

Industrial Policy in North East India: Peripheral Realities in Post-Liberalization Period

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Being at the periphery of post-colonial India's industrial development, North East India (NEI) gained policy attention only during post-liberalization period. This paper explores the impact of the Industrial Policy in NEI, Data showed no remarkable achievement of industrial growth in the organized sector in the aftermath of such a policy. Thus, the region is in need to expand its industrial base, suitable to its topography and ecology. Given the intra-regional diversities and topographical vulnerability, the existing uniform Industrial Policy for NEI may not be able to meet the required demand. The paper therefore suggests a different policy perspective to address issues between Assam and rest of the states of NEI within a hill-plain binary.

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Introduction

The economy of North East India (NEI) in the post-colonial period was primarily identified with plantation and extraction sectors with well-developed activities in tea and oil in the plains of Assam, while across the hills and in many remote plain areas, the practicing traditional subsistence economies like shifting cultivation and indigenous handicraft industry thrived in isolation. Neither tea nor oil was part of the region's traditional economies. They were created in Assam by the colonial capitalists in the years 1837 and 1899 respectively for surplus extraction. Thus, a 'modern-traditional binary' (Sanyal, 2007) in industrial sector became predominant in NEI within a 'surplus-subsistence' frame. In the post-colonial period, the pattern of capital inflow for industrial activities in Assam in both oil and tea was from outside by the Indian big bourgeoisie (Misra, 1980, Goswami, 1981). Assam was the key supplier of resources for various 'core' industrial development of India, and was typically a 'peripheral' space of exportable surplus for India's 'core' sector, like hydrocarbon. Such 'siphoning capitalism' and its primitive accumulation had dis-

rupted the vast indigenous economies, and the home markets in the region lost their capacity to diversify along with post-colonial India's industrial development (Bagchi, 2010). No significant policy was imagined by the post-colonial Indian State to reverse such scenario of core-periphery with an industrial base in Assam. On the other hand, the traditional economies and industries across the hills and plains of NEI survived in isolation without any policy for market linkage.

In the post-liberalization period, with new knowledge on market and geography, NEI started to gain policy attention. Accordingly with the idea of industrial development and capital formation in NEI, a state financial institution called North Eastern Development Finance Corporation (NEDFi) was created in 1995 under the Companies Act 1956. NEDFi was the agent for financial capital towards medium, small, micro and even large enterprises in the region. This was subsequently followed by the first 'North East Industrial Policy' in 1997 to address the 'chronic industrial underdevelopment' in the region. The policy aimed to create industries in NEI by supporting private investors. This was further revised a decade later in 2007 as North Eastern Industrial and Investment Promotion Policy (NEIIP) for another ten years with renewed focus. This has been revised again in 2017 as North East Industrial Development Scheme. The series of these policies were primarily to ensure industrial development in NEI and restore the imbalance created in the past. Unfortunately, the existing scholarly literature on India's industrial development

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and its policy has paid little attention to NEI, which is perceived as inconsequential. Thus, the outcome of post-liberalized industrial policies in the region is also not in the dominant body of knowledge. But given the current development policy attention on NEI, it is paramount to understand the strength and weakness of region's industrial capacity, and the objective of the paper therefore is to fill this gap through an empirical research. It has quantified the impacts of industrial policies in all the states of NEI using extensive data sources such as latest Economic Census, National Accounts, Annual Survey of Industries, unincorporated non-agricultural sector survey of NSSO to cover both formal (registered) and informal (unregistered) industries in the region. Lastly the paper also explores some policy suggestion for sustainable industrial development in NEI.

'North East' in India's Manufacturing Industry

The post-colonial state planning model made a conscious effort to 'preserve' and 'protect' the traditional practices in NEI through constitutional arrangement of Sixth Schedule. Thus, NEI was not imagined as an industrial site, while the efforts and capital for post-colonial state were concentrated primarily in western segments having a his-

torical continuity since the inception of Bombay Plan in 1944. Industrial policies of 1948 and 1956 accordingly promoted various ‘core’ states and regions at the cost of resource-rich ‘peripheral’ regions like ‘North East’. This resulted in regional disparities, which over time even in liberalization period, became wider with the increasing role of private capital towards those regions which already attained industrial progress through state capital. Thus, with about 37 percent share, western segment dominated India’s industry, while its Eastern segment shared merely 3 percent, and North Eastern segment had only 1 percent share (Thomas, 2015). To address such regional disparities in industrial development and also to expand India’s industrial base, the state policy in the liberalization period became proactive in industrially backward regions including NEI. Thus, the first North East Industrial Policy was made in 1997 to promote the role and significance of private capital and enterprises in the region. State assistance up to Rs 15 crore was given in such geographi-

cally ‘isolated’ regions as ‘necessary costs’ towards developing industrial base. In the absence of region’s indigenous capital, infrastructure network and entrepreneurial skills, investment subsidy was offered up to the ceiling of Rs 30 lakhs to locate industries in NEI with tax exemption and transport subsidy to operate for next 10 years. To retain policy continuity, the ‘second edition’ of industrial policy was announced in 2007 as North East Industrial and Investment Promotion Policy (NEIIP) with much larger state support and ceiling up to Rs 1.5 crores; and its third edition has also been announced as North East Industrial Development Scheme 2017 with a financial outlay of Rs 3000 crores and with ceiling up to Rs 5 crores. To understand the impact of such series of policy initiatives, we have attempted to look at the decadal performance of industrial sector in the region. The estimated data in Table 1 shows that industrial sector in NEI shares about 24 percent of its total economy and construction but not the manufacturing sector is the major contributing area (Table 2).

Table 1 Sectoral Shares in NSDP: By States in North East India (2004-05 prices) (%)

States/sector 2004-05	Aruna- chal	Assam	Mani- pur	Megha- laya	Mizo- ram	Naga- land	Sikkim	Tripura	NER*
Agriculture	37.20	26.77	25.09	24.46	24.55	35.83	18.76	26.08	27.25
Industry	29.93	25.35	36.86	24.74	15.20	12.40	28.54	22.69	24.74
Services	32.85	47.89	38.05	50.80	60.26	51.77	52.70	51.23	48.01
2009-10									
Agriculture	28.65	21.67	26.71	18.83	22.21	28.89	9.57	25.23	24.03
Industry	27.43	19.49	34.48	27.75	17.57	15.49	52.70	23.61	23.67
Services	43.91	58.84	38.81	53.42	60.22	55.63	37.73	51.16	52.30
2014-15			**		**		**	**	
Agriculture	31.41	23.70	20.30	16.11	18.92	25.87	10.37	22.70	@
Industry	27.89	20.48	25.15	28.05	13.98	13.29	60.04	22.25	@
Services	40.69	55.82	54.56	55.85	67.10	60.83	29.59	55.05	@

Table 2 Sectoral Shares in NSDP: Industry: By States in North East India (2004-05 prices) (%)

2004-05	Aruna- chal	Assam	Mani- pur	Megha- laya	Mizo- ram	Naga- land	Sikkim	Tripura	NER*
Manufacturing	2.22	9.17	4.10	2.20	1.10	1.57	4.23	4.03	6.66
Construction	21.11	6.97	30.58	12.03	11.58	10.06	21.28	16.64	10.95
Industry	29.93	25.35	36.86	24.74	15.20	12.40	28.54	22.69	24.74
2009-10									
Manufacturing	2.33	4.77	4.58	5.53	0.88	2.15	31.08	2.33	6.19
Construction	18.66	11.01	26.69	15.13	14.68	12.28	11.18	18.33	12.34
Industry	27.43	19.49	34.48	27.75	17.57	15.49	52.70	23.61	23.67
2014-15			**		**		**	**	
Manufacturing	2.50	6.86	4.41	4.21	1.59	1.61	36.91	2.30	@
Construction	21.77	8.5	16.10	17.77	10.16	10.60	17.68	17.35	@
Industry	27.89	20.48	25.15	28.05	13.98	13.29	60.04	22.25	@

Table 3 Sectoral Shares in NSDP: Industry: Registered and Unregistered Manufacturing: By States in North East India (2004-05 prices) (%)

2004-05	Aruna- chal	Assam	Mani- pur	Megha- laya	Mizo- ram	Naga- land	Sikkim	Tripura	NER*
Manufacturing	2.22	9.17	4.10	2.20	1.10	1.57	4.23	4.03	6.66
Registered	0.0	6.82	0.10	1.35	0.24	0.31	2.23	2.73	4.57
Unregistered	2.22	2.34	4.00	0.85	0.86	1.26	2.00	1.30	2.09
2009-10									
Manufacturing	2.33	4.77	4.58	5.53	0.88	2.15	31.08	2.33	6.19
Registered	0.0	2.16	0.18	4.76	0.13	0.94	29.95	0.88	3.94
Unregistered	2.33	2.6	4.40	0.77	0.75	1.21	1.13	1.45	2.24
2014-15			**		**		**	**	
Manufacturing	2.50	6.86	4.41	4.21	1.59	1.61	36.91	2.30	@
Registered	0.0	4.21	0.54	3.61	0.12	0.48	36.06	0.82	@
Unregistered	2.50	2.66	3.87	0.60	1.47	1.12	0.85	1.47	@

* Absolute figures obtained by adding all the NSDP of eight states and then deriving the percentages.

** Data for Manipur, Mizoram, Sikkim and Tripura relate to 2013-14 since those for 2014-15 are not available at 2004-05 prices. @ Not estimated since data relates to two different years for the State. Source: Estimated from CSO data on NSDP

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opment, has not made any significant contribution towards industrial development in the region. Its share is about 6 percent of the total economy. Sikkim has contributed the largest share, without which the share remains around 2 percent in region's total economy. The overall manufacturing scenario in India has been discouraging in post-liberalized

period, sharing only about 16 percent of the total economy. But as per sixth Economic Census data, the sector still remains major source of employment with about 30 million workers, sharing about 23 percent of country's total workforce (table 5). But in NEI, manufacturing sector employs less than a million people (table 5), sharing only about 15 percent of total workforce of the region, and 2.81

percent of India's workforce in manufacturing sector. The decadal growth rate in manufacturing sector in NEI (table 4) is 5.15, with both its formal and informal sectors growing at about 6 percent. This shows that despite policy measures and State financial incentives, a yawning gap exists and NEI still remain unrepresentative in India's manufacturing sector.

Table 4 Average Annual Growth Rate# for 2004-05 to 2013-14* (%)

Sector	Arunachal	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	NER
Agriculture & Allied	4.50	2.95	3.23	3.49	5.71	4.14	8.13	7.32	3.79
Mining & quarrying	0.94	-3.21	0	1.71	10.9	6.99	25.43	7.10	-2.28
Manufacturing: All	7.24	-0.61	6.25	20.76	14.37	9.32	142.56	4.32	5.15
Manufacturing: Registered	0.00	-3.22	37.09	28.41	6.56	27.45	253.44	3.52	6.71
Manufacturing: Unregistered	7.24	6.47	5.08	4.98	17.52	6.72	4.57	10.56	6.73
Construction	7.28	10.59	-1.56	16.14	7.95	8.62	13.31	9.67	8.61
Electricity, gas and Water supply	0.10	2.76	15.57	11.05	8.99	13.58	34.76	22.28	8.39
All	5.47	2.20	1.07	10.58	8.08	8.72	32.18	8.75	5.19
Services	8.71	7.42	9.64	8.75	10.09	9.59	7.99	9.83	8.20
State domestic product	5.87	5.11	5.26	8.11	8.71	7.66	16.32	8.92	6.38
State Per Capita Income	3.45	3.77	2.98	5.48	5.99	5.67	14.92	7.64	6.74

Simple average of Annual Y-o-Y growth; Considered up to 2013-14 since 2014-15 data is not available for all States* Estimated from NSDP of States

Source: Compiled and estimated from CSO data on NSDP

To understand the level of industrial capital or workforce participation in the region, the Sixth Economic Census data is used to capture both formal and infor-

mal industries in terms of number, location, spread, and size of employment. The data shows that in 2013 (Table 5) there were about 3.46 lakhs total manufactur-

ing units in NEI, with which the region has increased its share in India's total manufacturing activities from sheer 1 percent in 2008 to 3.4 percent in 2013.

Table 5 All Established Units (organized and unorganized) and Their Total Workforce in Manufacturing Sector in NEI: 2013 (NOS)

States	Establishment			Total share in All India	Workers			Total share in All India (%)
	Rural	Urban	Total		Rural	Urban	Total	
Assam	155959	55210	211169	2.04	443812	149260	593072	1.95
Arunachal Pradesh	1420	1009	2429	0.02	5581	3463	9044	0.03
Manipur	45483	24145	69628	0.67	64922	36453	101375	0.33
Meghalaya	7212	2701	9913	0.10	26290	8283	34573	0.11
Mizoram	1784	3118	4902	0.05	2788	8861	11649	0.04
Nagaland	7773	2231	10004	0.10	19685	6664	26349	0.09
Sikkim	917	474	1391	0.01	6524	3234	9758	0.03
Tripura	24884	12163	37047	0.36	40094	25913	66007	0.22
NEI	245432	101051	346483	3.35	609696	242131	851827	2.81
All India	5442870	4886952	10329822	100.00	13642473	16714800	30357273	100.00
All enterprises covered in Economic census								
NEI (All)	1913811	880455	2794266		3662448	1878447	5540895	
All India (All)	34795754	23699605	58495359		67895421	63398447	131293868	

Share of manufacturing workers to all workers: NEI - 15.37%; All-India – 23.12%.
Source: Sixth Economic Census

About 70.8 percent of these industrial units are located in the rural areas of NEI. About 8.5 lakhs of NEI's labor force are absorbed in the existing manufacturing sector with 6.09 lakhs being in its rural manufacturing units. This is 4.5 percent share of India's labor force (Table 5). With significant manufacturing activity in the rural areas with handloom and handicraft, these are traditional in nature with low capital base. These activities are still predominant in NEI's 'need economy' which is outside the space of big capital. But with diverse and distinct style, weaving, and texture of various ethnic communities in the region, this informal industry continues to have large potential to create surplus. This in-

formal industrial sector, which was aggressively destroyed and marginalized by the colonial capitalists, has regained space with policy promotion in 1970s. With the shift in policy focus towards small scale, cottage and village industry, a new industrial policy was created in 1977, and attempts were made to revive the region's handloom and handicraft industry also. Thus North Eastern Handicrafts and Handlooms Development Corporation Limited (NEHHDC) was created in the same year to revive the region's traditional manufacturing industry through state financial capital and by connecting it to larger market of India through credit, incentive and infrastructure.

Table 6 All Handicraft/Handloom Manufacturing Units & Their Total Workers in NEI: 2013

States	Handloom/handicraft units(NOS)			Workers (NOS)		
	Rural	urban	Combined	Rural	Urban	Combined
Assam	70147	20976	91123 (4.8)	138882	50989	189871 (4.52)
Arunachal Pradesh	103	102	205 (0.01)	294	353	647 (0.02)
Manipur	38179	18825	57004 (3.04)	49354	25767	75121(1.79)
Meghalaya	3149	657	3806 (0.20)	6240	1507	7747 (0.18)
Mizoram	635	1731	2366 (0.13)	1122	4729	5851 (0.14)
Nagaland	4176	637	4813 (0.26)	12328	1261	13589 (0.32)
Sikkim	595	175	770 (0.04)	836	735	1571 (0.04)
Tripura	6604	4321	10925 (0.58)	10206	7994	18200 (0.43)
NEI	123588	47424	171012 (9.13)	219262	93335	312597 (7.43)
All India	1117261	756363	1873624	2214796	1990010	4204806
Share	11.1	6.3	9.1	9.9	4.7	7.4

Source: Sixth Economic census data. Figures in the parentheses are state-wise shares in All India (%)

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of India's 18 lakhs units (Table 6). NEI engages about 3.1 lakhs workforce in this sector sharing 7.4 percent of India's 42 lakhs. This is dubbed as rural non-agricultural activity and is a part of region's traditional subsistence economy within households and village communities, and in the absence of large market, it caters primarily to local needs and economy.

Table 7 Number & Growth of Registered Manufacturing Enterprises in NEI: 1999-2004 to 2014-15

States	Number				% Growth		
	1999-2000	2004-05	2009-10	2014-15	99-00 To04-05	04-05 to09-10	2009-10 to14-15
All India	131558	136353	158877	230435	3.6	16.5	45.0
Assam	1648	1710	2247	3717	3.8	31.4	65.4
Manipur	61	55	85	160	-9.8	54.5	88.2
Meghalaya	27	58	100	109	114.8	72.4	9.0
Nagaland	147	113	90	197	-23.1	-20.4	118.9
Sikkim	-	-	46	67			45.7

Contrast to this, NEI's large scale formal manufacturing sector always has been perceived as insignificant with low capital base and lack of both en-

trepreneurial and labor skills. But the data of Annual Survey of Industries interestingly reveals encouraging scenario in NEI. Over the period of almost

Table 8 Invested Capital and Shares of NEI in Registered Manufacturing Sector in India: 1999-00 to 2014-15 (Rs crores)

States	1999-2000	2004-05	2009-10	2014-15
All India	566634	759418	1933054	3513964
Assam	3855	10226	14668	25829
Manipur	7	13	70	179
Meghalaya	32	217	1867	4312
Nagaland	53	65	335	310
Sikkim	0	0	1289	2725
Tripura	51	149	836	499
NEI	3997	10670	19065	33854
Share of NEI in all-India (%)	0.7	1.4	1	0.7

Source: Estimated from ASI data. The data for Arunachal Pradesh and Mizoram are not available

one and half decade (Table 7) between 1999-00 and 2014-15, number of registered factories in NEI has become more than double from 2089 to 4798 units following a similar trend of India, where the number of units has increased from 1.3 lakh to 2.3 lakh over this same period. The growth rates of these formal enterprises in NEI have been 6, 35 and 61 percent respectively during 1999-00 to 2004-05, 2004-05 to 2009-10 and 2009-10 to 2014-15, and are higher than national growth figures with 4, 17 and 45 percent respectively. But in terms

of absolute number, formal industry represents only 2 percent of India's share till 2014-15. This shows that despite state policy incentives, the region is yet not a desired destination for big industrial houses, which may be due to issues related to infrastructure and market. The invested capital in NEI has

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Table 9 Number and Growth Rate of Workers in Registered Manufacturing Sector in NEI: 1999-00 to 2014-15

States	Number of workers				% Growth		
	1999-00	2004-05	2009-10	2014-15	99-00 to 04-05	04-05 to 09-10	09-10 to 14-15
All India	6280659	6599298	9157802	10755288	5.1	38.8	17.4
Assam	95592	101265	125759	163348	5.9	24.2	29.9
Manipur	847	1607	2950	6568	89.7	83.6	122.6
Nagaland	2604	2332	2676	4843	-10.4	14.8	81.0
Sikkim	-	-	4854	11100	-	-	128.7
Tripura	6800	13818	25756	26256	103.2	86.4	1.9
Meghalaya	742	2405	4984	11870	224.1	107.2	138.2
NER	106585	121427	166979	223985	13.9	37.5	34.1
Share of NER	1.7	1.8	1.8	1.9	-	-	-

Source: Estimated from ASI data. The data for Arunachal Pradesh and Mizoram is not available

increased from merely Rs 3997 crores in 1999-00 to Rs 33854 crores in 2014-15 sharing only about 0.7 percent of India's total investment (Table 8). Total number of workers employed in large scale manufacturing units in NEI has increased merely from 1.06 lakhs to

2.24 lakhs during 1999-00 to 2014-15 (Table 9), with marginal increase in share in all-India from 1.7 percent to 1.9 percent. The wage structure of these manufacturing units in NEI is also almost half of the national average (Table 10).

Table 10 Annual Wages per Worker in Registered Manufacturing Units in NEI: 1999-00 to 2014-15 (Rs)

States	1999-00	2004-05	2009-10	2014-15
All India	41881	50968	75281	139763
Assam	23518	33203	49332	87934
Meghalaya	23315	54096	72652	150185
Manipur	12515	18855	35356	73355
Nagaland	17089	20111	19880	92305
Sikkim*	-	-	19880	144262
Tripura	17426	15509	22267	33118
NER	22883	31162	45413	85673

Source: Estimated from ASI data. The data for Arunachal Pradesh and Mizoram is not available

* ASI data available from 2009-10 only.

Intra-Regional Realities: Assam & the Rest

NEI's overall manufacturing industry may not be reflective enough to understand the prevailing degree of disparities amongst its eight states. The state-level performance shows a sharp intra-regional disparity, and indicates that the 'umbrella approach' in industrial policy for NEI may not help to reduce existing disparity. With historical and geographical reality, Assam has been a major state since colonial times for economic activity. This is mostly due to its plain topography, better connectivity and larger resource base. Even in post-colonial pe-

riod, with many state bifurcations under North Eastern Area Reorganization Act 1971, Assam continued to retain largest share in region's economy including industrial units. It has highest concentration of 2.1 lakhs manufacturing units out of a total 3.46 lakhs (Table 5) in the region with 60.6 percent share. They employ highest number of workers with 5.9 lakhs out of 8.5 lakh people in NEI's manufacturing industry. In the formal manufacturing sector, Assam monopolizes with maximum workforce and industrial capital with 70 (Table 5) and 76 percent shares respectively in NEI (Table 8). The presence of big factories employing sizeable number of workers has the scaling effect on wage rates. Same is the effect of existence of public sector units since they are statutorily bound to provide decent wages as is the case in oil industry in Assam, which

The 'umbrella approach' in industrial policy for NEI may not help to reduce existing disparity.

This shows the dominance and centrality of Assam in industrial sector and the post-reforms industrial policy approach has not helped to change this dynamics.

unfortunately is absent in the smaller states of the region. Even in the informal sector, Assam leads both in size and workforce, followed by Manipur and Tripura. This shows the dominance and centrality of Assam in industrial sector all in terms of size, employability and capital, and the post-reforms industrial policy approach has not helped to change this dynamics. Rather uniformity in policy approach as a response to region's issues of 'underdevelopment' is not appropriate enough to make NEI in-

dustrially developed with its diverse endowments. It has failed to address state, location and skill-specific aspects and diversities of NEI to make it an industrial friendly region. In this context, Assam needs a stand-alone policy attention.

Concluding Observations

Empirical analysis of last decade shows that despite policy incentives, NEI has not performed well in large scale industries, while it has made substantive progress in small and medium scale industries. But as these industries also are need based without having enough accessibility to larger market, it is unable to meet the requirements of rising demand for livelihood, opportunities and employment. Also located in a

Table 11 Number of Manufacturing Enterprises with 10 or More Workers in the States of NEI

Size-class of workers	Number of manufacturing enterprises							
	States							
	Arunachal	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura
10-14	19	1556	49	76	32	39	6	61
15-19	10	360	28	64	9	15	4	28
20-24	9	228	12	20	13	7	10	20
25-29	7	143	9	8	10	11	3	9
30-99	30	753	30	52	8	30	19	43
100-199	1	206	5	12	1	2	6	6
200-499	1	110	1	2	0	2	6	3
>=500	0	64	0	4	0	0	6	2
Total	77	3420	134	238	73	106	60	172
>=500 workers		Mostly processing of tea (60 of the 64)		Cement Companies (all 4)		Manufacture of pharmaceuticals (all 6)		Processing of Tea Leaf (1) and Jute Mill (1)

Source: Sixth Economic Census

highly seismic and ecologically sensitive zone, expansion of conventional large scale manufacturing units in several highlands of NEI always remains vulnerable, while some of its plain areas can be manufacturing hubs to engage its rising workforce. The North East Industrial Development Scheme, 2017 therefore has rightly emphasized on a 'eco-friendly sustainable sector' and aims to incentivize MSME in the region.

The Economic Census data in 2013 classified manufacturing industry with number of workforce engaged (10 to 500+ workers in Table 11), and shows that only Assam has about 64 manufacturing units with more than 500 workers and 3420 units with 10+ workers. Sixty out of the 64 largest units by worker size are in tea processing sector, which has been state's strength since colonial times. All other states together have only 12 units. This clearly indicates that industrial progress may not be possible uniformly in NEI, and post-liberalization policies hardly could make any structural change in this sector in the region. The intra-regional disparity is rather rising as smaller hilly states are unable to set up many large industrial units. There is also little doubt that merely setting up of few

Table 12 Types of unorganized manufacturing activities in NEI: 2010

Activity Category	States								Annual GVAPW in India (Rs.) as a whole (arranged in order of highest value to lowest)
	Arunachal	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	
Manufacture of motor vehicles, trailers and semi-trailers	×	“	×	“	×	“	×	“	120360
Manufacture of machinery and equipment n.e.c.	“	×	×	×	×	×	×	“	109898
Manufacture of other transport equipment	×	“	×	×	×	×	×	×	98756
Manufacture of computer, electronic and optical products	×	“	×	×	×	×	×	×	95666
Manufacture of pharmaceuticals, medicinal chemical and botanical products	×	“	×	“	×	×	×	“	93489

industrial units, like processing of non-replenishable natural resources, is not only incapable of generating industrial development but is also harmful to the ecology as it sucks the region dry of such resources. With such intra-regional diversity, smaller and hilly states of NEI necessarily need to have a different policy trajectory of manufacturing activities having potential in micro, small and medium enterprises with various renewable resources like bamboo, cane, horticulture etc.

Given the gradual increase in demand for traditional activities of NEI, the paper has attempted to identify some such potential manufacturing units from NSSO data which can gain specific policy attention to expand and integrate with larger market. NEI's informal sector is dominated by 25 broad manufacturing activities (table 12). The last column of the table 12 estimates the annual gross value added per worker (GVAPW) for each of this activity category in India, and other columns show the positive and insignificant activities of all eight NEI states in these activity categories. The absolute values for the states were not brought into further analysis since there seems to be more than normal fluctuations in the estimated figures. Nevertheless, the positive GVAPW (indicated by “”) here is an indicator of the engagement of entrepreneurs in the particular activity while nil GVAPW (indicated by ‘×’) is interpreted as insignificant scale of operation in that activity. This list gives a clear and preliminary idea to identify the potential units for strengthening manufacturing sector in NEI. It can be seen

that the annual GVAPW for some manufacturing activities are non-existent in the NEI states except Assam. The activities like manufacture of motor vehicles, trailers and semi-trailers, which are most remunerative (Annual GVAPW of Rs. 120360 at all-India level), are present in four states of NEI only. The activities that are of insignificant scale include the (i) transport equipment, machinery, manufacture of computer, electronic and optical products; (ii) manufacture of coke and refined petroleum products, (iii) cotton ginning, cleaning and bailing. The activities listed in (i) are the ones which fetch high average remuneration at the all-India level. Unfortunately, these are mostly absent in states except Assam. Under the category (ii), only Assam and Tripura have units. Presumably, these two states have large hydrocarbon resources and thus have presence of these units. The cotton ginning, cleaning and bailing activity is a natural non-starter in the states of NEI. The activities which are being pursued by entrepreneurs in all the NEI states are manufacturing of (i) fabricated metal products except machinery and equipment; furniture; food products; wearing apparel; textiles; wood and products of wood and cork except furniture; beverages (except in Arunachal). However, if average GVAPW at all-India level is an indicator, then some of these are not highly remunerative at small scale. As regards diversification of entrepreneurial activities in informal manufacturing sector, only Assam, Tripura and to some extent, Meghalaya promise hopeful scenario. Out of all 25 activities, Assam has positive activities in 22 units followed by Tripura in 20 units. Rest of

the states has positive activities in about 50 percent of these manufacturing units. The states are still rooted in the traditional small entrepreneurial pursuits such as handlooms, handicrafts, manufacture of food products, etc. Small and medium scale industries therefore needs State support for modernization, technical expertise and investments. Manufacturing in areas like transport equipment, electronic and optical products, pharmaceuticals, medicinal, chemical and botanical products, electrical equipment have symbolic presence in smaller states of the region. This list of activities can be curative for various start-up ventures for the youths of the region and can receive State support for expansion. This empirical understanding of the potentials of some such manufacturing units in NEI also can help the policy circle towards creating markets even beyond the borders.

Given India's neoliberal growth agenda, industrial development is imperative for NEI, both for its own economic security and for larger market integration. NEI is currently in focus under India's Act East Policy, and is expected to change its narrative from a 'backward' region towards an 'economic hub' and 'connecting gateway' through connectivity infrastructure to integrate India's

economy with its Eastern and Southeastern neighbouring nations. In this regard, a roadmap for sustainable manufacturing industry and its market for NEI are important. The identified manufacturing units of this paper can therefore be given more policy support to make NEI a sustainable manufacture-friendly region, while fulfilling India's larger agenda of economic integration with neighbouring nations.

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