



## **IMPACT OF AREA BASED TAX INCENTIVE POLICY ON INDUSTRIAL DEVELOPMENT OF NORTH EAST REGION OF INDIA**

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### **Abstract**

North East Region of India (NER) consists of eight states and it comprises of 262 thousand sq km area and 45.6 million population, as per 2011 census records. Nearly two decades ago, Government of India announced industrial policy consisting of area based tax incentives to boost industrial development in these states which resulted in tax expenditure of Rs 1.48 trillion in 12 years (1.13% of tax revenue). The purpose of this study, is to analyse impact of the policy on industrial development of NER and the eight states and offer alternative approach. The data published in Annual Survey of Industries by Ministry of Statistics and Programme Implementation under the Government of India on seven selected performance indicators for 22 years from Financial Year 1998-99 to Financial Year 2019-20 has been analysed. We found that the tax incentive policy contributed towards accelerated industrial development, however, the benefits were not spatially widespread but were monopolised by the states which had industrial clusters. Targeted policy of rapid infrastructure development and establishment of heavy industries backed by production linked incentives may be a better way forward for industrial development of NER.

**Keywords:** Annual survey of industries; area based tax incentives; industrial development; North East Region; production linked incentives; tax policy.

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## **1. Introduction**

The North East Region of India (NER) consists of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura comprising of 262 thousand sq km area and 45.6 million population as per 2011 census records. In 1997, the Government of India (GoI) announced industrial policy for the seven states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura, and in 2002, for Sikkim. The rationale behind the policy was that it will attract industrial units to these states and thereby give impetus to investment and employment. The fiscal incentives granted to new manufacturing units and old manufacturing units undertaking substantial expansion were (a) 100% exemption from income tax and excise duty, (b) transport subsidy for 10 years (c) capital investment subsidy of 15% subject to a ceiling of Rs. 3 million, (d) interest subsidy of 3% on working capital loan for 10 years, and (e) 100% subsidy on insurance premium on capital investment for 10 years. The industrial policy of 2002 was subsumed and rechristened as North East Industrial and Investment Promotion Policy (NEIIPP) 2007, and extended upto 31.03.2017. After expiry of NEIIPP, GoI approved North East Industrial Development Scheme (NEIDS) upto March 31, 2022.

The main plank of the policy was 100% exemption from income tax and excise duty. Industrial units set up during the period from 1<sup>st</sup> April, 1998 to March 31, 2022, were eligible for these exemptions for a period of 10 years from the year they commenced production. During the period of twelve financial years from 2004-05 to 2017-18<sup>i</sup>, the tax revenue of GoI was Rs. 131.4 trillion and the tax incentives claimed by the industrial units set up in NER under the policy were of Rs. 1.48 trillion which was 1.13% of the tax revenue. For the same period, the quantum of non-tax incentives was of Rs 16.2 billion, which were miniscule as compared to the quantum of tax incentives (Kolhe, 2017). It was expected that these incentives will motivate entrepreneurs to set up industrial units in NER in large numbers leading to significant rise in investment and employment. The purpose of this study is to examine the impact of the area based tax incentive policy on industrial development of NER and the eight states and also to assess whether the impact is spatially uniform. There were reports that some of the companies have resorted to profit shifting to the units in the NER from the units outside the region. For this purpose, profitability of the units in the NER has been studied. The study attempts to find whether a uniform area based tax incentive policy for the entire NER was the best option for the policy makers to attract manufacturing units to the states in the region.

## **2. Methods**

The seven key performance indicators observed are: (a) number of factories, (b) fixed capital<sup>ii</sup>, (c) depreciation<sup>iii</sup> (d) number of persons engaged, (e) total emoluments, (f) net income<sup>iv</sup> and (g) profit<sup>v</sup>. Data on these indicators is captured in Annual Survey of Industries (ASI) being conducted by Ministry of Statistics and Programme Implementation under GoI. The secondary data on these indicators was collected for 22 years from Financial Year 1998-99 to Financial Year 2019-20 and Compounded Annual Growth Rate (CAGR) was computed at three levels: (a) National level (all India) (b) Regional level (NER) and (c) State level for the states in NER. Financial year 1998-99 is the first year in which the policy came in to operation and financial year 2019-20 is the latest year for which ASI data has been published. For 5 states: Assam, Manipur, Meghalaya, Nagaland and Tripura, the data is available for all the 22 years. However, for Arunachal Pradesh, the data is available only for 6 years from 2014-15 to 2019-20 and for Sikkim it is available only for 11 years from 2009-10 to 2019-20. For Mizoram, ASI collected the data for the first time for financial year 2019-20 and therefore this state is excluded from the study. CAGR at national level was considered as comparison parameter and was subtracted from CAGR of NER and the eight states. The differential CAGR (DCAGR) gave the impact value of the policy for NER and the eight states. Since for Arunachal Pradesh and Sikkim, data is available only for 6 years and 11 years respectively, differential CAGR for these states is calculated by using national CAGR of 6 years and 11 years respectively. Further, the contribution of eight states in the composition of each of the seven indicators during the period of 22 years has been studied at 5 time points (a) 1998-99 (b) 2004-05 (c) 2009-10 (d) 2014-15 and (e) 2019-20 to analyse temporal shift. For Financial Year 2018-19, ASI published manufacturing unit level data for all the states and union territories in India, giving name and address of the unit, its sector and number of employees. We have analysed dominant sectors in each of the states in NER. Structure of manufacturing sector was studied by using the sectoral data.

## **3. Results**

In Table 1 below, the data for seven selected performance indicators has been captured and CAGR (compounded annual growth rate) and DCAGR (difference between CAGR of NER/state and national CAGR) is calculated. The starting year for India, NER, Assam, Manipur, Meghalaya, Nagaland and Tripura is FY 1998-99,

for Sikkim it is FY 2009-10 and for Arunachal Pradesh it is FY 2014-15. The ending year for all the geographies is FY 2019-20. The data for other years within the starting year and ending year is also available, however, for the purpose of brevity; it is not displayed in Table 1. In Table 2, changes in contribution of states in selected indicators over 22 years split in five time points is computed.

**Number of factories:** At the national level, number of factories has increased from 131706 to 246504 at CAGR of 2.89%. In the corresponding period, in NER the factories have increased from 1865 to 6820 at CAGR of 6.07%. The differential CAGR is 3.18%. This suggests that the tax incentive policy contributed towards accelerated industrialisation of NER. However, the distribution of new factories is not uniform. The calculation of CAGR in Table 1, shows that in Arunachal Pradesh (-1.11%), there is contraction in growth in factories during the operation of the policy. The growth in factories in Nagaland is below the national average whereas in Manipur, Sikkim and Tripura is above the national CAGR but below the NER CAGR and in Assam it is equal to the NER CAGR. In Meghalaya (8.74%), the growth in factories is the highest. During the period of 22 years, Assam continued to maintain strong lead over other states by holding nearly 76% of factories of the region followed by Tripura at nearly 10%. Manipur, Meghalaya and Sikkim's share in factories has almost remained constant at 3%, 2% and 1%. There is significant decrease in share of Nagaland from 7.8% to 2.8%.

**Investment (performance indicators: Fixed Capital and Depreciation):** In both of these two selected indicators, national CAGR is nearly 11% as against NER CAGR of 14%. It appears that the rise in factories has translated in to rise in investment in the North East. However, at the individual state level, there is significant divergence. The calculation of CAGR in Table 1, shows that in Arunachal Pradesh there is flight of capital. Nagaland and Tripura (with both indicators taken together) have grown in line with the national figures. The investment in Assam is slightly above the national average, whereas Manipur, Meghalaya and Sikkim have seen significant increase in investment over the national average. It is observed from Table 3 (average of the two indicators) that Assam's share in investment has significantly reduced from 94% to 68% over the 22 years, and the gainers are Meghalaya (from 1% to 10%) and Sikkim from (7% to 18%). The shares of Arunachal Pradesh, Manipur, Nagaland and Sikkim have either remained stagnant or marginally decreased.

**Employment (performance indicators: Number of total persons engaged and Total emoluments):** An important observation here is that at national level, NER level and state level the CAGR of persons employed is significantly lower (almost one-third) as compared to CAGR of emoluments paid to the employees. In these two selected indicators, the CAGR at the national level is 3.68% and 11.52% as against CAGR of NER of 4.64% and 13.16%, which is marginally higher. It appears that the rise in factories has given rise to employment in NER. However, at the individual state level, there is significant divergence. Table 1, shows that in Arunachal Pradesh (-8.81% and -10.72%) there is contraction in manufacturing jobs and emoluments during the operation of the policy. In Nagaland the employment is below the national average, whereas in Assam and Tripura, it is almost in line with national CAGR. Manipur, Meghalaya and Sikkim have shown significant rise in employment over the national level. As observed from Table 3, share of Assam in manufacturing jobs has significantly reduced from 90% to 77%, whereas, the major gainers are Meghalaya (from 0.6% to 3.8%) and Sikkim (from 3.3% to 6.8%). Arunachal Pradesh, Manipur, Nagaland and Sikkim have shown insignificant deviations. Similarly, share of Assam and Nagaland in emoluments paid has significantly reduced from 93% to 70%, whereas, the major gainers are Meghalaya (from 0.7% to 7.2%) and Sikkim (from 12.5% to 17.1%). Arunachal Pradesh, Manipur, Nagaland and Sikkim have shown insignificant deviations.

**Profitability of companies (performance indicators: Net Income and Profit):** In both of these two selected indicators, the CAGR at the national level is 11% as against CAGR of nearly 14% in NER. It appears that the new factories have been profitably running their operations in NER. However, at the individual state level, there is significant divergence. Table 1, shows that in Arunachal Pradesh (-27% and -30%) there is contraction in net income as well as profit during the operation of the policy. Profitability of manufacturing units in Nagaland is below the national average whereas in Assam and Tripura it is in line with the national CAGR. Manipur (18%), Meghalaya (26%) and Sikkim (17%) have seen significant increase in profitability. As observed from Table 3 (average of the two indicators), share of Assam in profitability has significantly reduced from 98% to 55%, whereas, the major gainers were Meghalaya (from 0.3% to 3.5%) and Sikkim (from 25% to 40%). Arunachal Pradesh, Manipur, Nagaland and Tripura have shown insignificant deviation.

Table1: CAGR and DCAGR(in %) of Selected Performance Indicators (all values in Rs. million unless

mentioned)																				
Sele cted indi cato rs	All India							Northeast				Arunachal Pradesh				Assam				
	19 98 - 99	20 09 - 10	20 14 - 15	20 19 - 20	C A G R 22	C A G R 11	C A G R 6	19 98 - 99	20 19 - 20	C A G R	D C A G R	20 14 - 15	20 19 - 20	C A G R	D C A G R	19 98 - 99	20 19 - 20	C A G R	D C A G R	
Fact orie s (no. )	13 17 06	15 88 77	23 04 35	24 65 04	2. 89	4. 07	1. 13	18 65	68 20	6. 07	3. 18	12 4	11 6	- 1. 11	- 2. 24	14 24	51 96	6. 06	3. 17	
Fixe d Cap ital	39 11 51 5	13 52 18 37	24 74 45 46	36 41 35 17	10 .6 7	9. 42	6. 65	24 64 0	43 81 60	13 .9 8	3. 30	19 18	16 10	- 2. 87	- 9. 52	22 67 2	31 85 21	12 .7 6	2. 09	
Dep reci atio n	28 26 59	10 50 68 7.2	18 95 40 8	27 30 97 4	10 .8 6	9. 07	6. 28	20 41	36 80 4	14 .0 5	3. 19	22 1	22 4	0. 23	- 6. 04	19 74	23 45 1	11 .9 1	1. 05	
Tot al Pers ons Eng age d (no. )	75 00 00 0	11 79 20 55	13 88 13 86	16 62 42 91	3. 68	3. 17	3. 05	12 53 75	33 98 19	4. 64	0. 95	36 84	25 81	- 5. 76	- 8. 81	11 25 46	26 31 06	3. 94	0. 25	
Tot al Em olu men ts	44 62 59	14 70 06 9.6	30 74 13 1	49 17 29 0	11 .5 2	11 .6 0	8. 14	35 55	53 98 0	13 .1 6	1. 64	36 5	31 2	- 2. 58	- 10 .7 2	33 13	38 02 8	11 .7 3	0. 21	
Net Inco me	10 16 77 4	50 67 91 0	81 22 81 2	10 22 43 48	11 .0 6	6. 59	3. 91	14 13 0	25 17 63	13 .9 9	2. 93	33 28	68 5	- 23 .1 6	- 27 .0 7	13 78 9	14 22 59	11 .1 9	0. 13	
Prof its	47 30 62	33 29 30 6	46 02 83 0	46 94 72 7	11	3. 17	0. 33	99 78	19 06 10	14 .3 5	3. 35	29 41	35 6	- 29 .6 8	- 30 .0 1	98 95	98 45 3	11 .0 1	0. 01	
Sele cted indi cato rs	Manipur				Meghalaya				Nagaland				Sikkim				Tripura			
	19 98 - 99	20 19 - 20	C A G R	D C A G R	19 98 - 99	20 19 - 20	C A G R	D C A G R	19 98 - 99	20 19 - 20	C A G R	D C A G R	20 09 - 10	20 19 - 20	C A G R	D C A G R	19 98 - 99	20 19 - 20	C A G R	D C A G R
Fact orie s (no. )	65	20 4	5. 34	2. 45	25	15 8	8. 74	5. 85	14 5	19 0	1. 24	- 1. 65	46	84	5. 63	1. 55	20 6	65 7	5. 41	2. 52
Fixe d	76	14 55	14 .3	3. 69	18 8	35 82	26 .9	16 .2	20 8	17 98	10 .3	- 0.	90 83	73 41	20 .9	11 .5	14 96	49 99	5. 64	- 5.

Cap ital			6			2	5	8			1	36		1	2					04
Dep reci atio n	6	17 8	16 .3 2	5. 46	16	44 44	29 .1 8	18 .3 2	22	22 4	11 .2 3	0. 37	68 7	76 66	24 .5 2	15 .4 5	24	55 9	15 .4 2	4. 56
Tot al Pers ons Eng age d (no. )	12 23	68 98	8. 18	4. 50	79 7	12 90 4	13 .4 9	9. 81	36 04	53 61	1. 82	- 1. 86	64 84	23 03 9	12 .2 2	9. 04	72 05	24 26 6	5. 67	1. 99
Tot al Em olu men ts	24	54 5	15 .2 9	3. 77	25	38 71	25 .6 7	14 .1 4	61	37 7	8. 61	- 2. 91	18 75	92 06	15 .5 6	3. 96	13 1	14 96	11 .7 1	0. 19
Net Inco me	20	78 9	18 .2 1	7. 15	62	10 18 3	26 .1 2	15 .0 6	31	10 54	17 .3 5	6. 29	16 59 3	93 96 8	17 .0 7	10 .4 9	22 9	25 75	11 .6 4	0. 58
Prof its	-4	22 7	18 .7 2	7. 72	35	60 19	26 .4 3	15 .4 3	- 34	65 9	6. 57	- 4. 42	14 59 2	83 85 3	17 .2 3	14 .0 6	86	94 2	11 .4 9	0. 50

Source: Calculated using data from Annual Survey of Industries for FY 2019-20

Table 2: Changes in contribution of states in selected indicators over 22 years at five time points									
Contribution of states in selected performance indicators in 1998-99 (in %)									
Selected indicators	Northeast	Assam	Manipur	Meghalaya	Nagaland	Tripura			
Number of Factories	100.0	76.4	3.5	1.3	7.8	11.0			
Fixed Capital	100.0	92.0	0.3	0.8	0.8	6.1			
Depreciation	100.0	96.7	0.3	0.8	1.1	1.2			
Total Person Engaged	100.0	89.8	1.0	0.6	2.9	5.7			
Total Emoluments	100.0	93.2	0.7	0.7	1.7	3.7			
Net Income	100.0	97.6	0.1	0.4	0.2	1.6			
Profits	100.0	99.2	0.0	0.3	-0.3	0.9			
Contribution of states in selected performance indicators in 2004-05 (in %)									
Selected indicators	Northeast	Assam	Manipur	Meghalaya	Nagaland	Tripura			
Number of Factories	100.0	77.34	2.49	2.62	5.11	12.44			
Fixed Capital	100.0	96.65	0.12	2.02	0.38	0.83			
Depreciation	100.0	95.13	0.22	2.99	0.36	1.29			

Total Person Engaged	100.0	83.82	1.29	2.13	1.98	10.79			
Total Emoluments	100.0	90.04	0.64	3.62	1.10	4.60			
Net Income	100.0	91.31	0.13	2.20	0.45	5.91			
Profits	100.0	91.38	0.03	1.94	0.31	6.35			
<b>Contribution of states in selected performance indicators in 2009-10 (in %)</b>									
Selected indicators	Northeast	Assam	Manipur	Meghalaya	Nagaland	Tripura	Sikkim		
Number of Factories	100.0	75.5	2.9	3.4	3.0	13.7	1.5		
Fixed Capital	100.0	74.6	0.3	11.4	1.8	5.1	6.9		
Depreciation	100.0	79.5	0.4	9.0	0.1	3.3	7.7		
Total Person Engaged	100.0	75.8	1.8	3.2	1.5	14.5	3.3		
Total Emoluments	100.0	76.4	0.9	4.4	0.5	5.4	12.5		
Net Income	100.0	65.4	0.2	6.2	1.9	2.8	23.5		
Profits	100.0	59.8	-0.1	7.2	2.5	2.1	28.5		
<b>Contribution of states in selected performance indicators in 2014-15 (in %)</b>									
Selected indicators	Northeast	Assam	Manipur	Meghalaya	Nagaland	Tripura	Sikkim	Arunachal Pradesh	
Number of Factories	100.0	75.5	3.3	2.2	4.0	11.1	1.4	2.5	
Fixed Capital	100.0	72.6	0.5	15.7	0.9	1.5	7.9	0.9	
Depreciation	100.0	73.5	0.5	17.1	0.3	1.5	6.1	1.0	
Total Person Engaged	100.0	72.6	2.8	5.3	2.0	10.7	5.1	1.4	
Total Emoluments	100.0	73.0	1.5	7.5	1.0	3.7	12.1	1.2	
Net Income	100.0	57.1	0.5	1.6	0.9	3.4	33.9	2.6	
Profits	100.0	50.1	0.1	-0.5	0.9	3.4	42.9	3.2	
<b>Contribution of states in selected performance indicators in 2019-20 (in %)</b>									
Selected indicators	Northeast	Assam	Manipur	Meghalaya	Nagaland	Tripura	Sikkim	Arunachal Pradesh	Mizoram
Number of Factories	100.0	76.2	3.0	2.3	2.8	9.6	1.2	1.7	3.2
Fixed Capital	100.0	72.7	0.3	8.2	0.4	1.1	16.8	0.4	0.1
Depreciation	100.0	63.7	0.5	12.1	0.6	1.5	20.8	0.6	0.2
Total Person Engaged	100.0	77.4	2.0	3.8	1.6	7.1	6.8	0.8	0.5

Total Emoluments	100.0	70.4	1.0	7.2	0.7	2.8	17.1	0.6	0.3
Net Income	100.0	56.5	0.3	4.0	0.4	1.0	37.3	0.3	0.1
Profits	100.0	51.7	0.1	3.2	0.3	0.5	44.0	0.2	0.1

Source: Calculated using data from Annual Survey of Industries for FY 2019-20

Note: For Arunachal Pradesh, the data is available for 6 years from 2014-15 to 2019-20 and for Sikkim it is available for 11 years from 2009-10 to 2019-20.

Sectoral analysis of these manufacturing units has been done and top sectors in the states of NER have been identified. The details are presented in Table 3 below. Most of the manufacturing units in NER produce goods meant for local consumption such as in the food and building material (mostly bricks

and stone chips required for construction) sector and these two sectors are prominent among all the states except Arunachal Pradesh. There are only a few notable exceptions where there is surplus production and it is exported out of the state such as, tea from Assam, cement from Meghalaya and pharmaceutical products from Sikkim.

Table3: Sectoral Analysis of Manufacturing Units in Northeastern States of India (values outside the bracket are in number and inside the bracket are in percentage of the total)							
<b>Arunachal Pradesh</b>	Tea	Wood products	Coke oven products	Basic iron and steel		Others	Total
Factories	20(17)	49(41)	17(14)	7(6)		26(22)	119(100)
Employees	872(26)	1072(32)	237(7)	845(25)		370(10)	3396(100)
<b>Assam</b>	Food	Tea	Plastic products	Building material except cement	Cement	Others	Total
Factories	552(11)	880(17)	298(6)	1881(37)	65(1)	1424(28)	5100(100)
Employees	12926(5)	72939(29)	6732(3)	89634(36)	4325(2)	65398(25)	251954(100)
<b>Manipur</b>	Food	Building material except cement				Others	Total
Factory	14(7)	136(63)				63(30)	213(100)
Employees	385(4)	7391(77)				1803(19)	9579(100)
<b>Meghalaya</b>	Food	Building material except cement	Iron and steel	Cement	Wood products	Others	Total
Factories	13(8)	28(17)	27(16)	15(9)	20(11)	65(39)	168(100)
Employees	502(4)	439(3)	2003(15)	7295(53)	817(6)	2655(19)	13711(100)
<b>Nagaland</b>	Food	Wood Products		Building material except cement		Others	Total
Factories	17(9)	55(29)		57(31)		58(31)	187(100)
Employees	167(3)	2195(36)		2879(48)		783(13)	6024(100)
<b>Sikkim</b>	Food	Alcoholic beverages		Pharmaceutical products		Others	Total
Factories	10(11)	8(9)		34(40)		35(40)	87(100)
Employees	1322(6)	695(3)		17600(81)		2068(10)	21685(100)
<b>Tripura</b>	Food	Tea	Building material except cement		Rubber and plastic	Others	Total



Factories	44(7)	37(6)	339(53)	30(5)	192(29)	642(100)
Employees	618(2)	1748(6)	24385(80)	401(1)	3395(11)	30547(100)
Source: Calculated using data from Annual Survey of Industries for FY 2018-19						

#### 4. Discussion

Nearly 25 years ago, GoI announced industrial policy consisting of area based tax incentives to boost industrial development in the states of NER. It resulted in tax expenditure of Rs 1.48 trillion in 12 years (1.13% of tax revenue). We have quantified the tax expenditure only for 12 years as the first computation by GoI was for Financial Year 2004-05 and methodology of computation remained consistent only up to Financial Year 2017-18. It is likely that the tax expenditure would have doubled to nearly Rs 3 trillion in 25 years. The purpose of this study is to examine the impact of the area based tax incentive policy on industrial development of NER and the eight states and to assess whether a uniform area based tax incentive policy for the entire NER was the best option. At the NER level, CAGR for all the seven selected performance indicators is significantly higher than the national level which suggests the policy was successful in bringing additional manufacturing units to the region along with attendant employment, investment and profitability. The CAGR of number of factories for Assam is equal to that of NER. In fact the share of Assam remained steady at nearly 76% over the 22 years, which shows that during the currency of the policy, Assam attracted maximum number of manufacturing units consistently. The only state having higher CAGR of number of factories is Meghalaya, but its share in NER is only 2.3%. All the other states show less than regional CAGR of number of factories. In Arunachal Pradesh there is contraction of industrial activity from 2014-15 to 2019-20. This is the largest state in NER (83 thousand sq km), 93% of which is under forest and only 3% is under cultivation (India State of Forest Report, 2021). Historically, wood based industries dominated the manufacturing sector in Arunachal Pradesh. However, in 1996, Supreme Court of India banned timber felling activities in the state which led to fall in wood based industries. No other sector could rise to prominence which led to contraction of manufacturing sector in Arunachal Pradesh. Performance of Manipur is

better on all the indicators when compared with industries on national basis. However, nearly 63%

of the manufacturing units are in building material sector (brick and stone chips) for local consumption in residential and commercial real

estate. The remaining units are mostly in processing of agro-forest products. Fixed capital per factory and employment per factory at national level is Rs 148 million and 67 persons as against Rs 7 million and 34 persons in Manipur, which suggests that the size of the industrial units is very small. Jaintia Hill district in Meghalaya is rich in deposits of minerals used in manufacture of cement. There are only 15 cement plants (9% of all the factories) but they employ 7295 persons (53% of employment). Similarly, there are only 27 steel plants (16% of all the factories) which employ 2003 persons (15% of employment). In Nagaland, there is no contraction, rather there is a modest rise in manufacturing activity. However, when compared with national and regional CAGR, the state has underperformed. In Nagaland, 30% of the factories are in the business of saw milling, manufacture of plywood, particle boards and veneer sheets, another 30% in building materials and 10% in vehicle maintenance. Fixed capital per factory and employment per factory at national level is Rs 148 million and 67 persons as against Rs 9.5 million and 28 persons, which shows that in Nagaland, size of factories is smaller than national average. According to Walling & Humtsoe (2021), the lack of industrial development in Nagaland, is due to conflict between modern market-based economy with private ownership and tribal-community based economic rights with customary laws and practices and the state government should provide a mechanism for resolving the economic questions while preserving the rights of the indigenous people. Moreover, insurgency, geographical factors and infrastructural constraints have hindered the industrial growth of the state (Das, 2018). In financial year 2019-20, Sikkim had 1.2% of the share of manufacturing units of the NER, but the share of income and profits is at staggering 37% and 44% respectively of the entire region. In this state, pharmaceutical industry is the major sector, which contributed 40% and 81% in terms of number of factories and employment. In F.Y. 2010-11 and also in F.Y. 2017-18, pharmaceutical sector accounted for nearly 92% of income and profit of the industry, as compared to nearly 6% in 2010-11 and 9% in 2017-18 at the all India level (Kolhe P., 2023). The abnormally higher income and profit of pharmaceutical units in Sikkim perhaps points the needle of suspicion towards profit shifting to the units in the NER from the units outside the region. The rise of pharmaceutical sector is attributed to the availability of tax incentives in Sikkim, after the sun set clause came into operation in 2012 in



Himalayan states on tax incentives. The companies in the pharmaceutical sector have a tendency to flock together which was seen in Goa, Baddi and now in Sikkim and also that the motivation for such migration was tax incentives (Mukherjee, 2009). Francis (2015) underscored that after the same policy was notified in 2003 for Himalayan states, pharmaceutical companies from Gujarat, Punjab, Maharashtra and Goa migrated to the Himalayan states and more than 120 pharmaceutical units were operating at Baddi alone and that after the sunset clause became operative in these areas, the pharmaceutical units were being closed and shifted to Sikkim. The Comptroller and Auditor General of India (2019), recorded that the industries were attracted to Sikkim due to tax benefits available under the central schemes. Tripura is second ranked state in terms of number of manufacturing units, after Assam. However, 60% of the units are in food and building material which are for local consumption. In 2021, India produced 7.75 lakh tonnes of natural rubber of which 18% is contributed by NER. Four of the biggest tyre makers in India (Apollo Tyres, CEAT, J K Tyre and MRF) have decided to invest Rs. 11 billion to develop additional two lakh hectares of rubber plantation over a 5 year period mostly in NER to take its share to 32% in production of rubber (The Economic Times, 2021). Tripura is the 2<sup>nd</sup> largest producer of natural rubber in India after Kerala, accounting for 9% of total production in India (Government of Tripura, 2023). However, none of the big tyre manufacturing companies have a tyre manufacturing factory in Tripura, even though, 73% of the natural rubber is consumed by automotive tyre segment. Thus most of the benefits of the policy have been secured by Assam. In 1998, Assam already had 76% of the factories, 92% of fixed capital, 90% of employment and 98% of profitability of the entire NER. It appears that the existing industrial strength of Assam attracted new manufacturing units to take advantage of the tax incentive policy. Goss & Phillips (1999) observed in the state of Nebraska, USA, that tax incentives brought business investments in the areas where there was higher employment and where there was historically higher investment. In Meghalaya and Sikkim, industrial activity increased only in selected sectors: cement and pharmaceutical, respectively. In all the other states: Arunachal Pradesh, Manipur, Nagaland and Tripura, the policy failed to show significant rise in industrial activity. The researchers in this field are almost unanimous that the policy has brought manufacturing units to NER, but it has not resulted in significant industrial growth. In a study by Tata Economic Consultancy Services, Mumbai, sponsored by North Eastern Development Finance Corporation Ltd. in 2004, six years after the introduction of the scheme in 1997, it was observed

that internal rate of return on cost benefit analysis for the policy was positive at 10.9% but then it has recommended removal of restriction of notified area, graded structure of benefits linked to higher level of value addition/employment generation, expansion of the policy to services sector, and thrust to infrastructure development. (North Eastern Development Finance Corporation Ltd., 2004). According to Bhattacharjee & Bhattacharya (2018), no remarkable achievement of industrial growth in the organized sector in the aftermath of such a policy was seen and the region needed to expand its industrial base, suitable to its topography and ecology and that given the intra-regional diversities and topographical vulnerability, the existing uniform industrial policy for North East may not be able to meet the required demand. Hrahsel & Umdor (2022, 2019) have observed that overall, the industrial policies for NER implemented by the GoI to promote industrial development have given a boost to the growth of manufacturing industries in the region, however, this increase in industrial activities have not led to a major structural change in the economy of the region in so far as augmenting the contribution of manufacturing sector to gross state domestic product of states in the region and further that the region's industrial base remains less diversified and lacks capital goods production. Policy makers and researchers have been debating about alternative approaches for speedy industrial development of the region. According to Baruah (2002), India has a counter-insurgency strategy, an economic development strategy and even a vacuous nation-building strategy, however, a thoughtful state building strategy - one that could link state and society in a way that harmonises the interests, cultural values and aspirations of the peoples of the region with the agendas of the national state is required. Das & Das (2011) focused on cluster development approach to give new life to the existing small and rural industries to provide competitive advantage to the firm in three different ways, namely productivity, innovation, and formation of new business firms. Mishra & Upadhyay (2017:9) cautioned that infrastructure driven development alone is not likely to succeed, as there are significant differences across the plain and hilly area and also within these regions, and that the challenges of development are multi-level, diverse and complex. Ojha, Chauriya, Anute (2022) in this paper, they have analyzed what is the impact of Indirect tax reforms in India, as we all know how indirect taxes played progressively vital role in the Indian economy. Excise duty was first introduced in India in 1944. The change in the Indirect taxes was anticipated after independence. As Goods and Services tax (GST) is India's most significant tax reform, which went into effect on July 1<sup>st</sup>, 2017. In 2018, in "Global Investors Summit", Assam

pitched in for heavy manufacturing industry: power equipment manufacturing, automotive, defence manufacturing, railway equipment manufacturing, ship building and repair, aviation MRO, rubber products manufacturing, sugar mills and jute industry (Government of Assam, 2018). Anbumozhi et al (2019) have advocated economic connectivity with the neighbouring countries: Bangladesh, Bhutan, Myanmar and Nepal specifically in the power sector where Bangladesh, India and Myanmar could import power from Bhutan and Nepal. The Look East Policy/Act East Policy has professed centrality of developing infrastructural connectivity and integrating the roads and connectivity routes to routes in South Asia and Southeast Asia in raising NER to global significance (Barua, 2020). National Institute of Advance Studies, in a study sponsored by Japan Foundation, has reviewed the entire socio-economic landscape of North East and come out with nuanced recommendations for each of the state separately, where Japanese agencies can partner with GoI and states on specific projects. Their main recommendations are, in Assam: infrastructure (high speed rail and road connectivity connecting with all the state capitals, with Gauhati acting as a hub), gas based power generation and development of downstream petrochemical industries and agro-forest based manufacturing; in Manipur: state of the art urban planning for the capital city of Imphal; in Meghalaya: mining based industries and hydroelectric power generation; in Nagaland: machine based agriculture, skill development of youth and peace & stability; in Sikkim: hydropower, pharmaceutical units and tourism; in Tripura: natural gas based industries, food processing, rubber and tea (Panneerselvam & Singh, 2022). Thus a blanket and overriding tax incentive policy for NER, costing Rs. 1.48 trillion over 12 years, has achieved little in ushering industrial growth in NER. Large scale infrastructure development (road/rail/air/mobile connectivity) along with establishment of heavy industry based on local natural resources backed by production linked incentives appears to be a better option in developing manufacturing sector in NER. It is likely to generate higher investment and higher paying jobs. Emoluments per person in manufacturing sector (in Rs. thousands) in India is 296 whereas it is 159 in the NER, highest in Sikkim (400) followed by Meghalaya (300). Other states of the region lag behind significantly: Arunachal Pradesh (121), Assam (145), Manipur (79), Nagaland (70) and Tripura (62). The higher paying jobs in Sikkim and Meghalaya are due to pharmaceutical units in Sikkim and cement/steel plants in Meghalaya. Large firms frequently pursue better management and organization of production, as well as seeking outward orientation, innovation, and investment in human capital, which translates

into better outcomes not only for their owners, but also for their workers and for smaller enterprises in their value chains and they represent vehicles of change, driving a substantial share of aggregate economic activity in low and middle income countries, while contributing to net job creation and labour productivity growth across different contexts (Ciani et al, 2020). There could be concerns of deforestation and pollution due to industrial activities, but they can be mitigated with best available technology. Policy of rapid infrastructure development and establishment of heavy industries backed by production linked incentives appears to be a better way forward for industrial development of NER.

## 5. References

- Anbumozhi, Venkatachalam; Kutani, Ichiro; Lama, Mahendra P. (2019). Energising Connectivity between Northeast India and its Neighbours. Economic Research Institute for ASEAN and East Asia.  
<http://hdl.handle.net/11540/9804>
- Baruah S. (2002) Gulliver's Troubles: State and Militants in North East India Economic and Political Weekly
- Barua T. (2020) The Look East Policy/Act East Policy-driven Development Model in Northeast India. Jadavpur Journal of International Relations 24(1) 101–120
- Bhattacharjee J. & Bhattacharya R. (2018) Industrial Policy in North East India. Indian Journal of Industrial Relations 54(2)
- Central Statistics Office (2020). Annual Survey of Industries, 2018-19. Ministry of Statistics and Program Implementation. Government of India.
- Central Statistics Office (2022). Annual Survey of Industries, 2019-20. Ministry of Statistics and Program Implementation, Government of India
- Ciani A., Hyland M.C., Karalashvili N, Keller J. L., & Ragoussis A. (2020). Making it big: Why developing countries need more large firms. World Bank Group E-Library. [https://doi.org/10.1596/978-1-4648-1557-7\\_ch1](https://doi.org/10.1596/978-1-4648-1557-7_ch1)
- Comptroller and Auditor General of India (2019), Report of the Comptroller and Auditor General of India on Economic, Revenue and General Sectors, Government of Sikkim. [https://cag.gov.in/webroot/uploads/download\\_audit\\_report/2019/Report\\_No\\_2\\_of\\_2019\\_Economic\\_Revenue\\_&\\_General\\_Sector\\_Government\\_of\\_Sikkim.pdf](https://cag.gov.in/webroot/uploads/download_audit_report/2019/Report_No_2_of_2019_Economic_Revenue_&_General_Sector_Government_of_Sikkim.pdf)
- Das R., & Das A.K. (2011) Industrial Cluster: An Approach for Rural Development in North East India Industrial Cluster: An Approach for Rural Development in North East India.

- International Journal of Trade, Economics and Finance, 2(2)
- Das R. (2018) An Outlook on Infrastructural Sectors in Nagaland (Power, Road, Transport And Communication). Shanlax International Journal of Economics 6(2)
- The Economic Times (2021). <https://economictimes.indiatimes.com/industry/auto/tyres/tyre-makers-to-invest-rs-1100-crore-in-rubber-plantation-in-northeast-west-bengal/articleshow/95304101.cms>
- Francis P.A. (2015, October 21). End of good times at Baddi. Pharmabiz.com. [www.pharmabiz.com/NewsDetails.aspx?aid=91241&sid=3](http://www.pharmabiz.com/NewsDetails.aspx?aid=91241&sid=3)
- Goss, E. P., & Phillips, J. M. (1999). Do Business Tax Incentives Contribute to a Divergence in Economic Growth? *Economic Development Quarterly*, 13(3), 217–228. <https://doi.org/10.1177/089124249901300302>
- Government of Assam (2018). Advantage Assam. Heavy Industries, <https://advantageassam.com/assets/front/pdf/Heavy-Industries.pdf>
- Government of Tripura (2022) Department of Industries and Commerce <https://industries.tripura.gov.in/rubber-overview>
- India State of Forest Report (2021). <https://fsi.nic.in/isfr-2021/chapter-13.pdf>.
- Kolhe P. (2017). Tax incentive policy for development of Himalayan and North-eastern states in India. *Indian Journal of Public Administration*, 63(1), 136–156
- Kolhe P. (2023). An analytical study based on industrial policy and its impact on the industrial structure of the state of Sikkim. Manuscript submitted for publication.
- Hrahsel, A. L., & Umdor, S. (2019). A Temporal Analysis of the Growth of Manufacturing Industries in Northeast India during 1981-82 to 2014-15 *Social Change and Development* 16(2).
- Hrahsel, A. L., & Umdor, S. (2022). Place-based Industrial Policy and Changes in the Manufacturing Sector in North-East India. *Review of Development and Change*, 27(1), 42–60. <https://doi.org/10.1177/097226612211094095>
- Mishra D.K., Upadhyay V. (2017). Introduction: Locating Northeast India in a Globalising India. *Rethinking Economic Development in Northeast India*. Routledge.
- Mukherjee, W. (2009, April 11). Sikkim turns into a pharma hub. *The Economic Times*. <https://economictimes.indiatimes.com/industry/healthcare/biotech/pharmaceuticals/sikkim-turns-into-a-pharma-hub/articleshow/5192355.cms>
- Eastern Development Finance Corporation Ltd. (2004) Impact Evaluation of North East Industrial Policy, 1997, [https://www.nedfi.com/wp-content/uploads/2021/11/ES-43\\_merged-1.pdf](https://www.nedfi.com/wp-content/uploads/2021/11/ES-43_merged-1.pdf)
- Ojha, Chauriya, Anute (2022), Impact of Indirect Tax Reforms in India: *Journal of Accounting Research, Business and Finance Management*, Volume 3, Issue 2. (e-ISSN: 2582-8851) <https://doi.org/10.46610/JARBFM.2022.v03i02.001>
- Panneerselvam P. & Singh A.M. (2022). Infrastructure and Industrial Development in Northeast India: Exploring the Potential Role of Japan, National Institute of Advanced Studies, Bengaluru, India
- Walling, S. L., & Humtsoe, T. Y. (2021). Political Economy of Development in the Indian State of Nagaland: Issues and Challenges. *Indian Journal of Human Development*, 15(3), 395–409. <https://doi.org/10.1177/09737030211062094>
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