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Role of industries in employment and economy of Nagpur City

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Abstract--Nagpur city lies in the Nagpur district of the state of Maharashtra. It enjoys the status of being the second capital of Maharashtra and is located in the geo-graphical centre of India. It is the 13th largest city in India by population and according to an Oxford's Economics report, Nagpur is projected to be the fifth fastest growing city in the world from 2019 to 2035 with an average growth of 8.41% (Nagpur, n.d.) . It is also an administrative educational, commercial and cultural centre of Vidarbha region. This paper will be focusing on the existing economy condition of Nagpur City which includes employment in agricultural & non-agricultural activities. Working population, density of workers and per capita income will be the major area of research in this study.

Keywords--Nagpur, Economy, Industry, Work- Force, Employment, Types of Industries.

1 Introduction

Nagpur is an emerging Metropolis of India and the fastest growing millionaire city also (Nagpur, n.d.). The city has enjoyed the status of being the administrative centre of Central India during the ancient and medieval eras. It carries a legacy of cultural and economic prosperity. In the modern era, though Nagpur has lost its politically prime position, natural aspects of geography, climate and location continue to position it favourably for prospering as an economic hub.

The city was also among the top 15 cities contributing towards the GDP of the country in the year 2011-2012 with a share of about 0.82% making it the 3rd major contributor from the State after Mumbai and Pune. Nagpur's nominal GDP was estimated to be around ₹ 1,406,860 million in 2019–20, making it the largest economic center in entire central India. Nagpur district has a per-capita GDP of ₹ 270,617 as of 2019-20 financial year, being the highest in the central India. (Nagpur, n.d.) .

2 Need for the Study

Nagpur measures well on various liveability indices in comparison with other cities. It has the lowest income inequality among various cities in the country. 'India Today – R K Swamy BBDO Guide to Urban Markets', also ranked the city as the tenth wealthiest, highest consuming and most aware Indian city in 2004. Nagpur's vantage location coupled with growth triggers like the construction of the east-west and north-south corridors, proposed investments in the multimodal transport hub, development of the special economic zone, and revival of industries in the Vidarbha region would stimulate economic growth.

In addition, Nagpur has all the ingredients for emerging as a high quality service centre. IT being a knowledge-based industry, quality human resources are one of its key requirements. The region around Nagpur has 27 engineering colleges with about 8,600 engineering students passing out of these colleges every year. (After the Pune region, Nagpur has the highest number of engineering colleges in the state of Maharashtra.) This would render Nagpur an attractive location for the IT-ITES industry. Low labour cost and the availability of highly skilled manpower would add to Nagpur's attractiveness. Information Technology Enabled Services (ITES) and Business Process Outsourcing (BPO) units would also consider Nagpur as a business destination, as they prefer locations with low cost of living. The figure for Nagpur is substantially lower as compared to most other IT destinations in the country. A Dataquest-IDC study of the top ten IT cities in India ranked Nagpur seventh, based on parameters such as manpower availability, information, communication and technology (ICT) infrastructure availability and usage, lifestyle and environment. Also, as per the KPMG – NASSCOM survey, Nagpur is one of the top four tier II cities that have a huge potential for information technology and IT enabled services. Nagpur holds a strategic position in international aviation routes. Its unique location at the crossing of the air route between Europe and South-East Asia as well as between South Africa and North-East Asia makes it a logical and ideal location for a passenger and cargo hub.⁷ Within India also, the fact that the trunk north-south and east-west highways and railways also cross at Nagpur makes it a natural choice as a transport hub based on multimodal transport principles. (Nagpur Municipal Corporation, n.d.)

3 Methodology

This research study focuses on (a) economy and (b) industries of Nagpur District which focuses its contribution in the state's economy, and employment. The research study is done through data collected by secondary sources. The parameters considered in this research to study the economy of Nagpur District consist of (i) total enterprises and employment (ii) Employment in Agricultural & Non Agricultural Activities (iii) Per Capita Income of Nagpur District (iv) Working Population (v) Economic Base of Nagpur City. The parameters considered to study the industrial scenario and its share in economy of Nagpur District and for generating employment in Nagpur District comprises of (i) industrial area (ii) types of industries and units (iii) employment generated by particular type of industries.

4 City Profile of Nagpur District

As per census of India, 2011 the population of Nagpur District is 4,653,570. The district has a population density of 470 inhabitants per square kilometre (1,200/sq mt.). The population growth rate of the district over the decade i. e from 2001–2011 was 14.39%. Nagpur District has a sex ratio of 948 females for every 1000 males, and a literacy rate of 89.52%. Nagpur is located at practically the geographical center of India; in fact, the Zero Milestone of India (a heritage monument) is in this city. (Nagpur is 837 km from Mumbai, 1094 km south of Delhi, 1092 km north of Chennai and 1140 km west of Kolkata). All major highways -- NH-7 (Varanasi - Kanyakumari) and NH-6 (Mumbai - Sambalpur - Kolkata) and major railway trunk routes (Mumbai, Chennai, Howrah and Delhi) pass through the city.

Important Central & State Government offices and institutions are located in Nagpur. Thus, distance and connectivity with all the important Indian cities gives Nagpur an inherent advantage. It can be seen as a transport hub, connecting the Indian cities to each other and international destinations as well. Various IT and ITES companies are also viewing this characteristic as a strong positive factor. The city provides access to its own skilled manpower and also to that of the entire region.

Industrial Development is existing along the fringe areas like Kamptee, Hingna, Wadi, Khapri, Butibori and Kalmeshwar. The surrounding region is an undulating plateau rising northward to the Satpura Range, from 889 to 2,142 feet (271 to 653 m) high and is drained by the Kanhan and Pench rivers in the center, the Wardha in the west, and the Wainganga in the east. Both these rivers later merge as tributaries into the Godavari river. The soil is fertile black (cotton) in the west and the north and alluvial in the east. The average annual rainfall is 45 inches, with more rain in the east than in the west. In the west, the hills are forested. In the northeast are the hills of Ramtek.

4.1 Topography

Nagpur district lies between 20.35 to 21.44 North Latitude and 78.15 to 79.40 East Longitude., in the plain to which it gives its name at the southern base of the Satpuda Hills. It has an area of 9,892 Sq. km. The district is bounded on the north by the Chhindwada and Seoni districts of the Madhya Pradesh, on the east by Bhandara, on the south and west by Chanda and Wardha, respectively, and along a small strip on the north-west by the Amravati district. The northern range of hills extends along the whole border, being pierced only in two places where the Kanhan and Pench rivers have broken through. On the west it consists merely of the outlying foothills of the Satpudas, the plateau proper lying behind them in Chhindwada. But from the Kanhan to the Pench, it is the major range of the Satpudas themselves which dominates the landscape, and the ascent of the Khamarpani plateau is made in Nagpur. Along this length the hills are well wooded and picturesque, and there is some striking scenery on the Pench river. (Nagpur, n.d.)

In the Archaean area the rocks are hidden beneath a considerable thickness of alluvial soil, deposited by the tributaries of the Kanhan and the Wainganga rivers. In the trappean area the soil is usually the black cotton soil known as regur with Kankar, which is also found in the soils on the Archaean areas. The climate of this district is characterised by a hot summer, well distributed rainfall and dryness except in the rainy season. The cold season is from December to February and is followed by the hot season from March to May. The south-west monsoon season is from June to September while the period October-November constitutes the post monsoon season.

4.2 Availability of Minerals

Nagpur district is moderately rich in minerals. Deposits of Coal, Manganese ore, Dolomite, Limestone, Iron Ore, Clay, Copper Ore, Chromites, Tungsten Ore, Zinc Ore, Lead Ore, Granite, Quartz etc. are found in the district. Coal reserves have been found in the North-West belt of the district i.e. from Saoner to Kanhan (Kamptee apart from the high coal found in umrer tahsil). Nagpur district is richly endowed with Manganese Ore and the district is well placed in the country as far as production of Manganese ore is concerned. Manganese ore is found particularly in Ramtek and Saoner tahsils. Good quality limestone is found in Kandri and Deolapar, Mica and Tungsten are also found in the district. The sand from Kanhan River is considered to be of high quality as far as the construction of building is concerned (refer table 1).

Table 1: Production of Mineral 2010-11

S.No.	NAME OF MINERALS	PRODUCTION in MT. 2010-2011
MAJOR MINERALS		
1	Manganese Ore	194127
2	Coal	2256705
3	Dolomite	19418
MINOR MINERALS		PRODUCTION IN MT. 2010-2011
1	Murum	NA
2	Gitti/Bolder	NA
3	Sand	NA

Source: Maharashtra State Economic Survey, 2013

4.3 Forest

During the year 2010-11, an estimated 2765 Sq KM of area was under forest which constituted 27.95% of the total area. Forest resources contribute significantly to the economy of the district. Most of the land under forest can be found on the banks of Pench River, at the foot hills of Satpuda in Ramtek tahsil. Teakwood is available from these forests in sizeable quantity. The other resources are Tendu Patta, Gum, Bamboo, Grass etc.

4.4 Working Force and Dependent People

If we discuss the working force and the dependent people first we have to check the age-sex pyramid it is clear that total number of population belong to the age group below 15 and above 60 is 745685 and the total population belong to the age group 15 to 59 is 1306381. From that it can be said the dependency ratio is 570. So 570 person is dependent per 1000 persons in the working age group. The number of students are greater than the working age group which make it clear that there is a gap of education and getting job . for that many people are migrated to other places for finding job .Also as Nagpur is a educational hub many students from other places come here for educational purpose so the number of students are greater.

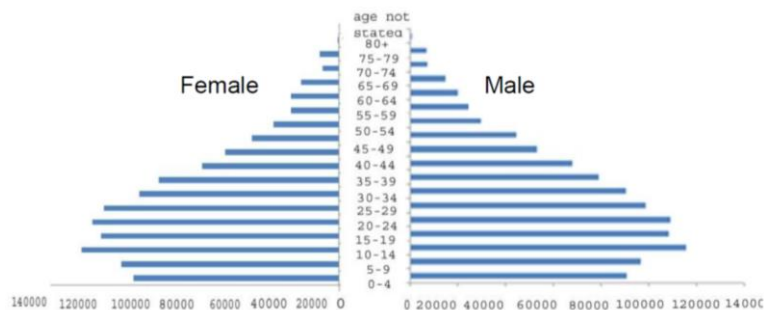


Figure 1: Ae Sex Pyramid
Source - Census of India, 2011

As per census of India, 2011, after analyses the working force of the Nagpur city there are 27.66% main worker, 3.3% marginal worker and 70% of non-worker. So there is a lack of job opportunity. It can be also said from the below table that 27% of population belong to the marginal worker though they are educated at matric level and 6.53% of population are technically graduate. Again 39% population are educates matric level and 16% are graduate but they are belong to the non-worker.

5 Nagpur District Economy

In terms of economic importance in the State, Nagpur District comes 6th after Mumbai, Pune, Thane, Kolhapur and Aurangabad with 4.78% share in state enterprises and 4.36% share in state employment. For the purpose of comparison among the districts, Mumbai has been excluded due to its primacy in the State.

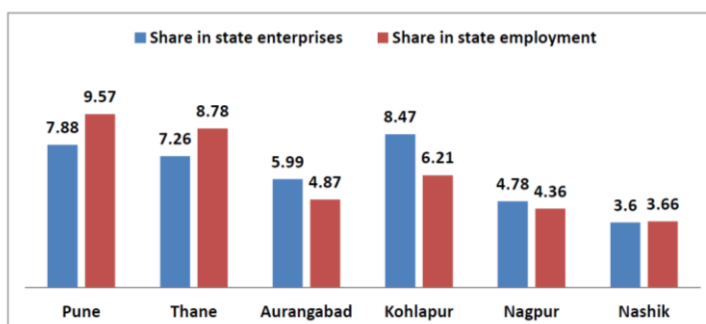


Figure 2: Share of Nagpur District in the Total State Enterprises and Employment
Source: Maharashtra State Economic Survey, 2006

5.1 Total Enterprises and Employment in Nagpur District

Being the only city in the District, Nagpur alone contributes to the total expanse of the urban area as well as urban activities. The share of the urban area in terms of enterprises and employment comes out to be approx 72% and 75% respectively.

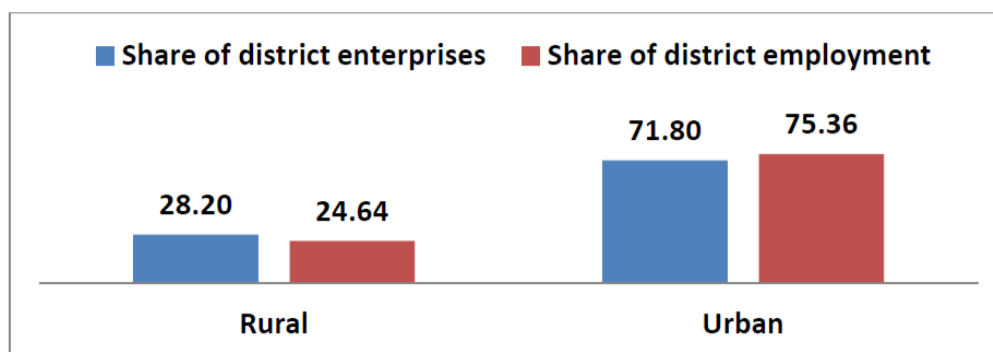


Figure 3: Share of the Urban and Rural Area in the total District enterprises and employment

Source: Maharashtra State Economic Survey, 2006

5.2 Employment in Agricultural & Non Agricultural Activities in Nagpur District

Nagpur district employs 76.5% population in non-agricultural activities which is more than the state average of 73% as well as share in Pune (68%) but well behind the districts of Thane, Nashik and Aurangabad which are above 90%. Nagpur District employs 5.04% of the population employed by the state after Pune(9.79%), Thane(10.8%), Mumbai(21.89%) in non-agricultural activities. This employment has seen a growth of 11.19% from 1998 to 2005. Also, it employs 2.47% of working population of the state after Kohlapur(34%), Sangli (4%),

Solapur(4%), Satara(8%), Ahmednagar(8%), Pune(10%) in agricultural activities. This employment sector has seen a growth of 44% from 1998-2005.

5.3 Per Capita Income of Nagpur District

The per capita income of the district is above the national as well as the state average of the per capita income owing to more share in urban non-agricultural activities as opposed to the distribution in state and country.

5.4 Working Population in Nagpur District

The comparison with the state and country's share of working population reveals that the district's share is largely in line with the state as well as the nation. Also implies that the workforce available is of young age and offers valuable resource for the economic development of the city. (refer to table 2)

The density of workers in the district, be it agricultural or non-agricultural activities, comes out to be 125 workers per 1000 population which is well above the state average of 114 as well as the other major districts of Thane, Aurangabad and Nashik.

Table 2: Share of working population in the district over the years

Share of Working Population	NAGPUR DISTRICT				STATE	NATIONAL
	1971	1981	1991	2001	2001	2001
	53	55	59	62	59	59

Maharashtra State Economic Survey, 2006

5.5 Economic Base of Nagpur City

About 30 percent of the city's population is 'working' as per Census of India-2001. About 85 percent of the working population is male. Trade, hotels and restaurants is the largest industry group in the city. About 36.3 percent of the working population is engaged in this industry group. Transportation sector employs 17.6 percent of the total working population. Nagpur's location on the confluence of various transportation routes has probably contributed to the large share of employment generation in the trade and transportation sector. Manufacturing also has a significant presence in Nagpur with 15.4 percent of the working population involved in this sector.

As per Nagpur Development Plan, 2011 the tertiary sector has seen a huge increase in terms of employment i.e 62.19% in 1971 to 72.3% in 2001 followed by secondary sector is being stable over the years. The primary sector has decreased to almost negligible due to just 1% land in the city being under agricultural use (refer fig 4).

As per NSS 55th round survey and census 2001, the work force participation rate has increased from 1991 i.e 28% to 30.6% in 2001 owing to the initiation of the MIHAN project which saw a generation of employment opportunities. Economics

of the city are dominated by trade, hotel and restaurant segment. Based on trends in other metropolitan cities the worker participation ratio will increase in future decades. The Worker participation ratio for 2011,2021 and 2031 is likely to be 33%,35% and 36% respectively.

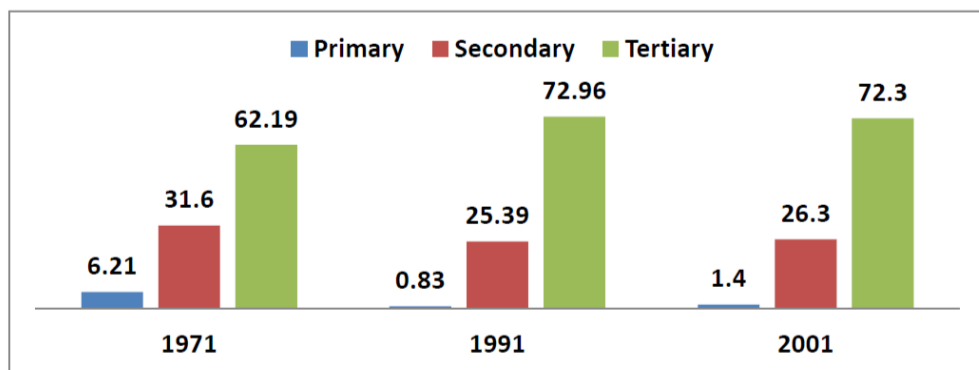


Figure 4: Distribution of employment sectors in the city over the years
Source: Nagpur Development Plan, 2011

Gross domestic product (GDP) is the market value of all officially recognized final goods and services produced within a country in a given period of time. As per the economic survey of 2011-2012, Nagpur is ranked 13th among the top 15 cities contributing to the country's GDP. Ranked 3rd among the major contributors from the state of Maharashtra.

6 Industries

There are 11 industrial area in Nagpur district which acquires total of 3889.83 hectare of land in the district. Butburi acquires the major land i.e 2420.62 followed by Hingana i.e. 745 hectre, Katol i.e. 138.44 hectare, Kamleshwar i.e. 110 hectare. Inspite of Butburi holding major land Hingana has the maximum number of units in production i.e. 1266 inspite of the higher prevailing rate per sq.m than Butburi followed by Butburi which is 722 units in production (refer to table 2).

The total industrial unit in the Nagpur district is 10356 and are registered industrial units. The registered medium and large industrial unit is 213 and the estimated average number of daily workers employed in small industries are 104421 and in medium and large industries are 24594. The maximum turn over is also observed to be from small scale industries (refer table 3) and the major exportable item are steel bar, rice, manganese oxide, spun yarn, aluminium sheet, castings, fabric, steel forging, dal, mango puree, partially oriented yarn, spun yarn, wool yarn and others.

There are 27 types of industries 27 types of industries including small, medium and large industries in Nagpur City which consists of 1226 units and employees 11,338 persons. Timber industries dominates the other industries in the city with 749 units within the city area which employees maximum person i.e. 2996 persons followed by printing press/litho offset/ corrugated/ boxes/ paper board/

news print industry which is 89 unit in the city area and employees 895 people. Plastic and polymers industry is the second employment generating industry in Nagpur City with 1500 employees (refer table 5).

Table 3: Existing Status of Industrial Areas in the District Nagpur as on 31/10/2016

S.No.	Name of Ind. Area	Land Acquired (Hectare)	Land Developed (Hectare)	Prevailing Rate per Sq.m.(Rs.)	No. of Plots	No. of Allotted Plots	No. of Vacant Plots	No. of Units in Production
1	Hingana	745.83	745.83	1000/-	1253	1253	00	1266
2	Butbori	2420.62	2420.62	400/-	1264	1151	113	722
3	Kalmeshwar	110.50	110.50	350/-	165	164	00	122
4	UT Parsodi	11.66	11.66	2200/-	46	46	00	26
5	Umrer	326.01	326.01	200/-	217	133	46	09
6	Katol	138.44	138.44	75/-	83	82	01	16
7	Saoner	73.95	73.95	75/-	72	71	00	27
8	Narkhed	20.59	20.59	30/-	16	16	00	02
9	Bhiwapur	12.68	12.68	30/-	46	8	38	01
10	Kuhi	15.55	15.55	30/-	37	37	00	02
11	Parseoni	12.00	12.00	30/-	40	38	01	12
		3889.83	3889.83		3239	2999	199	2195

Source: Source: Maharashtra Industrial Development Corporation, Nagpur, 2016

Table 4: Industrial Scenario Of Nagpur District

S. NO.	Heads	Unit	Particulars
1	Registered Industrial Unit	NO.	10356
2	Total Industrial Unit	NO.	10356
3	Registered Medium & Large Unit	NO.	213
4	Estimated Avg. No. of Daily Worker Employed in Small Scale Industries	NO.	104421
5	Estimated Avg. No. of Daily Worker Employed in Medium and Large Scale Industries	NO.	27594
6	No. of Industrial Area	NO.	12
7	Turnover of Small Scale Industries	IN LACS	901209
8	Turnover of Medium and Large Scale Industries	IN LACS	58638

Source: Maharashtra Industrial Development Corporation, Nagpur, 2016

Table 5: Types of Industries in Nagpur City

S.NO.	Type of industry	Number	Employees
1	Oil Mills	27	378
2	Printing Press/Litho Offset/ Corrugated/ Boxes/ Paper Board/ News Print	89	895

3	Ginning/Press Factory	2	150
4	Country Liquor & Soft Drinks	17	305
5	Breads & Biscuits	9	800
6	Spices (Chilly Powder)	8	200
7	Animal Feed	5	150
8	Public Sector (Msrtc Depo)	6	600
9	Rolling Mill	28	600
10	Fabrication & Engineering	128	800
11	Automobiles Workshop	22	750
12	Bulbs (Auto	4	40
13	Fastners & Bolts	8	100
14	Chemical	42	210
15	Timber (Saw Mill)	749	2996
16	Cosmetic	2	20
17	Pharmaceutical	12	200
18	Insecticide	3	70
19	Warehouses (Govt.)	3	-
20	Ice Factory	8	32
21	Cold Storage	7	42
22	News Paper & Magazines	6	300
23	Plastics & Polymers	14	1500
24	Inks	5	80
25	Dal Mills	12	120
26	Wooden Furniture	8	0
27	Glass Factory	2	0
	TOTAL	1226	11338

Source: Maharashtra Industrial Development Corporation, Nagpur, 2015

7 Conclusions

The city though having a provision for industrial development on western and southern side (Amravati road, Hingna Road, Buti Bori), it has still not achieved a clear distinction to call itself an industrial town/city. Few offices of Central and State Govt. are located in the city as field offices. It also holds the winter session but doesn't provide any support for identifying it as an administrative centre. It is the collection and trade centre for agricultural produce in the vicinity, but the manpower involved in this particular activity is not that dominant to identify it as an exclusive trade centre.

The city ranks 13th in terms of contribution to the GDP of the country. (Nagpur, n.d.) It is the 3rd major contributor to the GDP as well as the GSDP. The winter capital of Maharashtra has contributed a GDP of \$15.1 billion. It is a major trade center for oranges which are cultivated in the city. The banking sector and food manufacturing sectors are important to the city in terms of finance. It is also considered a major commercial and political center of Maharashtra. Nagpur is the headquarters for national level scientific and governmental establishments.

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