Operational areas</td>
<td>100% waiver on electricity duty for a period ranging from 5 years to 10 years from the date of commencement of commercial operations</td>
</tr>
<tr>
<td></td>
<td>Concession in premium on land allotment</td>
<td>20% to 60% exemption on land premium payable on allotment of land for developing industrial parks</td>
</tr>
</tbody>
</table>

Policy

<table>
<thead>
<tr>
<th>Policy</th>
<th>Incentive area</th>
<th>Incentive description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSME policy</td>
<td>New investments</td>
<td>Capital subsidy at 30% of Fixed Capital Investment (FCI) up to maximum of INR 30 lakh per unit to industrial units in border districts Allocation up to INR 25 crore to be made</td>
</tr>
<tr>
<td>Agro and food processing industry</td>
<td>Input tax credit will be provided for all units except wheat and paddy In case of wheat and paddy, this facility will be applicable for units with FCI of at least INR 50 crore No market fee and rural tax on commodities other than wheat and paddy</td>
<td></td>
</tr>
</tbody>
</table>

GSDP trend of Chhattisgarh

[Graph showing GSDP trend of Chhattisgarh]

GSDP trend of West Bengal

[Graph showing GSDP trend of West Bengal]
**2.3 Aspiring hubs**

In this sector section, we will focus on the states and UTs that have been building on their advantages in the manufacturing sector and aspire to be industrial hubs in the short to medium term. We will also analyze the facilitating factors and regulatory environment in the states.

<table>
<thead>
<tr>
<th>EoDB rank</th>
<th>Secondary sector as a % of GSDP</th>
<th>Leading industry</th>
<th>Potential industry</th>
<th>Strengths and opportunities</th>
<th>Policy initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jharkhand</td>
<td>7</td>
<td>23.4%</td>
<td>Mining and mineral extraction</td>
<td>Iron and steel</td>
<td>40% and 32% of India's mineral and coal reserve(s)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Automotive and cement</td>
<td></td>
<td>Subsidy of 20% of fixed capital investment for MSMEs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Handloom, handicraft and sericulture</td>
<td>agri-based industries</td>
<td>100% reimbursement of stamp duty on land directly acquired through consent award/raiyat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>75%-80% VAT incentives on different projects (MSMEs, large, mega and ultra mega)</td>
</tr>
<tr>
<td>Odisha</td>
<td>11</td>
<td>32.8%</td>
<td>Mining and quarry Iron</td>
<td>Steel Ferro alloy Aluminum</td>
<td>Bauxite production in the state increased by 1% between 2015-16 and 2016-17(s)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Electronics, heavy machinery, construction related to education and skill training</td>
<td></td>
<td>Leading producer of coal, mica and copper.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>62% of tussar silk production in India(s)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100% exemption on electricity duty to industries setting up captive power plants</td>
</tr>
<tr>
<td>Bihar</td>
<td>16</td>
<td>17.8%</td>
<td>Rubber and plastics</td>
<td>Chemicals Tobacco Textile</td>
<td>Power: reimbursement of INR 0.25 - INR 1.25 per unit for a period of 5 years based on employment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Food and beverages</td>
<td></td>
<td>Training: reimbursement of training cost upto INR 1,750 - INR 4,000 for every person trained</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Food/agro processing, dairying, handicraft, handloom</td>
<td></td>
<td>Capital subsidy of 10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Petroleum and allied products</td>
<td></td>
<td>No stamp duty on land allotment by government to IDA</td>
</tr>
</tbody>
</table>

**Himachal Pradesh**

Himachal Pradesh is naturally endowed with hydro energy with a power potential of 18,820 MW, of which 11,524 MW has been developed. The state accounts for 13% of the country’s total hydropower potential (as of 31 March 2015)(22).

**Key challenges**

- Poor infrastructure has been impeding industrial growth in the state.
- People have been migrating to plains such as Baddi, Nalagarh and Parwanoo.
- The ease of Doing Business report has cited the Single Window Clearance System as a future area of improvement since Himachal Pradesh lags behind the national average.

**Government policies and opportunities**

- The Department of Environment, Science & Technology (DEST) proposes to develop a Biotechnology Park (BTP) spread over an area of about 35 acres at village Aduwal in Solan under public-private partnership (PPP). The park will have a Biotechnology Incubation Centre and a Biotechnology Park at Limited at Alsindi (Mandi) (Grasim) at Sundernagar (Mandi district), India Cements begun as of May 2015(23).

- The government has issued MoUs for the establishment of plants with major cement players such as Harish Cement (Graisim) at Sundernagar (Mandi district), India Cements Limited at Gumma-Rohaha (Shimla) and Lafarge India Limited at Alsisn (Mandi)(24).

- The state government has approved financial assistance of US$353.1 million under the Rural Infrastructure Development Fund (RIDF) for the execution of 5,238 projects in the state. Out of this allocation, 51% is for rural roads and bridges(25). Total investment generated in Himachal Pradesh is above INR 12,500 crore, number of units set up has grown 28% while growth in employment generation is more than 33%, according to a PIB statement.

**GSDP trend of Himachal Pradesh**

- The GSDP of Himachal Pradesh (in INR crore) has increased by 13.9% in 2012-13, 14.4% in 2013-14, 9.9% in 2014-15 and 9.1% in 2015-16, according to a PIB statement.

**Policy**

<table>
<thead>
<tr>
<th>Policy 2016</th>
<th>Incentive area</th>
<th>Incentive description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial policy</td>
<td>Capital investment subsidy</td>
<td>15% of incentive on plant and machinery subject to a maximum of INR 30 lakh</td>
</tr>
<tr>
<td></td>
<td>Interest subsidy</td>
<td>Interest subsidy at 5% p.a. on term loans, with a ceiling of INR 2 lakh p.a. for a period of 3 years in a thrust sector</td>
</tr>
<tr>
<td>MSME policy 2016</td>
<td>Central transport subsidy</td>
<td>75% of transportation cost of raw material and finished goods</td>
</tr>
<tr>
<td></td>
<td>Financial assistance</td>
<td>Financial assistance for reimbursement of 75% of one-time registration fee and 75% of annual recurring fee for the first 3 years</td>
</tr>
<tr>
<td></td>
<td>Freight subsidy scheme 2013</td>
<td>75% freight subsidy to eligible enterprises except for enterprises in the negative list of freight subsidy scheme up till 5 years from commencement of operations</td>
</tr>
<tr>
<td>State</td>
<td>EoDB rank</td>
<td>Secondary sector as a % of GSDP</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------</td>
<td>-------------------------------</td>
</tr>
</tbody>
</table>
| Kerala      | 20        | 19.5%                         | Handlooms and power looms Rubber IT and electronics Khadi and village industry | Food processing, construction related to tourism and residential | Highest literacy rate of 94%  
Total cargo traffic handled by Cochin port during 2014-15: 215.9 lakh tonnes, with a change of 4% from the previous year  
First international trans-shipment terminal in India | 20% capital subsidy for new manufacturing units in the Electronic system design and manufacturing (ESDM) sector in the state  
Higher rate of investment subsidy to thrust sectors |
| Goa         | 21        | 39.1%                         | Mining  
Tourism-related infrastructure  
Pharmaceuticals | Handicraft, biotechnology and electronics | Literacy rate of over 88.7%  
Iron ore production: 8.3 million tonnes in 2016 (after mining ban was lifted)  
Traffic handled at Mormugao port in 2016–17: 186,40,495 million tonnes | According to Goa investment policy 2014:  
Under special incentives, VAT rebate of 70%/50% on investment to new units set up in thrust areas  
50% and 25% stamp duty payable in backward and other talukas respectively  
Reimbursement of 75% of training cost for prospective Goan employees |
| Assam       | 24        | 21%                           | Tea Oil  
Hydrocarbon Cottage Industry | Hydrocarbons, coal, minerals and food processing | One of the largest economies in the North East  
One of the largest tea gardens in the world, accounting for over 50% of the country’s overall tea production  
Capacity to produce 680 MW of hydro power | State Capital Investment Subsidy: 30% on FCI for micro units  
Maximum 200%, 150% and 100% entitlement on VAT exemption for new macro, small and large units respectively  
Exemption on payment of Entry Tax on plant and machineries brought from other states for all eligible micro, SSI, medium and large scale enterprises |
| Sikkim      | 30        | 67.7%                         | Agro-processing  
Hydroelectric power  
Electronics  
Handlooms  
Handicrafts | Pharmaceuticals | Produces around 80% of large cardamom in India  
High literacy rate of around 81.4%  
Peak hydroelectric potential capacity of 8,000 MW and a steady supply of 3,000 MW | Central Capital Investment Subsidy Scheme 2007: subsidy at 30% of FCI  
Central Interest Subsidy Scheme: Interest subsidy at 3% on the working capital loan  
100% income tax exemption for a period of 10 years |

Jammu & Kashmir 31 25%  
Mineral-based industry  
Handlooms and handicrafts  
IT and pharmaceuticals Gems and jewelry  
Agro and food processing  
Workforce includes skilled weavers and designers of textile products  
The cottage handicrafts and handloom industry provides employment to around 4,1 lakh workers  
Carpet, woolen shawls and paper mâché accounted for 33.9%, 30.2% and 7% of India’s total production of handicrafts (2014-15)  
75% subsidy on the construction of captive water lifting plant for mega projects  
5% interest subsidy capital on working capital  
60% of cost of device reimbursed on installation of online monitoring and high quality pollution control devices in factories/units
<table>
<thead>
<tr>
<th>Union Territories</th>
<th>Secondary sector/SGDP (2015-16)</th>
<th>EnDB Rank</th>
<th>Leading Industries</th>
<th>Emerging Industries</th>
<th>Strengths &amp; Opportunities</th>
<th>Policy Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi NCT</td>
<td>15.48%</td>
<td>19</td>
<td>Construction and Real Estate, Tourism-related infrastructure</td>
<td>Knowledge industry (IT) Logistics</td>
<td>Advantage of being the national capital, Key PPP projects for development: modernization of airport, waste processing complex and solid waste management facilities, 2 SEZs in Delhi specializing in IT and gems and jewelry, Upcoming knowledge park in Nalagarh: area of 700 acres and project cost of US$348.37 million</td>
<td>The Delhi Industrial Policy 2010–21 focused on simplifying business through the following mechanisms: Common application form to reduce the burden of paperwork, Self-certification for knowledge based industries, Simplification in conversion of land from leasehold to freehold through a one-step process, Creation of land banks and clusters for industrial development, Tie-up with top academic institutions such as IIT, AIIMS and NIFT for skill development programs</td>
</tr>
<tr>
<td>Puducherry</td>
<td>43.80%</td>
<td>26</td>
<td>Leather Chemicals Textiles Metallic products Fisheries Light Engineering.</td>
<td>Footwear Marine Products</td>
<td>Part of the smart cities for which France has pledged EUR2 billion, 8,965 industrial units, of which 99% are MSMEs, providing employment to 80% of the workforce (2015), Offices of corporate entities such as IBM and, Wipro due to infrastructure advantages, Proposed food park in Sedarapet, Major reforms such as single window clearance, helpline for investor queries, and computerized system for filing taxes</td>
<td>The Industrial Policy provides the following incentives: 20%–35% subsidy on CI, 25%–100% subsidy on rent, 25% interest subsidy for five years, 25% infrastructure subsidy, Land provided to entrepreneurs on lease for a period of 99 years, Power tariffs as low as INR 3.90/kwh</td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Chandigarh</td>
<td>10.91%</td>
<td>31</td>
<td>Machinery Basic metals Food and beverages</td>
<td>Chandigarh IT Park</td>
<td>Over 2,500 small scale units and around 15 medium and large scale industrial units, International airport, promoting trade for neighboring areas in Punjab, Himachal Pradesh and Haryana, Offices of four major trade promotion organizations: ASSOCHAM, FICCI, CII, and PHDCCI</td>
<td>Starting a business: allows online filing of entrepreneur memorandum, Land: e-stamping facilities for property registrations, Environment: Online consent for pollution and environment-related certificates and clearances, Registrations: Clear timeline for registration services, Taxes: Online system for filing returns under VAT and CST</td>
</tr>
<tr>
<td>Daman &amp; Diu</td>
<td>Included in Gujarat</td>
<td>23</td>
<td>Polyester and cotton yard</td>
<td>Textile industry including yarn and apparel, Pharmaceutical industry, Light engineering, electrical conductors and allied industry, Plastics and plastics products</td>
<td>39 industrial estates made up of 3,292 industrial units, Well connected to the Delhi-Mumbai Industrial corridor.</td>
<td>MSME Policy, 2015: achieve industrial growth rate of 12%–14% per annum; create 40,000 jobs in the next five years; facilitate INR 5,000 crore worth of new investments in the next five years incentives: Capital investment subsidies on 10% investments, Interest subsidy of 5%</td>
</tr>
<tr>
<td>Dadra &amp; Nager Haveli</td>
<td>Included in Maharashtra</td>
<td>25</td>
<td>Yarn processing Pharmaceuticals Electrical products, Chemical products Electrical conductors, Marbles Metal-based units</td>
<td>A 3 MW solar power project commissioned by Bharat Heavy Electrical Ltd 2017</td>
<td>Accounts for 80% of India’s textured yarn, Textile sector provides employment to about 50,000 people, Lowest power tariffs among all state and UTs, at an average of INR 2.75 per unit</td>
<td>Single point interface to enable interaction between investors and government departments for clearances, Simplified combined application form for investors to obtain multiple clearances to purchase land, change land use, establish a factory and operate a plant, Centralized system to check the status of applications</td>
</tr>
</tbody>
</table>
2.4 Realising the potential

In this section, we will look at some states from the North East region that can turn into manufacturing hubs for special industrial products, especially those related to agro-based, fisheries and forest industries. With support from neighboring states and the Central Government, they have the potential to rise to the aspiring category. We will analyze the potential industries, facilitating factors and regulatory environment in these states. These states were seen on the lower spectrum of the scoring as they are primarily based on agriculture. While these states’ GSDP as well as educational and awareness levels have been increasing, geographical and locational constraints have been keeping them away from healthy industrial growth.

Key challenges
1. Geographical constraint: the Northeast region constitutes about 25% of the country’s forest cover, as per India State of Forest Report 2011, limiting the area for constructing roads, railway lines, factories and other manufacturing units.
2. EoDB: the EoDB report highlights that these states need to improve processes and implementation of regulatory reforms to create a favorable environment for businesses.
3. Unemployment: average unemployment rate in these states is high.
4. Political instability: the region is prone to cross-border threats and insurgency.
5. Overall low contribution of manufacturing to the GSDP: these states are heavily dependent on agriculture and animal husbandry.

GSDP growth rates of six northeast states in India(%)  

<table>
<thead>
<tr>
<th>State</th>
<th>2012-13</th>
<th>2013-14</th>
<th>2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripura</td>
<td>12.8</td>
<td>18.1</td>
<td>15.9</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>9.8</td>
<td>4.9</td>
<td>6.4</td>
</tr>
<tr>
<td>Manipur</td>
<td>6.5</td>
<td>17.8</td>
<td>11.4</td>
</tr>
<tr>
<td>Nagaland</td>
<td>15.0</td>
<td>22.0</td>
<td>10.9</td>
</tr>
<tr>
<td>Arunachal</td>
<td>13.4</td>
<td>16.4</td>
<td>14.8</td>
</tr>
<tr>
<td>Mizoram</td>
<td>15.0</td>
<td>23.0</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Source: Ministry of Statistics and Program Implementation, Current prices base year 2011-12

Strengths and opportunities

Arunachal Pradesh
- It has a hydroelectric power potential of 50328 MW. NHPC has signed an MoU with the state to invest US$4.5 billion during the 12th Plan period and already has four ongoing projects.
- During 2014-15, value of mineral production was INR 169 crore.
- Manufacturing of basic metal contributed 62% to the total state output in 2014-15, followed by food products at 11% and petroleum products at 10%.
- State government has set up Arunachal Mineral Development Fund to boost the exploration and extraction of crucial mineral deposits such as coal, dolomite and limestone.
- The textile industry produced 37 metric tons raw silk in 2015-16.

Manipur
- Manipur khadi sales account for around 8% of the total Northeast region khadi sales (2014-15).
- INR 142.63 crore was released to 881 units under the Technology Up-gradation of Food Processing Industries Scheme in 2014-15. INR 29.72 crore and INR 108.00 crore were released to various states during 2013-14 and 2014-15 respectively under the National Mission on Food Processing Scheme (NMFP).
- Manipur’s total hydropower capacity is 122.52 MW, with a potential of 2000 MW.
- The state government is promoting the Loktak Downstream Hydroelectric Project and the Tipaimukh Hydroelectric Project.
- The mineral policy of the state has provided an estimated return on investment of 30%-35% for investors interested in venturing into cement and serpentine projects.
- The state had the highest growth rate of employment (93.57%) according to the All India Report (6th Census).

Meghalaya
- The state’s annual production of flowers is 2,100 tons. There are special incentive packages for farmers under the Technology Mission Scheme on Agriculture.
- Bamboo forests cover more than 14% of the state area. There is immense potential to bring a larger area under cultivation through the National Agroforestry & Bamboo Mission.
- There is prevalence of spices, fruits, aromatic plants, coconuts, cashew and cocoa. Annual horticulture crop production touched 534 thousand tons in 2014-15 according to MOSPI.
- The installed hydroelectricity capacity is 322 MW, which can be scaled up to 2394 MW (in 2015).
- Meghalaya contributed 76 million tons of coal to the country in 2014-15. Industrial estates and areas have been carved out for mining in districts of Byrnihat (259 acres), Umiam (109.67 acres) and many others.

Mizoram
- Bamboo forests cover 31% of Mizoram’s geographical area, with a yield of 3.2 million tonnes per year, as per Economic Survey 2014-15.
- Raw silk production in the state increased from 44 metric tonnes in 2013-14 to 58.6 metric tonnes in 2015-16.
- Mizoram has an estimated potential area of 24,000 hectares for fish farming, of which 4,790 has been utilized.
- The state has the potential to generate 4,500 MW of hydropower, of which 34.31 MW was installed as of June 2016.
Sustaining India's growth by accelerating manufacturing

<table>
<thead>
<tr>
<th>State</th>
<th>Strengths and opportunities</th>
</tr>
</thead>
</table>
| Nagaland | - Nagaland has unexploited reserves of 600 million metric tonnes of crude oil and more than 20 million tonnes of hydrocarbon reserves. The state has 315 million tonnes of coal reserves and 1,038 million tonnes of limestone reserves.  
- While the state’s hydropower installed capacity is 75 MW, its potential is 1,574 MW (as of 2015).  
- Bamboo growing stock covers about 5% of the total stock in the country. The state aims to increase its raw silk production from 631 MT in 2015-16 to 1,700 MT by 2017.  
- Output of wood and products of wood and cork, except furniture, contribute 54% of the value output of the state, as per ASI 2014-15.  
- Production of vegetables and fruits in the state was 971 thousand tonnes during 2015-16. As per the latest ASI data, food products contribute 17% of the total value of output of the state. |
| Tripura  | - New highway projects are currently underway, with the Ministry of Road Transport & Highways planning to inject INR 4,000 crore into road development projects.  
- Rubber-based industries are being encouraged to set up their base in Tripura. As a means to provide an impetus to this sector, the TIDC and Rubber Board, India, have come together to set up a technologically advanced rubber park in Bodhjungnagar with an estimated project cost of INR 23 crore.  
- Integrated parks for promotion of key industries are already functional, such as Bodhjungnagar Growth Centre (238.53 acres), Bodhjungnagar Export Promotion Industrial Park (123.2 acres), Food Processing Park (25 acres).  
- State has vast reserves of natural gas with 97% methane content. Concessional gas pricing and vast reserves offer potential for setting up industries in the sector. |

Northeast Industrial and Investment Promotion Policy (NEIIP), 2007 (revised in 2016)

To promote development of the Northeastern Region (NER), the Ministry of Commerce and Industry has stipulated NEIIP as summarized below.

<table>
<thead>
<tr>
<th>Incentives under NEIIP for units registered between 1 April 2007 and 31 March 2017</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment subsidy</td>
<td>Central capital investment subsidy at 30% of investment in plant and machinery</td>
</tr>
<tr>
<td>Interest subsidy</td>
<td>Interest subsidy on term loans of 5-10 years maturity taken to finance expansion activities of the unit.</td>
</tr>
<tr>
<td>Insurance premium</td>
<td>Reimbursement of insurance premium paid for fixed assets for a period of 10 years</td>
</tr>
<tr>
<td>Exemptions</td>
<td>Excise duty and income tax exemption for 10 years</td>
</tr>
</tbody>
</table>

Rate of growth of industry in the North East (%):

<table>
<thead>
<tr>
<th>State</th>
<th>2013–14</th>
<th>2014–15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arunachal Pradesh</td>
<td>9.6</td>
<td>9.5</td>
</tr>
<tr>
<td>Manipur</td>
<td>2.1</td>
<td>-</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>11.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Mizoram</td>
<td>3.1</td>
<td>-</td>
</tr>
<tr>
<td>Nagaland</td>
<td>7.7</td>
<td>7.8</td>
</tr>
<tr>
<td>Tripura</td>
<td>8.5</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: NITI Aayog
The global manufacturing competitiveness Index 2016 which aims to rank nations on manufacturing competitiveness and innovation, prepared by US Council of Competitiveness gave India a rank of 11 out of 40 countries. The country’s current focus is on increasing contribution from manufacturing, attracting more foreign investments and making strategic use of the factors of production it has a comparative advantage in, including low cost of labor and abundance of English-speaking workforce. The Make in India Initiative is also attracting international manufacturing and industrial units to set up manufacturing facility centers in the country.

Moreover, the introduction of a uniform taxation system (GST) is expected to have the following positive outcomes for the manufacturing sector:

► Reduced production costs: The cascading effect of the taxes faced by manufacturers on purchase of raw materials and supplies will be eliminated.

► Smoother supply of goods within the country: Reduced scrutiny at state border checkpoints and lighter compliance norms will lead to cost and time savings, improving supply efficiency by over 60%.

► Supply chain restructuring: Prior to GST, key logistics decisions such as warehousing and storage were made in order to optimize indirect tax costs, given the arbitrage between VAT rates in different states. GST will cause these decisions to be made keeping in mind business efficiency and locational advantage.

► Area-based exemptions: Area-based tax exemptions will be discontinued so that the credit chain along GST is not disturbed.

The major challenges to the growth of the sector are, however, infrastructure bottlenecks and legal and regulatory environment.

The following factors require more focus for attaining the envisaged objectives:

► Emphasizing on and giving impetus to infrastructure development: Faster mechanization and use of technology for mass-scale manufacturing production is essential for the sector to grow. Encouraging the PPP model in the development of road and rail networks, utilities, port etc. would provide the much needed push to growth.

► Promoting skill development and faster absorption of labor into the manufacturing sector: India’s strength is the existence of a strong and young labor pool or demographic dividend. The Government needs to design skill development and vocational courses that could help provide gainful employment especially for the poor, under-privileged and school dropouts.

► Capitalizing on the gaps left by China: China is India’s biggest competitor on the manufacturing index, and currently China is moving away from export-oriented growth toward a domestic-driven one. India can utilize this gap through export intensification.

► Augmenting investment in R&D will give India edge over its competitors.

GST has to a large extent addressed the prevailing regulatory issues. Other obstructive regulations and policies, besides bureaucratic obstacles should be looked into by individual states on priority based on their own manufacturing goals.

The above mentioned recommendation in essence, aim to address the immediate issues that India needs to focus on. India holds a strong advantage over many of its competing nations. It is expected that by 2020, more than 64% of India’s population will be in the working age population. Leveraging on the human capital potential of India can definitely steer it in the direction of exponential growth. Moreover, India’s increased investments and commitment to technology development and integration is expected to propel India into the league of global manufacturing hubs in the near future.
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