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Urban development and rural-urban linkages in six towns in Bihar

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URBAN DEVELOPMENT AND RURAL-URBAN LINKAGES IN SIX TOWNS IN BIHAR

Tanuka Endow

Section 1 Introduction

The world is becoming increasingly urbanized. Globally 54 percent population lives in urban areas today (UN 2014). Although Asia is still relatively more rural than the Americas and the Europe, it is home to 53 per cent of the world's urban population. What is more, just three countries—India, China and Nigeria—together are expected to account for 37 per cent of the projected growth in the global urban population between 2014 and 2050 (ibid). The urbanization was 31.1 percent for India according to Census 2011 data, although according to recent studies, South Asian countries may have 'hidden urbanization' and the actual urbanization rate would be much higher (Ellis and Roberts 2016). This is because the official statistics understate the share of population living in areas with urban characteristics.

The process of urbanization historically has been associated with important economic and social transformations, encompassing higher mobility, lower fertility and longer life expectancy. Urban living is also usually associated with higher levels of health and educational outcomes, along with increased access to social services. Overall, it may be said that urban development characterizes the economic transformation of any region today and it is generally associated with industrialization, reflecting the transition from an agriculture-dependent economy to an industrialized one with concomitant development in infrastructure and access to basic facilities such as water and sanitation. Although recent experiences in many South Asian countries demonstrate that the trajectory of development need not always be from agriculture to industry, as the impetus for growth can come from the services sector (Ghani and Kharas

2010, GoI 2015), the process still involves transfer of labour from the less productive agriculture sector to other sectors. An associated process in this context is that of increasing urbanization and urban development.

The relation between economic growth and urban development is often symbiotic. Urban centers can facilitate growth by raising the productivity of output and employment, by mobilizing and channelling savings and allowing accumulation of wealth in the form of urban real estate, and through fiscal flows, providing revenue (World Bank, 2000 cited in Pangotra and Govil 2008).The development process of an urban centre is likely to be linked with the nearby rural economy through exchange of goods, services, labour, capital, information-technology and social transactions.

The findings of the present study indicate that industrialization and urbanization in the state of Bihar is very much Patna-centric. Urban development is taking place not in a pyramidal way, where the urban population is distributed with a wide base in smaller towns, feeding successively into bigger towns. It is taking place in a way such that urbanization is concentrated in big cities. The rural-urban linkages, too, are not always between rural hinterland and nearest town, but is also between the villages and far away urban centres, including those outside the state and even outside India. Some evidence of regional linkages were also found.

The findings also show that smaller towns and semi-rural areas exhibited signs of growth in terms of construction, more transport services, connectivity, availability of consumer goods, etc. These were found to have markets quite well connected to the national network with abundant supply of consumer goods. But there was little evidence of sizeable industry coming up in a big way in these places and very limited presence of locally produced goods was found in the

markets. The supply network in the sample towns is connected far and wide with bigger towns in Bihar and with other urban centres in India.

Pattern of Urbanization in India and Bihar

India as a country has witnessed steady growth in its urbanization process, but not at a very accelerated pace. Starting from 1991, the census figures indicate urbanization of 25.5% which rose to 27.2% in 2001 and further to 31.2% in 2011[1]. Some of the urbanization during the last decade has been attributed to the fact that new Census Towns[2] account for almost 30% of the urban growth in last decade, with large inter-state variations (Pradhan 2012). These are responsible for almost the entire growth in urbanization in Kerala and almost none in Chhattisgarh. While some new census towns are concentrated around million-plus cities, more than four-fifths are situated outside the proximity of such cities, indicating a dispersed pattern of in-situ urbanization. Thus, rather than new towns coming up, in a sense some hitherto rural areas have been 'recognized' as towns.

The rate of urbanization notwithstanding, the absolute numbers are challenging. According to estimates by UN, between 2014 and 2050, the urban areas in India are expected to grow by 404 million people (UN 2014). Evidently there is an

[1]In the Indian context, a human settlement is called urban when it has a minimum population of 5000, has a population density of at least 400 per sq km, and has 75% of the male population working in non-agricultural sector.

[2] Census towns are distinct from Statutory Towns, where the latter are administratively declared urban areas by a state law which includes all manner of urban local bodies, such as municipalities, town panchayats, cantonment boards, etc. The census towns, on the other hand, are complete settlements declared as towns by the Registrar General of India, on the basis of three urban characteristics as mentioned in Footnote 1. A third type of urban area are the 'Outgrowths' which are viable units that emerge adjacent to, but outside the administrative limits of statutory towns. These are, however, not complete settlement units, like an entire village.

urgent need for systematic planning to meet the challenges of this urbanization process.

The state of Bihar presents a paradoxical situation in the sense that it is a state which has posted relatively high rates of economic growth in the last few years, and which yet has a very low urbanization rate. Many villages in the state satisfy the first two criteria of the definition of urbanization, but Bihar being a predominantly agriculture-based economy, these villages do not satisfy the third criterion of three-fourths of males working in non-agriculture. Thus, due to the absence of a strong non-agricultural sector, despite a large population and a high population density, the urbanization rate in Bihar is just 11.3 % as of 2011, vis-à-vis 31.2% for all-India[3]. Not only are the absolute levels low, the growth rate of urbanization has also been very slow, rising from 10% in 1991, to 10.5% in 2001 and further to 11.3% in 2011.

The pattern of urbanization in Bihar is lopsided with South Bihar considerably more urbanized than the north, and urbanization overwhelmingly concentrated in large cities. A comparison of data for two successive census rounds shows that Class I towns (with more than one lakh population) accounted for about 59.3% of the total urban population of the state in 2001, and the share declined very slightly to 57.5% by 2011 (Tables 1.1 and 1.2). Table 1.3 presents the comparative distribution of urban population in North Bihar and South Bihar. In 2001, class II (population between 50,000-<100000) and class III (population between 20000-<50000) towns accounted for about 37% of the population. The rest of the towns accounted for only around 3.5% of the total urban population. The distribution of population shares among the different size-class of towns has not changed substantially in the next decade, with Class II and Class III towns

[3] However, some of the higher urbanization has been attributed to larger number of 'census towns' which is a result of reclassification of rural settlements into census towns (Pradhan 2012).

accounting for 37.2% of the urban population and the smaller towns accounting for just above 5%. Thus, the number of all classes of towns have increased during the decade, and there is a remarkable increase in the number of class V towns from 3 in 2001 to 38 in 2011. In addition, there are 9 class VI towns in 2011. While some of the increase in number of towns between the two census periods can be attributable to the reclassification as 'Census towns', the fact remains that Class I towns continue to dominate the urban population and very small towns are also accounting for more of urban population, while Class II and III towns together have a stagnant share of urban population.

Table 1.1 Number of towns and population shares in Bihar, 2001

Town Class	Number of towns	Percent of towns	Population	Population share
Class I (1,00,000 & above)	19	15.8	5144150	59.3
Class II (50,000 - 99,999)	16	13.3	1186294	13.7
Class III (20,000 - 49,999)	65	54.2	2050588	23.6
Class IV (10,000 - 19,999)	17	14.2	280820	3.2
Class V (5,000 - 9,999)	3	2.5	19948	0.2
Total	120	100	8681800	100

Source: Census 2001

Table 1.2 Number of towns and population shares in Bihar, 2011

Town Class	Number of towns	Percent of towns	Population	Population share
Class I (1,00,000 & above)	26	13.1	6755370	57.5
Class II (50,000 - 99,999)	28	14.1	1829820	15.6
Class III (20,000 - 49,999)	76	38.2	2539376	21.6
Class IV (10,000 - 19,999)	22	11.1	334484	2.8
Class V (5,000 - 9,999)	38	19.1	264276	2.2
Class VI (less than 5,000)	9	4.5	34690	0.3
Total	199	100	11758016	100

Source: Census 2011

However, this implies the absence of balanced urbanization in the state. Balanced urban development implies a pyramidal hierarchy with a broad base of small towns, each being served by a larger town of the next order, which in turn forms part of the hinterland of the next higher order town. This is lacking in Bihar with no backup structure of small towns to provide lower order functions across various regions of the state. Experts also have opined that development and growth impulses in Bihar are mostly Patna-centric, to the detriment of the development in the state.

Table 1.3 Classification of Cities in Bihar into Classes as per Population, 2011

Cities	Population Range	Bihar No. of towns	Bihar % of Population	North Bihar No. of towns	N Bihar % of Population	South Bihar No. of towns	S Bihar % of Population
Class I	> 1,00,000	26	57.5	13	50.2	13	62.9
Class II	50,000 - 99,999	28	15.6	13	16.9	15	14.6
Class III	20,000 - 49,999	76	21.6	41	26.3	35	18.0
Class IV	10,000 - 19,999	22	2.8	12	3.7	10	2.2
Class V	5,000- 9,999	38	2.2	20	2.7	18	1.9
Class VI	Less than 5000	9	0.3	2	0.2	7	0.4
Total		199	100.0	101	100.0	98	100.0

Source: Census 2011

Rural-urban Linkage

Several studies have highlighted the importance of small towns as a centre for urbanization and source of demand in recent times (Denis et al 2012, Nielsen 2012). Denis et al (2012) find some evidence that rural non-farm diversification

(and resultant rural poverty reduction) occurs more rapidly where there is a consumption growth in neighbouring urban centres and suggest that the association is stronger if the urban centre is a smaller town than if it is a large city. Nielsen (2012) finds that Fast moving consumer goods market increased at 15% in 2011 which is a fairly good rate of growth. Here demand has been spearheaded by Tier II and Tier III towns whereas earlier metros (more than 10 lakh population) drove demand.

Much of the literature on urbanization and rural-urban linkages has focused on urbanization with its impact on rural poverty. According to Datt and Ravillion (2010), unlike in the pre-reform period, when urban economic growth did not really bring any benefit to the rural sector, the post 1991 data provides evidence of a positive feedback effect between urban economic growth and reduction of rural poverty, which may be reflective of the growing urban-rural linkages. Their analysis has recently been extended to 2012 (Datt et al 2016). They find that rural-urban linkages are strong and the impact of urban growth in terms of lowering rural poverty has been relatively much stronger in the post-1991 period for India. However, re-distributional forces are also at play and there is increasing inequality within the rural and urban sectors and also, to some extent, between the sectors. Poverty is, in fact, getting increasingly urbanized, raising question regarding how long the simple rural-urban migration process can continue to impact poverty, in case overall growth is not adequate.

The crucial importance of urbanization in the context of benefitting from economic growth has been demonstrated effectively by Krishna and Bajpai (2011) who used data for the period 1993-2005 to show that the distribution of benefits from economic growth since the early 1990s has followed an identifiable spatial pattern. They demonstrated that in the post-reform years, when urban centers experienced economic growth, far flung rural areas, where more than half of the Indian population lives, grew poorer.

In Bihar, the scope to utilize the urban-rural linkages for growth potential is as yet limited. With a total of 14 urban agglomerations, 139 statutory towns and 60 census towns in 2011, the number of urban centers in Bihar is far less than other states. These are also unevenly distributed across districts and have not achieved their full potential to contribute to the state's economic growth, reflected in extremely high rates of out migration from the state as well as urban centers.

Other features of the Bihar economy that would have an impact on the urbanization in the state are low share of workers in manufacturing and low outreach of the financial sector. According to the sectoral composition of GSDP at constant (2004-05) prices[4], the relative shares for the period 2010-14 stood at: primary (22.0 percent), secondary (19.2 percent) and tertiary (58.8 percent). While the overall secondary sector's contribution to the GSDP increased from 11.6 per cent in 1999-00 to 19.2 per cent in 2010-11-2013-14, the contribution in it from manufacturing decreased from 5.7 to 4.8 per cent in the corresponding period (Table A1.1 in Annexure). Bihar's industrial sector contributes only about 19 percent to its GSDP as against an average of 26 percent at the national level.[5]

The lop-sided development of urbanization in Bihar is reflected in the much lower percentage of workers engaged in the manufacturing sector as compared to the national average and most other states. The majority of urban workers in Bihar are engaged in wholesale and retail trade and services, rather than in manufacturing and industrial sector that is vital for urban growth. Moreover, the construction sector, which is spearheading the growth in the state, involves considerable migrant labour. It is not surprising that urban poverty in Bihar was

[4]As calculated from Bihar Economic Survey (2014-15)
[5] Source:
http://planningcommission.nic.in/data/datatable/data_2312/DatabookDec2014%202.pdf

31.23 per cent per cent in 2011-12, a figure significantly higher than the national average of 13.7 per cent (Planning Commission, 2013)[6].

In North Bihar, the industrial sector has very low proportion of employment among cities. In both North and South Bihar, most cities and towns are largely dependent on the primary sector, according to an analysis based on the Locational Quotient technique (Pangotra and Govil 2008)[7]. But in South Bihar, among Class I cities, three largest cities namely, Patna, Gaya and Bhagalpur have services as their basic sector. These cities accounted for around 30.78% of the urban population of Bihar, according to the above study.

The financial sector, too, is underdeveloped in Bihar. With a high population density of 1102 persons/sq.km as well as a high share of rural population at 88.7%, Bihar has quite limited exposure to banking services.[8] The per capita availability of financial services is the lowest in the country. Around 44% of the households in Bihar avail of banking service compared to a national average of 58% households.

The poverty ratio in the state is 33.7 per cent as per the 2011-12 NSS data with little difference in the rural-urban poverty levels. Census 2011 data indicate

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[6]Government of India (2013), 'Press Note on Poverty Estimates 2011-12', Planning Commission, Government of India, 22 July 2013.

[7]The Location Quotient technique compares the local economy to a reference economy, and thereby identifies specializations in the local economy. Location quotient (LQ) is the ratio of share of an industry in the employment in the local economy, to the share of same in the national economy. A value of LQ>1for any industry indicates that the local economy is a net exporter of the goods and services provided by the particular industry. On the other hand, if the value is LQ<1, it indicates that employment in the respective industry is lesser in the local economy as compared to the reference economy, and therefore, the local economy is a net importer. In the framework of the standard export base model, the industrial sectors with LQ>1 are designated as "basic" sectors while those with LQ<1 are designated as "non-basic" sectors.

[8] www.sidbi.in/sites/default/files/psig/Status_of_FI_Bihar.pdf accessed on 2nd January, 2015.

considerable gaps in provision of housing, and amenities such as electricity, water and sanitation for most of which Bihar lies much below the national average.

Research Questions

In this backdrop, the current study attempts to explore the overall pattern of urbanization and rural–urban linkages in Bihar using both primary and secondary data. The sources of urban output and growth are traced with reference to three towns in the more industrialized South Bihar and three in less industrialized North Bihar, which will provide insight into the process of development for these regions. On the basis of enterprise surveys in the six sample towns in the state, an attempt has been made to trace the sources of urban output and growth, functioning of urban labour markets and to understand the rural-urban linkages with respect to development in the towns influencing that in the surrounding rural areas. A household survey of the population in the six towns is expected to yield an understanding of the nature of exclusion in the context of urban development.

Section 2 Data and Methodology

The research questions outlined in Section 1 were investigated with the help of both primary and secondary data. Among the secondary data, Census of India, Annual Survey of Industries, Economic Census, District Level Business Register and other secondary data collected from the State Government are the major sources. Various rounds of both Census and NSS data have been used in this study. Besides, data from the Economic Census, municipalities, trade associations etc. have also been used.

The primary data collection was done with the help of sample survey conducted in the six selected towns of Bihar namely Darbhanga, Madhubani, Jhanjharpur, Patna, Biharsharif and Hilsa. The enterprise surveys were conducted with the factories, shops and establishments in the sample towns. This survey included various questions to extract the information about the outputs and growth of the firms. This included questions regarding the identification particulars of the firms, enterprise details, worker related details, details of the members of the household which has enterprise/shop located within their living premises, related information about factory workers, establishments (including Directory and Non directory enterprises), the own account enterprises (OAE) and challenges and problems faced by them. The survey was conducted during the months of August-November 2015. An initial pilot was conducted during July, 2015 and this was followed by the full survey. The total number of enterprises covered in the enterprise survey conducted was 907 of which 31 are registered under the Factories Act.

Qualitative research tools were also used for the study. Focus group discussions and in-depth interviews were conducted within the different settlements and also in industrial settings, corporations, and with municipality staff, in order to collect and understand perceptions regarding development, changes in labour markets, employment opportunities, challenges to expansion and growth, etc. A total of four FGDs and fourteen in-depth interviews were conducted in all six towns. Consultations and interviews with key informants and local urban administrators, state government officials, local resource persons and officials from various other institutions such as chambers of commerce were also held. Also consultations were held with the owners of some factories and enterprises (in the form of in depth interview) to know their perspective of linkages of industry and enterprises as well as the main hurdles they face. The study teams also covered schools, coaching centers, private hospital/clinic, etc. to have an

idea of the rural urban linkage. These consultations and interviews were used to understand macro processes, policies and challenges.

It was decided to cover six towns; three each from two regions of South and North Bihar. Within each region three towns were selected on the basis of their size, location, main economy, level of economic development, proximity to rural centres and large urban centres. From the Southern part, three towns Patna (population 16.84 lakhs) and Biharsharif (2.97 lakhs) both class I towns and Hilsa (population 0.51 lakhs) a class II town have been purposively selected. On the other hand from North Bihar, Darbhanga (population 2.96 lakhs), a class-I town, Madhubani (population 0.76 lakhs) a class –II town and Jhanjharpur which is a class III town (with population 0.31 lakhs) have been selected. Patna is the centre for development in the state of Bihar and cannot be compared to any other town in the state. Biharsharif, located at a distance of around 80 km from Patna, is also a growing town and there are strong linkages between the two towns. Both the towns have some presence of manufacturing activities, although Biharsharif has witnessed a decline in its industrial activities over time. On the other hand Madhubani, Jhanjharpur and Darbhanga are market towns, especially Darbhanga is a trading hub and these towns are highly connected with each other as well as with the surrounding rural areas. Manufacturing activities present in these towns are very small-scale in nature, with the exception of some brick kilns near Madhubani town, which are registered as factories.

The two sets of towns in southern and northern region of Bihar belong to districts with very different urbanization rates. According to 2011 census data, the urbanization rate in Patna (43%) and Nalanda (15.9%) where our three selected towns Patna, Biharsharif and Hilsa fall are comparatively much more than Madhubani (3.6%) and Darbhanga (9.7%) districts (Madhubani, Jhanjharpur and Darbhanga towns belong to these two districts). The towns in North Bihar are situated across the Ganga river and are thus more difficult to access vis-à-vis

those in South Bihar. In addition, Biharsharif and Hilsa benefit from proximity to Patna, the largest metropolis in Bihar. A close look at towns in Southern and Northern Bihar would thus provide a glimpse into issues of different kinds.

Sampling Methodology

For the enterprise survey, lists of all the factories and shops/establishments were collected from two different sources. The list of enterprises (other than registered factories) was collected from Department of Industries, Government of Bihar (GOB) and the town-wise list of factories collected from Annual Survey of Industries 2014-15. In the business register the unit level information such as name of establishment, owner of establishment, locality, area in which the enterprise is located (rural or urban), registration number, are provided for the district. From the list of enterprises, the town level enterprises were segregated by looking at the address of each and every enterprise. Again all the enterprises were classified into 19 broad activity categories for each town (Table A2.1 in Annexure).

The stratification of the shops/establishments was done on the basis of broad groups of shops/establishments given in Table 2.1. Among each group proportionate sample has been drawn. The list of factories for selected towns was collected from Annual Survey of Industries for the year 2014-15. This list contained information regarding district name, unit name, industry code, address of the unit, total persons engaged and location of unit. From this list those units which are within 15 km distance from the sample towns were identified. From those selected units, the units proportionately were picked proportionately. However as the size of factories are much larger compared to

the average size of establishments, these were over-sampled as is the usual practice for Ministry of Statistics and Programme Implementation.[9]

During the first phase of the survey, the team faced difficulties in identifying the units by the address given either in business register or the ASI list. The reason might be that in many of the small enterprises the sign board was not there, some enterprises had shifted to other addresses, some enterprises had closed down in the interim period. It was interesting to find that some factories had changed their activities as well. Hence we have used the list of enterprises and factories collected from Business register or ASI list for sampling rather than surveying exactly the same enterprise. At the time of describing the activity of an enterprises as manufacturing, trading, other services, etc. it was observed that some units combined services and trading. For instance, there are enterprises which sell motor parts, pump sets, cycles/motorcycles, cycle tyre & parts, motorcycle parts, etc. and also provide repairing services for the same. Such enterprises have been categorized as Services and Trade units.

Using the above methodology, an enterprise survey of 907 units was conducted in the six sample towns of which 31 are factories. The number of enterprises surveyed in each town were: 314 in Patna, 151 in Biharsharif, 86 in Hilsa, 164 in Darbhanga, 106 in Mahubani and 86 in Jhanjharpur.

Section 3 Brief Overview of Sample Towns and Regional linkages

The sample towns for this study have been chosen in two clusters in South Bihar and North Bihar, respectively. Patna, the capital and the largest city in Bihar is located in South Bihar, i.e. South of the river Ganga. Two towns of different sizes which are not far from Patna have also been included in the sample for South

[9] This was done following consultations with a Deputy Director at Ministry of Statistics and Programme Implementation for sampling procedure.

Bihar, namely, Biharsharif and Hilsa. The North Bihar sample includes a major town of Darbhanga and nearby towns of Madhubani and Jhanjharpur. Patna is the largest city and is an outlier vis-à-vis the other towns; Darbhanga and Biharsharif are comparable while the smaller towns of Jhanjharpur and Hilsa are also comparable in size. North Bihar, comprising 21 districts, contributes about 42 percent of GSDP (Gross State Domestic Product) of the state, although its population share is 63 percent. It is also much less urbanized than South Bihar, with the level of urbanization only 7.7 percent in North Bihar, compared to 17.4 percent in South Bihar.

The regional disparity in Bihar, which is skewed favourably towards the South and particularly in favour of the capital city, is reflected in the per capita Gross District Domestic Product for 2011-12 at 2004-05 prices. The PCGDDP was Rs 63,063 for Patna, Rs 12,561 for Nalanda, Rs 10,932 for Darbhanga and a mere Rs 9,241 for Madhubani districts (Economic survey of Bihar 2015-16). The ranks according to PCGDDP for these districts were 1, 8, 19 and 33 respectively. The relative lack of prosperity in the Northern districts vis-a-vis the Southern districts is evident from these statistics.

Consumption patterns of Petrol, Diesel and Cooking Gas also throws light on the economic disparity among the districts. Based on data for average consumption levels of these products for 2013-14 and 2014-15, the shares of districts in total consumption, and their shares of population, the following criterion for assessing prosperity of a district can be applied. If the share of consumption is higher than that of population share, the district is identified as relatively prosperous. Based on this method, 3 most prosperous and most backward districts have been identified (Table 3.1). The deposits in small savings kept in post offices and Public Provident Fund across the districts has been used as another index of relative prosperity of the districts, where a higher percentage share of each districts vis-à-vis its population share indicates the

prosperity of the district[10]. By these measures, too, Patna and Nalanda are seen to be more prosperous than Darbhanga and Madhubani districts.

Table 3.1 Relatively prosperous and backward districts in Bihar

Criteria	Top 3 districts	Bottom 3 districts
GDDP	Patna, Munger, Begusarai	Sheohar, Supaul, Madhepura
Petrol	Patna, Muzaffarpur, Vaishali	Sitamarhi, Banka, Nawada
Diesel	Patna, Begusarai, Muzaffarpur	Madhubani, Sitamarhi, Darbhanga
LPG	Patna, Muzaffarpur, Vaishali	Araria, Katihar, Purnea
Small savings	Patna, Bhojpur, Nalanda	East Champaran, Purnea, Araria

Source: Economic Survey of Bihar, 2015-16

Further comparison is presented at the town-level related to demographic profile and availability of urban facilities for the six towns in Table A3.1 in the Annexure.

North Bihar

The district of Darbhanga forms a part of the north Bihar Plain, and is located at a distance of around 130 km from Patna, the capital city. Darbhanga has an agrarian economy with paddy and pulses being the main produce. It is a leading district in production of fish in Bihar. In addition, it is renowned for its production of *makhana* and mangoes.[11] According to an old saying *Paan* , *Maach* and *Makhan* (betel leaves, fish and lotus seed) is not found even in the paradise, so one should enjoy these things on earth so that there are no regrets later.[12] Madhubani and Darbhanga are among the leading fish-producing districts in the state and Madhubani is also an important producer of makhana. This region has

[10] Data from Economic Survey of Bihar 2015-16 and have not been presented here.
[11] Makhana is a local name for a local product like lotus seeds/gorgon nut grown in ponds.
[12] http://mithilacuisine.blogspot.in/2007_10_01_archive.html

acquired international renown for its Mithila paintings, also known as Madhubani paintings.

Darbhanga

Darbhanga town is densely populated, with a substantial slum population of around 16%. The average sex ratio at 902 compares favourably with many other sample towns. Muslim population has nearly 28% share. Literacy rates are fairly high. The city is known for its educational institutions, especially for higher education and is home to many colleges including Darbhanga medical college and hospital, Lalit Narayan Mithila University, Dental College, Law College, etc. The male work participation ratio (WPR) is comparable across other towns, but that for females is extremely low at 7%.

While Darbhanga is well-connected by road and rail, the infrastructural facilities in the city are deficient and are under pressure from the dense population. The road length is only 140 km. Drainage is open and there is approximately one electricity connection (domestic) for every two households. Industrial connections number only 139 vis-a-vis 6197 for Patna and 6836 for Biharsharif. While there are more commercial connections (3961), these are far short of Patna (35,292) and even Biharsharif (6217). Darbhanga is a destination for medical services and healthcare for nearby towns such as Madhubani and has an availability of 1030 hospital beds. But the strength of medical staff is inadequate. The city also acts as a destination for those aspiring for higher education.

Madhubani

Madhubani is a class-II town with a population of 75,736 and lies 26 km northeast of Darbhanga town. The average sex ratio at 899 is slightly on the lower side. Literacy rate at 74% is comparable to the national average and higher than the average for Bihar (63.8%). The male WPR is comparable across other towns, but that for females is extremely low at 9%. The share of agricultural

labour at 9% is higher than that in Patna and Darbhanga, showing greater rural linkages for Madhubani, but far below the smaller towns of Jhanjharpur and Hilsa.

Madhubani is a small-sized town, as evident from its road length of only 28 km (see Annexure), which is less than even that for Hilsa. Drainage is open and there is nearly a one-to-one correspondence between number of electricity connections (domestic) and number of households. In this respect, and in terms of commercial connection, it is much better placed than the smaller towns of Hilsa and Jhanjharpur. The number of allopathic doctors (in-position) at 19, indicates just 0.25 physicians per 1000 population, compared to 0.7 physicians as the national average[13]. Residents of Madhubani often travel to Darbhanga for education purposes and the schooling infrastructure in Madhubani needs much more strengthening.

Jhanjharpur

Jhanjharpur is located in Madhubani district. It is a very small town with a population of just 30,590. The average sex ratio is good at 921, the highest among the sample towns. Literacy rate at 61% is lower than not only the national average, but also the state average. The work participation rates are comparable across other sample towns. The very high ratio of agricultural labour in total workers, compared to most other towns in the sample shows the greater rural linkages of this small town which has a very low level of urbanization, and this high incidence of agricultural labour is comparable only to Hilsa, which is of a similar size. The share of cultivators, too, is relatively high.

With a road length of only 25 km, this small town also has little electrification, and there are only around 1554 domestic connections. Commercial and

[13] Worldbank website; data for 2012

industrial connections are negligible. There is a mix of open and closed drainage system. Health infrastructure is minimal.

Regional linkages observed in North Bihar

Interviews and focus group discussions yielded rich insights regarding the nature of linkages among the three sample towns. Darbhanga is the largest town in the Mithila region and both Madhubani and Jhanjharpur, as well as other towns in the area have close linkages with this town, and among each other. The town of Jhanjharpur and even Madhubani, are semi-rural in nature and have close connections with their rural hinterland. On the other hand, some of these towns have links with other urban areas in Bihar, notably Patna, and other national and international urban centres.

Overall, the survey team found that the rural landscape in Bihar is undergoing a transformation in terms of connectivity and availability of urban facilities. There were discernible footprints of urbanization (Box no. 1).

Box no. 5 Changing face of villages and linkages

The survey team visited Mahisham, a village covered in earlier IHD surveys to gauge the changes reaching the countryside and not just towns. To enter this village, one has to pass through Madhepura, a slightly bigger place and one of the team members, who had visited the area in 2009, was struck by the changes in Madhepura. There was a computer training centre, ATM, school, rampant construction of houses, studio, buses plying to Patna/Darbhanga, etc., shops selling mobiles, clothes, buckets, etc. Earlier the team would have had to leave the car in the circuit house in Madhepura and walk around 2 km to Mahisham. But during the present visit, the team took the car directly to Mahisham village and went to one of the 7 mohallahs /tolas there, named Linetola. This locality, comprising 90 households was so named since they were the first to get an electricity connection.

The village of Mahisham was very green and peaceful, with some farmers working in the fields and practically no one else around. Here it may be noted that throughout the journey the team had seen mostly women working in agriculture fields and also saw abundant mango production. It was learnt that the mango trees are leased out for a lump sum by the owner, who gets the money regardless of the amount of fruits produced. In Linetola, the team talked to two school girls in uniform, returning from school and followed the paved road inside the village. At that time they met a group of Muslim men coming from a nearby mosque, after *namaj*.

One of them was a teacher in a local school and also happened to be related to one of the two school-girls. He took the team along to his house which was pucca, quite big and very clean with a big yard where there were big trees and goats were tethered. A courtyard inside the house was also visible. The teacher informed the team that around 20 families out of the 90 in Linetola usually stay outside in Punjab, etc. to work as agriculture labour or in looms, etc. Some go locally to work in brick-kilns. People from nearby *tolas* also go to local towns to work as auto-rickshaw drivers, in tractors, etc. Weaving work was to be found in the Bombay-Bhiwandi belt and the villagers buy groceries from Madhepur. The villagers said that this village has a peaceful environment. The family also seemed to be happy that girls are now studying more.

Rural-urban linkages are evident in the market for vegetables as many people from nearby rural areas bring their own produce and sell in Darbhanga and there are many who source vegetables in other places and sell in Darbhanga town. There are similar linkages for selling makhana and fish. Prepared makhana is sold in Madhubani, Darbhanga, and sometimes even as far as in Patna by traders who transport the output there.

Darbhanga had educational and medical facilities since a long time, also due to the Darbhanga Maharaja's contribution, according to an FGD. With setting up of medical college in Darbhanga, good doctors, support staff, other infrastructure such as labs, living arrangements, medicine shops, etc. all developed soon. Darbhanga town has now become a destination for medical treatment in the region. At present there are many private nursing homes, doctors' private clinics, etc. in this town. People come here from Madhubani, Jhanjharpur, Samastipur, Seetamarhi, and some parts of Muzaffarpur, too. Even people from Terai region of Nepal come here for treatment.

Poorer people seek out the Government medical college hospital first and if there is no seat available, then go to private hospitals. With increased migration outside the state, some people are now taking family members to All India Institute of Medical Sciences, Safdarjung hospital, Ram Manohar Lohia hospital in Delhi and some take them to Patna.

Madhubani district was initially part of Darbhanga district, so in the early years most of the educational institutions were set up in Darbhanga, which can boast of institutions such as Mithila University, Darbhanga medical college and other Government schools. When Madhubani became a new district and became the district Head Quarters, then many primary schools opened there and generally education facilities for elementary education came up. Many children go to Madhubani town from surrounding villages in 20-25 km radius in buses to study.

But there is no opportunity for higher education and students go to Darbhanga or Muzaffarpur. Richer people go to Patna or Delhi.

Darbhanga not only has a university, but also good bookshops and coaching centres for engineering, medical, bank, railway, SSC, Army etc. exams. Another development is that many private schools, coaching centres or private engineering colleges, private institutions for B.Ed/MBA/BBA etc professional courses from Delhi, Haryana, Maharshastra, South Indian states, Rajasthan, Uttarakhand and even from Patna, open local centres in Darbhanga, Madhubani and other towns and train students to help them in getting admission.

There are transport linkages throughout the region. Since transport conditions are still poor from rural Madhubani to urban Madhubani, people depend on auto/jeep/*jugaad*. Due to the poor condition of village roads, villagers make fortnightly trips to town to buy essentials. Buses ply daily from Madhubani to Darbhanga, Patna, Jaynagar, Benipatti, Mauzaffarpur, etc. The drivers, conductors, garage mechanics, all mostly come from villages because life in town is costlier and they all return home in the evening. They live around 20-25 km away from Madhubani district Mukhyalay, living in villages off the main road.

Rural-urban links have deepened now because earlier schooling, buying grocery, etc. was done within the village, but people now increasingly travel to towns for these purposes. In the earlier days, saris, bedsheets, utensils, spices, cosmetics, etc. were sold by vendors within the village, who would come in the morning and go back to Madhubani town in the evening. Now vendors cart their wares on the roads in the town and villagers go there to buy these. Thus there is a lot of rural-urban link through transport activity now. Many people from rural areas are earning a living in Darbhanga, Madhubani and other towns. Their life history also indicates that they migrate to various urban centres for work, working as construction workers, rickshaw-pullers, masons, etc.

South Bihar

It is generally accepted that the present Patna stands on the site of the ancient metropolis of 'Pataliputra', the capital of Magadha empire, and was founded in 490 BCE by the king of Magadha. Pataliputra was a seat of learning and fine arts. The boundaries of the district remained more or less intact till 1972 when the subdivision of Biharsharif was separated and upgraded as the independent district of Nalanda.[14]

The district of Patna lies virtually in the heart of the South Bihar Plain. The City of Patna, besides being the headquarters of the district, is also the divisional headquarters and the State capital since 1911. A characteristic feature of the geography of Patna is the confluence of rivers. The resultant fertile land is good for cultivation of rice, and it is the main crop of the district, accounting for more than one third of gross area sown. Other important food grains grown are maize, pulses and wheat. Vegetables and sugarcane are also important products. Biharsharif is the chief town and the headquarters of the Nalanda district. Agriculture is the main source of occupation in Nalanda. The farmers mainly grow paddy, apart from it they grow potato, and onion. Hilsa town is also a part of Nalanda district.

Patna

The Patna Municipal Corporation area covers 99.45 sq km and is divided into 72 wards. It is a metropolis and has a designated regional development area that covers 234.70 sq km and includes outgrowths within Patna district – the Patna Urban Agglomeration (Danapur, Khagaul and Phulwarisharif) – Saran district and Vaishali district. Patna city is well connected by road, rail and air. NH 19, NH 83 and NH 98 pass through the municipal corporation limits.

[14] This entire section draws from several secondary data sources: District Census Handbook for Patna, Economic Survey of Bihar 2015-16, City Development Plan (SPUR), Wikipedia.

The slum population in Patna is around 4.6 % of the total population. The average sex ratio at 885 is the lowest among all the towns considered. Literacy rates are much higher than the state average of 71.82%. The city is a destination for people from all over the state for education and health facilities. The first university in Bihar, Patna University, was established in 1917 and is the seventh oldest university in South Asia. In the area of health, too, the city has been progressive as the Patna Medical College was established in 1925. Some newer institutions of higher education are the Central University, the IIT, NIFT, BITS, Chandragupta Maurya Management Institute and the Indira Gandhi Institute of Medical Sciences.

The male WPR is comparable across other towns, but that for females is extremely low at 7%. The average road length is 56 km per 100 sq km. Both open and closed drainage systems exist and there are approximately 38 electricity connections (domestic) for every 100 households. Industrial connections number 6197 for Patna and the number of commercial connections are 35292.

Biharsharif

Biharsharif town has a high population density and quite a sizeable slum population at around 7.2%. The average sex ratio at 915 compares favourably with many of the other sample towns, and may be due to the fact that many males have migrated out of the town, to other urban centres in India as well as in the Gulf countries.

Literacy rates are much higher than the state average of 71.82%, although the literacy rate for slum dwellers (64%) is much lower than the state average. The male WPR at 44% is comparable across other towns, but that for females is on the lower side. The share of household industry workers is relatively high for Biharsharif town vis-a-vis the other sample towns, and it is even higher for the

slums at 15%. Biharsharif has bidi-making, *agarbatti*-making, shoe making etc. as household industries.

Biharsharif is well-connected by road and rail, and is very close to Patna, at a distance of around 80 km. The road length is 112 km. Drainage is both open and closed. Approximately 75% households have electricity connection (domestic). Industrial connections number 6836 which is even higher than that for Patna (6197), keeping in mind that the data refer to 2011 and the situation might have changed by now. While there are 6217 commercial connections, this is far short of the corresponding numbers for Patna (35292). In terms of medical facilities available, Biharsharif is closer to Madhubani than to Darbhanga, although it has a population comparable to the Darbhanga. The social infrastructure of the town is also not very well-developed for higher education. Government schools have a strong presence at the primary, middle and secondary/higher secondary levels.

Hilsa

Hilsa is home to about 51 thousand people, around 20% of whom belong to the schedule caste communities. Literacy rates are high compared to state averages.

While WPR for males is similar to other sample towns, the WPR for females is relatively much higher at 17%. The close connection with rural areas may be responsible for this feature along with the features of high share of agricultural labour (34%) and relatively high share of cultivators. The even higher share of agricultural labour for slums at 40% indicates a closer rural-urban linkage for the slum population.

The slum population has a very high share (45%) belonging to the disadvantaged SC/ST communities and the average lower literacy (62% vis-à-vis 76% for Hilsa town as a total) reflects this. However, as in the other towns, the sex ratio for the slums is much higher than that for the town as a whole.

Regional linkages observed in South Bihar

The linkages observed for the region include linkages for construction workers who come daily from the rural areas to work in Patna and travel back in the evening. Construction has contributed in a major way to the growth story in Bihar. Construction workers regularly move from villages to towns in search of work. An FGD conducted at Gulzarbagh station, Patna, with several construction workers provided rich insight into rural-urban linkages in the area, and labour market functioning for this category of workers. A typical day for the construction workers is as follows. Travelling from Bakhtiyarpur, the workers gather at Patna Gulzarbagh station at around 7:30-8 am. Contractors try to grab work when prospective customers come. Most contractors quote similar rates so a lot of competition is there. The workers get paid daily by whoever employs them. If the contract is for a long period, then there may be weekly payment, but some due is left with the contractor, so that the labourer does not leave the work unfinished and leave, and the contract can be completed.

Patna is the centre for hundreds of retail and wholesale traders, and trucks come in daily bringing goods and goods are also taken elsewhere out of the city by trucks. Some labourers, when they do not get work in the evening, or during the day, fill in by doing loading/unloading work. In fact, many workers from rural areas juggle multiple livelihood options to survive in the city (see Box no. 2).

An FGD with labour contractors in Biharsharif provided insight into the process of hiring construction workers from the contactors' point of view. Construction workers usually seek work through a labour contractor, or they can approach an employer directly or they wait in designated spots to be picked up by employers. Construction work is easily available because Biharsharif is district headquarters. For the last 15-20 years, rural people have come and set up home here due to availability of school, electricity, health facility, etc. Workers also come from surrounding villages on cycle, jeep, train, *jugaad*, bus, train.

Box no. 2: Juggling multiple livelihood options: strategy for survival in the city

DI, 27, hails from village Athmalgola (Bad district) in Patna. He has passed class 10. DI belongs to Kahar community and stays in Punai chowk in Patna city with three friends from his own village. He pays a monthly rent of Rs 1500 and electricity charges of Rs 300. Earlier he has worked at an executive engineer's house since he was 11 years old, doing odd jobs such as taking the dog out, bringing milk, vegetables etc. But when he was around 18 years old, he was sacked for being impolite to his employers.

Next DI started working at Punai chowk *sabzi mandi* with a vegetable seller but got only Rs 2000 per month. Due to low income, he started his own business. He bought a rickshaw for Rs 5 thousand and now sells vegetables in this vehicle inside *gullis* in town. In the early morning he goes to Agam Kuan Krishi Utpadan Bazar Samiti and GPO and buys vegetables and later sells this in well-off localities in city, returns home at noon, eats lunch and again goes out at around 3-4 pm.

DI buys 30-40 kg vegetables and earns around Rs 200-250 daily. The job is difficult in summer and monsoon because vegetables are perishable. But he has many regular customers in apartments so usually he manages to sell. Sometimes he gets big orders for parties etc. when he also takes the rickshaw fare and Rs 50 own charge.

DI has called his younger brother to Patna and his brother works at the wholesale supplier of Sudha Milk in the morning (5-10 am) delivering house to house, for which he gets paid Rs 150 daily. He also brings milk from suppliers who reach Patna junction and reaches this milk to his owner. This milk sells as retail across the counter. He, too, earns around Rs 4-5 thousand per month.

Pubic construction work usually involves long hiring period and thus some families set up temporary homes at the construction site. Public construction usually has slow progress and relatively low pressure to complete, so that women workers, too, find work there. They get piece rate work which means that the entire family can get involved to finish the work quickly. Sometimes labour contractors hire labourers from far away villages at cheap rates or cheap labour from Jharkhand at Rs 150-180 daily. They also work for more than eight hours daily and many women workers come from Jharkhand.

Other regional linkages include sourcing various inputs from neighbouring areas. A cement dealer in Hilsa said that he sources cement from Patna, sand from Gaya, gravel or stone chips (*gitti*) from Koderma in Jharkhand, thus showing linkages of this small town with neighbouring as well as distant states. A timber merchant and furniture manufacturer in Hilsa reported that the timber in his shop comes mostly from and stone comes from Gujarat. He also said that skilled workers from rural areas near Hilsa town do not like to work in Hilsa. They prefer to travel by train to Patna to work there since they get paid higher rates. The linkages for Hilsa with Patna are thus much stronger than with Biharsharif, a town which is equi-distant. This is due to the array of livelihood opportunities Patna offers for people as well as due to the recently started railway services through Damiyana.

Section 4 Selected Findings from the enterprise survey

The pattern of distribution of enterprises by activity type across the six towns emerges more associated to their size than according to any distinct regional pattern of North Bihar and South Bihar (Table 4.1). Patna is the most important source of urban development in Bihar, and, according to some industry informants, the only source. Its distribution of enterprises is distinct from the other sample towns, with both manufacturing (37.6%) and trade (33.4%) dominating the activities, followed by other services (22%)[15]. Biharsharif and Darbhanga are similar in size and have trade as the dominant activity, followed by manufacturing and other services. In Darbhanga, the share of manufacturing is lower compared to Biharsharif, but there are some factories, of which there are none in the Biharsharif sample. Earlier there were many cold storage units in Biharsharif, and the city used to be classified with manufacturing as one of the main economic activities. A few years ago, the cold storage units were re-

[15] As noted in Chapter 2, some enterprises which combine service and trade activities, have been categorized as Service and Trade units. However, such enterprises are small in number.

classified as services since the units were just chilling and preserving fruits and vegetables, rather than being engaged in manufacturing a new product, and many of cold storage units have also closed down over the years.

Table 4.1: Distribution of enterprises in six towns by activity (number and percentages)

	Patna	Biharsharif	Hilsa	Darbhanga	Madhubani	Jhanjharpur
Manufacturing of which	**118**	**41**	**45**	**19**	**49**	**47**
-Factory	15	0	0	4	6	0
-Non factory	103	41	45	15	43	47
Trade/retail	**105**	**67**	**20**	**99**	**27**	**20**
Other services of which	**70**	**35**	**16**	**39**	**27**	**17**
-Factory	1	3	0	0	0	0
-Non factory	69	32	16	39	27	17
Services and Trade	**21**	**8**	**5**	**7**	**3**	**2**
-Factory	2	0	0	0	0	0
-Non factory	19	8	5	7	3	2
Total	**314**	**151**	**86**	**164**	**106**	**86**
Percentages						
		South Bihar			North Bihar	
	Patna	Biharsharif	Hilsa	Darbhanga	Madhubani	Jhanjharpur
Manufacturing of which	**37.6**	**27.2**	**52.3**	**11.6**	**46.2**	**54.7**
-Factory	4.8	0.0	0.0	2.4	5.7	0.0
-Non factory	32.8	27.2	52.3	9.1	40.6	54.7
Trade/retail	**33.4**	**44.4**	**23.3**	**60.4**	**25.5**	**23.3**
Other services of which	**22.3**	**23.2**	**18.6**	**23.8**	**25.5**	**19.8**
-Factory	0.3	2.0	0.0	0.0	0.0	0.0
-Non factory	22.0	21.2	18.6	23.8	25.5	19.8
Services and Trade	**6.7**	**5.3**	**5.8**	**4.3**	**2.8**	**2.3**
-Factory	0.6	0.0	0.0	0.0	0.0	0.0
-Non factory	6.1	5.3	5.8	4.3	2.8	2.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Hilsa, Madhubani and Jhanjharpur, all relatively smaller towns, have manufacturing as a dominant activity, but except for Madhubani for which the sample has six brick-kilns (located near the town) registered as factories, the rest is all small-scale manufacturing.

Table 4.1 shows that the factory component for manufacturing is zero for Hilsa and Jhanjharpur and 5.7% for Madhubani. The main manufacturing activities in Hilsa and Jhanjharpur are furniture making, timber products, making steel products like bins and agro processing. In Madhubani, too, these comprise the major manufacturing activities over and above brick kilns and food and beverages. It is important to note that none of the brick-kilns surveyed in Patna were registered under the Factories Act.

Trade/retail have the highest share of the economic activities in Darbhanga, and Biharsharif, and the second highest share for Patna. It is also important in Hilsa, Madhubani and Jhanjharpur, with around a quarter of surveyed enterprises engaged in these activities. The share of 'Other services', varies in a relatively narrow range of 18% to 25%, across the six towns. The share of services and trade are uniformly low across the towns. But combined with other services, the total of service related enterprise is close to 30% for most sample towns.

Distribution of Survey Enterprises

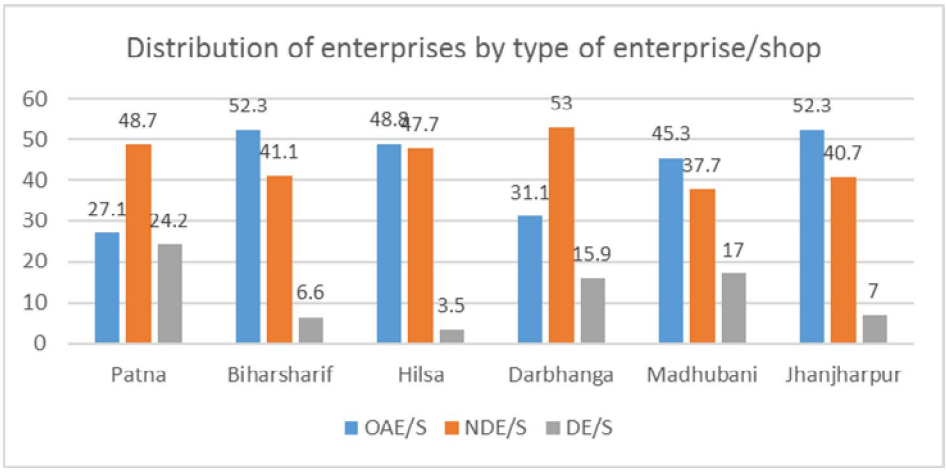
The fifth economic census (2005) indicates that the distribution by type of enterprises in urban Bihar is dominated by Own Account Enterprises with a share of 57.8 %, followed by Non Directory Enterprises with 38.7% share and Directory Enterprises with only 3.5 % share[16]. From the enterprise survey conducted ten

[16]An enterprise, which is run usually without the help of any hired worker employed on a fairly regular basis, is defined as an Own Account Enterprise (OAE). The DEs are enterprises which employ 6 or more workers (household and hired workers taken together) of whom at least one hired worker is employed on a fairly regular basis. The NDEs refer to enterprises which employ

years later in 2015 for the present study, the highest share is found for NDEs (46.1%), followed by OAEs (38.6%) and DEs (15.3%) (Table A4.1 in Annexure).

OAEs were found to have a high share in the smaller towns such as Hilsa, Madhubani and Jhanjharpur, as well as in a slightly larger town Biharsharif, all with above 45 % shares (Fig. 4.1). Patna and Darbhanga, on the other hand, had lower shares of OAEs at 27 % and 31 % respectively. The NDEs comprise the bulk of the enterprises surveyed in the larger towns of Patna and Darbhanga. Even in the other towns, they comprise a large share, higher than the 38.7% found in the 2005 survey. The share of DEs in the 2015 survey is found to be much higher than the 3.5 % for the 2005 economic census for five out of six towns and is particularly high at 24.2 % for Patna.

Fig. 4.1



less than 6 workers (household and hired workers taken together) of whom at least one hired worker is employed on a fairly regular basis.

Factory Sector

Thus Patna is the hub for investment in large enterprises in the state. Within the DEs in Patna, wood products, food and beverages, household industry & handicraft, transport relates sales & services, books, clothing, etc. have large shares. Madhubani has a 17% share of Directory Enterprises accounted for by nearby brick kilns, wood products, etc. and Darbhanga has nearly 16% share with food and beverages, medical services (including hospital/nursing home, medical hall/medicine shop/X ray) and transport related sales and services and miscellaneous (including petrol pump, cinema hall, cement/coal/gas dealer, brick kiln, real estate, etc.) accounting for a large share.

The factory sector comprised just 31 establishments in the overall sample size of 907 enterprises in the six towns, indicating the poor progress of industrialization in the state. As Table 4.1 showed, the factory sector is dominated by manufacturing units. The manufacturing units surveyed are engaged in making wooden products, steel products, medical, food and beverages, agro processing, hardware, brick kiln, etc. The units related to service include books, etc. All units are registered under the Factories Act, most of the factories provide accident-related benefits to the workers and most have first aid/medical emergency services available at the premises.

The factories do little out-sourcing of their work to other factories, and the little that is done is done locally. Very few receive some work from other factories and that, too, is local in nature. Laying off workers does not pose difficulty for the management as only two factories reported having to obtain prior permission from the Government to lay off workers, and majority of the units reported that they did not have to pay any compensation for laying off workers. But closing down the factory altogether is slightly more difficult, although even here only 9 out of 31 factories reported that they need prior permission from the

government to close down the factory. So thus workers' welfare is compromised by easy retrenchment, and exit policy is also not very binding for the management.

Among the 31 factories, majority (18) are in Patna, there are 6 brick-kilns in Madhubani, 4 factories including two flour mills in Darbhanga and three cold storage units in Biharsharif. The maximum number of hired workers are employed by biscuit factory, brick kilns, polytube factory, cold storage units, paints factory, steel making units, etc. The scope for absorbing unskilled workers is most in cold storage units and brick kilns. But in the former, the work is likely to involve a lot of casual labourers such as for loading/unloading, etc. which provides limited man-days of work. Brick-kiln work is also unlikely to be round the year, and as reported, some workers are brought in from outside the state as well, so that local labour is not always taken.

The high use of semi-skilled workers in polytube factory, some of the brick kilns and steel factories indicates increasing mechanization of processes which would reduce the scope of using unskilled workers. A visit to the polytube factory near Patna showed the high level of mechanization of the tube-making process. There was a very discipline workforce and relatively clean factory premises. Even the steel making units visited by the survey team had a high degree of mechanization as well as automation, showing the future direction of such manufacturing activities. On the other hand, the cold storage units, which do use the unskilled workers, are actually dwindling in number.

OAE Sector

The Own Account Enterprises form a substantial part of total sample enterprises at 38.6% share. These are enterprises that work with family labour and do not hire workers on a regular basis. Table 4.2 captures some basic characteristics of these enterprises. From a total of 352 enterprises, 151 enterprises (42.9% of

total) were engaged in trade/retail, 100 were engaged in manufacturing (28.4%) and the rest (101) were in the services sector (including those in combined service and trade) (28.7% in total). OAEs are engaged in a variety of activities, some of the important ones being cloth shop,

Table 4.2 Some basic characteristics of Own Account Enterprises

	Whether home based worker/s are working outside the home based enterprise	Whether home based worker/s are looking for work outside	Do you have periods of slack activity?	Have you expanded your business ?	
	Yes %	Yes %	Yes %	Yes %	Total
Bihar Sharif	10.0	16.3	80.0	20.0	80
Darbhanga	3.9	19.6	78.4	19.6	51
Hilsa	4.8	21.4	97.6	21.4	42
Jhanjharpur	8.9	13.3	91.1	26.7	45
Madhubani	12.2	32.7	91.8	18.4	49
Patna	17.6	28.2	70.6	31.8	85
Manufacturing	17.0	28.0	86.0	16.0	100
Trade/retail	7.9	18.5	84.8	26.5	151
Other Services	8.9	19.0	79.7	25.3	79
Services and Trade	4.5	31.8	63.6	31.8	22
Total	10.5	22.2	82.7	23.6	352

Source: Field Survey

wooden furniture making, shoe making, electric related enterprises, electronic related enterprises, grocery shops, bidi making, automobile services, printing press, grill making, agro-processing, bike services, books & stationery shop, etc. Despite the large numbers of own account enterprises in the sample ranging from 42 in Hilsa to 85 in Patna, their profitability is a little doubtful going by the fact that many family workers are either combining this activity with work

outside (10.5% of the surveyed OAEs) or are looking for outside work (22.2%). The highest shares of outside work and seeking outside work are for manufacturing OAEs.

A very high share of OAEs at 82.7% reported slack periods of business. This is especially high for manufacturing, as would be expected. On an average nearly a quarter of the surveyed own account enterprises reported having expanded business and this share is highest for Patna among all towns, in correspondence with the lowest share of enterprises reporting slack periods shown in Patna.

Size of enterprises in terms of number of workers employed

The size of enterprises, or firm size, for different types of enterprises is discussed below. By definition, NDEs employ up to 5 workers (own and hired together). Fig. 4.2 shows that the modal frequency for the total of 380 NDEs is for 3 workers and the next highest frequency is for 4 workers. For Directory enterprises, the number of workers can be quite high and varies in the sample of 139 Directory Enterprises from 6 to 346 workers employed in an enterprise. However, more than half (56%) of the Directory Enterprises surveyed had 12 workers or less, i.e. in the range of 6-12 workers (Fig. 4.3). It is interesting that the highest frequency (14 enterprises) is for 8 workers. If we consider the benchmark numbers for factories[17], then we see that 36% of the enterprises have below 10 workers and 66% of the enterprises have below 20 workers. Indian entrepreneurs allegedly tend to keep the size of their enterprises small so as to avoid coming into the formal network of the Factory Act, which involves various labour regulations, mandatory benefits to be given to workers as well as inspection, taxation, etc. The overall small size of the sample for DEs reflects this sort of situation.

[17]Factories refer to manufacturing activity being carried on with 10 or more workers with electricity or 20 or more workers working without the aid of electricity, with some exceptions such as mining, hotels and restaurants, etc.

Fig. 4.2

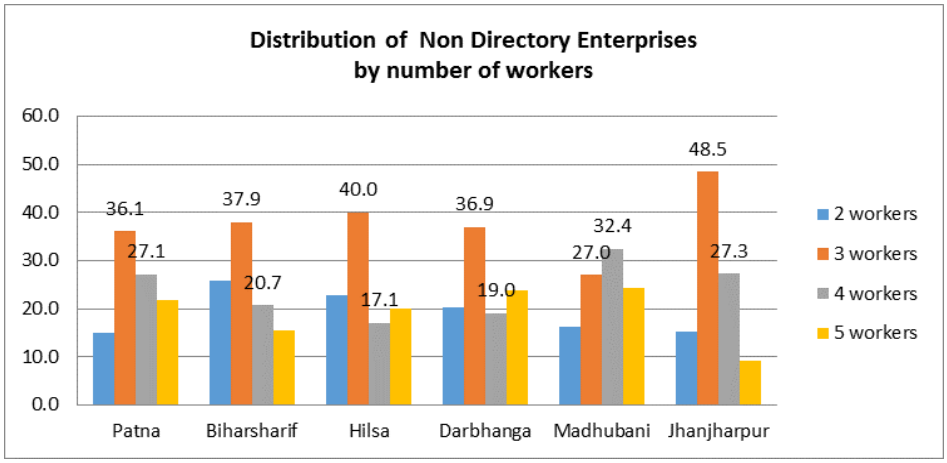
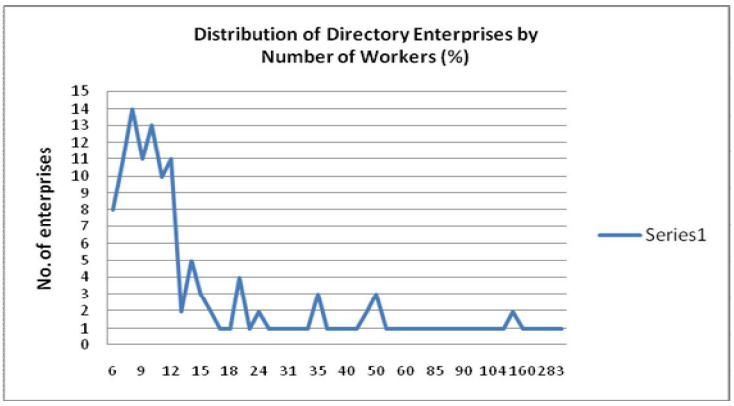

Distribution of Non Directory Enterprises by number of workers
60.0
50.0
40.0
30.0
20.0
10.0
0.0
36.1
27.1
37.9
20.7
40.0
17.1
36.9
19.0
27.0
32.4
48.5
27.3
Patna
Biharsharif
Hilsa
Darbhanga
Madhubani
Jhanjharpur
2 workers
3 workers
4 workers
5 workers

Fig. 4.3


Distribution of Directory Enterprises by Number of Workers (%)
No. of enterprises
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
6 9 12 15 18 24 31 35 40 50 60 85 90 104 160 283
Series1

Functioning of Urban Labour Markets

Hiring of different types of workers and working hours

The establishments, comprising DEs and NDEs, use both family workers and hired workers. Secondary data indicate that the percentage share of hired worker in total workers in enterprises in urban Bihar averaged at around 46.66% in 2013, down from 57.5 % in 2005. Compared to the Sixth Economic Census, the share of hired labour[18] in the present enterprise survey was found to be much higher as seen below, especially for Patna and Madhubani. The share was calculated as a weighted average of the shares for Directory Enterprises and Non Directory enterprises.

Table 4.3 Share of hired workers in the six sample towns

Town	Share of hired workers in total workers including family workers (%) (average)	Share of hired workers in total workers (%) (DEs)	Share of hired workers in total workers (%) (NDEs)
Patna	77.30	94.8	64.9
Biharsharif	66.77	95.0	59.2
Hilsa	60.48	69.1	58.3
Darbhanga	64.94	91.0	56.4
Madhubani	73.92	96.6	61.7
Jhanjharpur	66.22	88.3	60.0

Between the two types of establishments which hire workers, the Directory Enterprises use more hired workers compared to the NDEs, with the latter having a much larger share in the number of units in the total sample of

[18] Considering only adult hired labour; the share of child labour was found to be quite low at 0.5%.

enterprises. The share of family workers is relatively high for Hilsa, Darbhanga and Jhanjharpur which have fewer Directory Enterprises.

Among the hired workers, on an average (six towns taken together), nearly half of the workers are permanent, around 8.6% are temporary, 13.7% are casual hired, 7.8% are contract hired and 22.2% are working at piece rates. The town-wise picture varies considerably with Darbhanga showing an unusually high share of permanent workers at 77% of total hired workers. This is possibly explained by the fact that in this town, the sample establishments are dominated by trade and service units such as clothing, general stores, medical facilities (including medicine shops, x-ray facilities, nursing homes, hospitals, etc.).

On the other hand, Jhanjharpur and Hilsa show a high share for casual hired workers. These two relatively smaller towns have a lot of small-scale manufacturing in the area of wooden products, steel products, agro processing such as rice and *chura* mills, etc. which require more of casual labourers, both for Directory and Non Directory enterprises, but especially for the former. Patna is close to the sample average in terms of permanent workers, and shows incidence of workers of all types. In the Biharsharif sample, 54.1% are piece rate workers and the corresponding share for Madhubani is also quite high at 36.7%. The high shares are accounted for by the Directory Enterprises, which include Services, transport related sales & services, books/printing press, etc. for Biharsharif and brick kilns, wooden furniture, and transport related sales and services for Madhubani.

Working hours were found to be long with 75 percent enterprises reporting working hours of 9 hours and above daily, and more than half (55 percent) reporting working all days in a week while 43 percent reported working for 6 days in a week.

Rural-urban Linkages

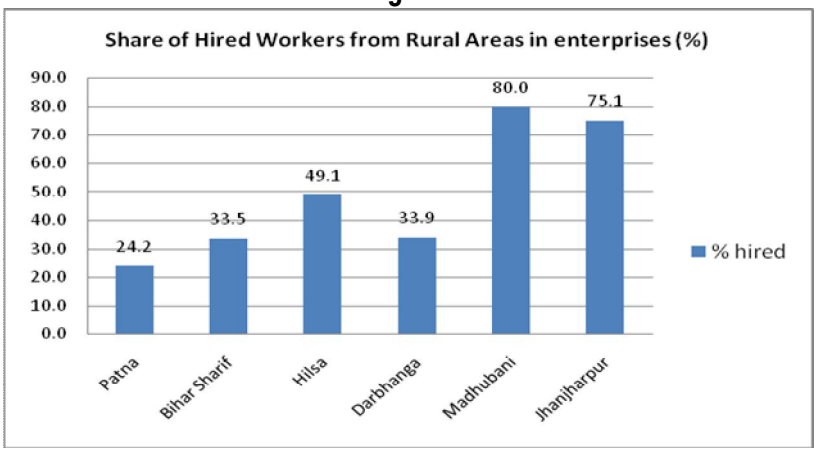
Hiring of Workers from Rural Areas: A total of 553 enterprises reported using hired workers, which is around 61% of the total number of survey enterprises. Out of these 530 enterprises provided detailed data on hired workers, among which 33.2% reported hiring workers from rural areas, usually along with workers from urban areas as well. This demonstrates fairly good linkages of the enterprises with the rural milieu. Of the 530 units that reported hiring workers, 376 are NDE or smaller units and the rest 154 DE units. The share of hired workers commuting from rural areas is particularly high for DEs at 53.9% vis-à-vis NDEs (24.7%). By activity, it is highest for manufacturing (41.5% of enterprises), followed by Services (including services & trade) (33%) and least for trade/retail enterprises (24%).

Of the 3728 adult workers hired for the survey enterprises, nearly half (45.5%) are found to be travelling from rural areas (Table 4.4). The share of rural workers for Directory enterprises is more than double that of non-directory enterprises. The town-wise picture in Fig. 4.4 shows that the smaller towns of Madhubani, Jhanjharpur, followed by Hilsa, have very high rural-urban linkage, which is not surprising since Jhanjharpur and Hilsa, in particular, are very small towns with close connection with surrounding villages. Patna, the largest urban agglomeration in the state of Bihar, has the weakest rural-urban linkages in the sense of rural workers coming in to work daily. Three-fourth of the workers here come from urban areas. But it is likely that people originally from rural areas have migrated here and have settled in Patna and in the peripheries. The same phenomenon is likely to have taken place in Biharsharif and Darbhanga, all towns with substantial slum population.

Table 4.4 Hired workers among enterprises and sample towns

	Hired adult worker (Current year) from			Percentage of hired worker from rural areas (%)
	Rural area	Urban area	Reporting units	
NDE/S	161	625	786	20.5
DE/S	1534	1408	2942	52.1
Total	1695	2033	3728	45.5
Patna	352	1102	1454	24.2
Biharsharif	80	159	239	33.5
Hilsa	56	58	114	49.1
Darbhanga	234	456	690	33.9
Madhubani	786	196	982	80.0
Jhanjharpur	187	62	249	75.1
Manufacturing	1267	675	1942	65.2
Trade/retail	138	540	678	20.4
Other Services	182	646	828	22.0
Services and Trade	108	172	280	38.6
Total	1695	2033	3728	45.5

Fig 4.4



Among the different enterprises by type of activity, manufacturing units clearly have a much sharper link with rural areas with 65.2% workers coming in from rural areas. The share of rural workers in total workers is much less at 20-22% for trade/retail and other services units.[19] However, it may also be recalled that with the exception of Patna, most towns are characterized by very small scale manufacturing and factories are located largely in Patna alone. Therefore these are unlikely to be a vehicle for industrialization in these towns, and thus unlikely to provide a very large pull factor for the rural labour in the hinterland. The type of enterprises hiring relatively more rural workers are: those making wooden products, miscellaneous activities including brick kilns, real estate, poultry, petrol pumps, dealers in cement, cinema halls, etc., transport related sales and services, cloth shops and tailors, food and beverage enterprises, electrical and electronics enterprises, steel products, household industries, etc.

Backward and Forward Linkages:

The rural-urban linkages are also manifested through forward linkages such as where the products of the enterprises are sold and backward linkages such as from where the raw materials/inputs of the enterprises are obtained. Manufacturing enterprises were found to exhibit the maximum rural-urban linkage in terms of input-output, since much of the raw materials in these units is procured locally from surrounding rural areas.

There was some evidence of backward linkage with rural areas, reflected in 14.6% of the enterprises reporting that they sourced their major input/intermediate product from rural areas within the district. Among the different types of activities, agro-processing activities have relatively higher share of sourcing of inputs from rural areas nearby. Urban areas within the

[19] The services and trade enterprises are relatively much smaller in number.

district was found to be the major sourcing spot for all types of enterprises, but Directory Enterprises showed relatively more sourcing from local rural areas vis-à-vis OAEs and NDEs. Similarly local urban sourcing is important for all the towns, but some variations were observed; in the smaller towns of Jhanjharpur, Madhubani and Hilsa, sourcing of inputs from local rural areas was found to be relatively more compared to a big city like Patna. Backward linkages were observed to be stronger for the factory sector vis-à-vis the non-factory sector.

Manufacturing units, especially food and beverages, household industry and handicraft, etc. exhibited stronger forward linkages, since these units have relatively more sales to local rural areas. Among trade/retail units, transport related sales/service enterprises and among Services, institutions reported more sales in rural areas.

Around 80% of the survey enterprises reported that rural customers come and buy their products. In Patna, this share was the least at 58.7%, and the corresponding share was much higher in the other towns ranging between 86-96%. On an average, these enterprises with rural customers sell 39-45% of their products/services to customers coming from nearby rural areas, indicating high rural-urban linkages.

Growth in urban output

The assessment of urban growth was based on the perception of the respondents in the enterprises which have been operating for the last three years. Of the 866 units which have been operating for the last 3 years or more, a sizeable share of 37.8% reported they were undergoing expansion (Table 4.5). But 29% of the units surveyed also reported that they were contracting. If those which have been stagnating and those undergoing contraction are clubbed, they account for a high share of around 62%, i.e. nearly two-thirds. Activity-wise, for all enterprises taken together, trade

Table 4.5 Status of growth in last 3 years of surveyed enterprises in six sample towns

	Expanding	Stagnant	Contracting	Total number
Manufacturing	32.8	33.4	33.8	308
Trade/retail	43.7	34.0	22.3	318
Other Services	34.3	31.3	34.3	198
Services and Trade	45.2	33.3	21.4	42
OAE/S	27.1	39.0	33.9	336
NDE/S	42.5	30.0	27.5	360
DE/S	48.8	28.2	22.9	170
Total	37.8	33.1	29.1	866

Units show the highest share of expansion (43.7%) and manufacturing shows least (32.8%), disregarding the Services and Trade units, which are relatively much smaller in number. If the two types of service enterprises are taken together, these come next to the trade/retail units in terms of growth. Only 27.1% Own Account Enterprises reported having experienced expansion. Almost 40% of the OAEs reported stagnation, much higher than the corresponding shares among the establishments.

Town-wise, an interesting picture emerges as more enterprises in Northern Bihar towns report more expansion compared to those in South Bihar. The percentage share of enterprises reporting expansion was 45.9% in Darbhanga, 52.4% in Jhanjharpur and 35.6% in Madhubani. By contrast, the shares of enterprises reporting expansion in Patna were 35.2%, followed by 33.6% in Biharsharif and just 26.3% in Hilsa.

Trade is the main driver of expansion across all towns: in Darbhanga, service units also experienced expansion, while the smaller town of Madhubani and

Jhanjharpur also showed expansion in manufacturing units. Jhanjharpur actually reported expansion in all types of units, albeit this sample was the smallest (alongside Hilsa) and the size of enterprises was also relatively small. The service enterprises showed most contraction in all towns, although in Patna, manufacturing enterprises along with services accounted for most contraction. In Biharsharif and Hilsa, too, manufacturing units showed contraction during the last three years.

Problems faced by the Enterprises

High price of raw materials, shortage of finance, shortage of raw materials, general infrastructure related problems, are important bottlenecks for all types of enterprises, according to the survey. For Directory Enterprises and Non Directory Enterprises, raw material price is the most important challenge, while for Own Account Enterprises, shortage of finance is the most pressing issue. Again, for DEs, labour availability is more of a challenge area compared to OAEs and both OAEs and NDEs cited electricity availability as a major hurdle to be tackled. Sales are a constraint for DEs, while corruption impacts the OAEs and NDEs relatively more.

Table 4.6 Most important problem faced by the enterprise/shop in recent times

	DE Rank	NDE Rank	OAE Rank
High Price of raw material	1	1	2
Shortage of finance	2	2	1
Shortage of raw material	3	4	3
Basic Amenities	4	5	5
Labour Availability	5	7	8
Sales Related Problem	6	9	9
Electricity Related Problem	7	3	4
Law and Order	8	10	10
Corruption	9	6	8
High Rent , Tax and Sale tax	10	7	6

Section 5 Concluding Remarks

The present study indicates that industrialization and urbanization in the state of Bihar is entirely Patna-centric. The share of urban population in the state is disproportionately borne by Class-I towns. Smaller towns and semi-rural areas exhibited signs of growth in terms of construction, more transport services, connectivity, availability of consumer goods, etc. but there is little evidence of sizeable industry coming up in a big way. The present study found evidence of transformation of villages and semi-rural areas in terms of more pucca housing, increasing urban amenities, transport services, etc. Infrastructure, which had earlier been a crucial bottleneck, have been mitigated to a great extent with improved road connectivity and electricity supply. Thus many of the conditions for accelerated industrialization seem to be present, but there are a few major gaps.

A factor impeding industrialization in Bihar is the rising land price throughout the state. There is a high demand for land in this densely populated state, leading to spiralling land prices. The high land price acts as a prohibitive factor for new investment in green-field industries. For instance, in Biharsharif, there has been a steady decline in the number of cold storage units and new units are difficult to start due to high land cost. Often it is more profitable to rent a piece of land out than to set up an industrial venture there.

According to entrepreneurs, apart from costly raw materials and shortages thereof, lack of stability in government policy, corruption, security in terms of law and order, etc. are important areas that still need attention. Availability of finance in a stream-lined manner is a very important area of challenge.

As mentioned, there has been remarkable improvement in road connectivity in the state, and the survey also found signs of an improved situation for supply of electricity. Smaller towns were found to have markets quite well connected to the national network where abundant supply of consumer goods such as biscuits, chips, beverages, bottled water, packaged noodles, detergents, etc. were available. But nowhere did the survey team find an overwhelming presence of locally produced goods. The supply network in the sample towns is connected far and wide with bigger towns in Bihar and with other urban centres in India.

Migration is a way of life, both in North and South Bihar, but more so in the towns in Northern Bihar. The thrust is not just from livelihood opportunities, but also from education and health related opportunities. In the smaller towns, while there is scope for work for agriculture wage labourers, and even some low-paid jobs for the less educated, there is hardly any opportunity for more educated people, with hardly any new industries creating new opportunities, prompting exodus to bigger cities.

Thus the urban development is taking place not in a pyramidal way, where the urban population is distributed with a wide base in smaller towns, feeding successively into bigger towns. It is taking place in a way that urbanization is concentrated in big cities, reflected in the nearly steady share of 57-59% of class I towns in the urban population in Bihar between the two census years 2001 and 2011. The rural-urban linkages, too, are not always between rural hinterland and nearest town, but is also between the villages and far away urban centres, including those outside the state and even outside India.

Overall, going by access to basic facilities as obtained from the household survey, sample towns in South Bihar fared better than those in North Bihar. But the findings from the enterprise survey did not reveal any clear regional pattern in distribution and structure of enterprises. In terms of analysis of entrepreneurial

activity, the pattern was linked more to the size of the town, rather than to a region.

Given the discussions around the distribution of the survey enterprises, their size and structure, the functioning of the urban labour markets, the rural-urban linkages and the problems faced by the survey enterprises as outlined in Section 4, some suggestions for a way forward are placed below. These have basis in the interviews of the entrepreneurs, discussions with Key Informants and conclusions drawn from the Enterprise survey. The findings based on primary surveys help to demarcate areas for policy action clearly and indicate practical measures based on the ground realities.

- There is need for a very large scale of investment in Bihar if industrialization is to be spread to different parts of the state. At present, the investment in industries has taken place mainly in and around Patna, and the scale of industrial activity in smaller towns is still very small. Trade is still the main driver for urban output and manufacturing, though important in the smaller towns, is characterized by very small scale and informality. Regional linkages as indicated by the present study would ensure the spread of growth impulses to neighbouring towns and rural areas.
- Manufacturing activities have the strongest rural-urban linkages and have the greatest potential to absorb surplus rural labour, and thus need to be encouraged with government investment and with incentives for private participation. The existing downturn and stagnation in manufacturing, as revealed by the enterprise survey, must thus be reversed as a part of industrial strategy.
- The process of industrialization provides an avenue for absorbing unskilled labour, but it also needs skilled labour. In order to retain skilled labour in the state, access to basic amenities such as education, health facilities, housing, etc. must be improved in the smaller towns. In this context, there is a need

to establish skill development/training facilities for workers, since some of the bigger enterprises indicated difficulty in recruiting skilled workers.

- The overwhelming concentration of urban population in Class-I cities needs to be contained and a more widespread urbanization aimed at with better populating the Class-II and Class-III towns. This can only happen with industrialization taking place in different parts of the state and absorbing labour via rural-urban linkages. This can counter distress-induced migration to some extent.
- Financial expansion and inclusion are areas that need urgent attention. Easier availability of capital is needed to give a boost to industrialization. It also appears that capacity-building is needed on the part of the bank officials for processing loans of large size. Simultaneously, screening procedure of loan applicants needs to be tightened to filter out the non-serious ones who do not intend to set up an industrial venture or repay the loan, but are only interested in availing of bank credit. A related suggestion is to lower the rate of interest so that capital is more affordable.
- Improvement in infrastructure notwithstanding, there is still much scope for investment in infrastructure, for instance, improving quality of electricity supply and not just expansion of electric connections. Improvement in the electricity situation is one the major suggestions put forward by the entrepreneurs.
- Governance issues, which affect the larger enterprises relatively more, must be addressed with urgency. These include removal of the corrupt practices that allegedly exist at every stage of setting up an enterprise and running it. The governance issues also include the aspect of policy planning. Stability in government policy regarding approval of projects, land allotment, loan approval, taxation structure, etc. is highly desirable.
- Urban government institutions, including those dealing with industries, urban planning, labour welfare, etc. need considerable strengthening, especially in smaller towns.

- In order to take advantage of the strong rural-urban linkages provided by the manufacturing activities and the ability to absorb relatively unskilled labour there, there is a need to set up heavy industries in the state to provide stable job opportunities to the locals. Detailed planning could be carried out for each town. For instance, among the sample towns, Biharsharif has a very productive rural hinterland with production of a variety of vegetables. Agro-processing industries such as making juice/pulp, etc. as well as frozen and packaged fruits & vegetables could be given a boost in the town because raw material would be cheaply available. This town, being in the Buddhist circuit, is already seeing expansion in service areas such as hotels and restaurants and this aspect of tourism should be promoted in this area. In addition, an urban corridor could be developed linking Biharsharif to Patna, along which industries could be developed. For another sample town, Madhubani, limited market poses a problem. For the makhana-based activity, the produce from the rural areas near the town must be linked to the entire supply chain involving raw makhana and refined 'Lawa' makhana by an organized (preferably Government) network, so that the farmers, many from mallah, machhuara communities, benefit more from the final profits and can escape perennial indebtedness. The terms of giving advances to such farmers would concomitantly have to improve. A similar planning could be undertaken for the pisciculture in the area. Similar government support is needed for the Mithila handicraft industry in Madhubani, along with linking up of the products for sale in local markets within-state as well as in markets outside the state. Of course, government support must eventually enhance competitiveness so that the industry can survive in the market without support. Reportedly, the North Bihar region, though with abundant fruit production, cannot often take advantage of the processed food market due to lack of chilling and storage facilities. Some fruits such as litchi have a very short shelf life. Mango, on the other hand, faces stiff competition from processing facilities (eg. For pickle-making) from

Andhra Pradesh. The Government can undertake the necessary investment in this area to give industry a boost.

- Finally, the enterprise survey showed negligible presence of women in the wage labour market. In the key informant interviews, though, women workers were mentioned in the context of Mithila handicraft in Madhubani, which had started out as a co-operative, and in the area of household-based industries. The low female participation in wage work needs to be rectified and ways must be explored such as job schemes targeting women in the area, skill development of women, etc. It is possible that expansion of education and healthcare facilities will give rise to more job opportunities for women.

ANNEXURE

Table A1.1 Sectoral Composition of GSDP at Constant (2004-05) Prices

No.	Sector		1999-00 to 2004-05	2005-06 to 2009-10	2010-11 to 2013-14
1	**Agriculture/Animal Husbandry**		**30.3**	**23.0**	**19.4**
2	**Forestry / Logging**		**2.2**	**2.7**	**1.5**
3	**Fishing**		**1.6**	**1.3**	**1.0**
4	**Mining/Quarrying**		**0.1**	**0.1**	**0.1**
	Sub-Total (Primary)		34.3	27.0	22.0
5	**Manufacturing**		**5.7**	**5.6**	**4.8**
	5.1	**Registered**	**1.4**	**1.4**	**1.8**
	5.2	**Un-registered**	**4.3**	**4.2**	**3.0**
6	**Construction**		**4.5**	**10.0**	**13.1**
7	**Electricity / Water Supply / Gas**		**1.4**	**1.4**	**1.3**
	Sub-Total (Secondary)		11.6	17.0	19.2
8	**Transport / Storage / Communication**		**6.4**	**6.9**	**8.4**
	8.1	**Railways**	**2.5**	**2.0**	**1.5**
	8.2	**Other Transport**	**2.6**	**2.6**	**2.7**
	8.3	**Storage**	**0.1**	**0.1**	**0.1**
	8.4	**Communication**	**1.3**	**2.2**	**4.1**
9	**Trade / Hotel / Restaurant**		**18.3**	**21.3**	**23.4**
	Sub-Total (8 and 9)		24.6	28.1	31.8
10	**Banking / Insurance**		**4.0**	**4.1**	**5.4**
11	**Real Estate/ Ownership of Dwelling/Business Services**		**4.7**	**5.5**	**5.2**
	Sub-Total (10 and 11)		8.7	9.7	10.7
12	**Public Administration**		**7.0**	**6.0**	**5.4**
13	**Other Services**		**13.6**	**12.1**	**10.8**
	Sub-Total (Tertiary)		54.0	55.9	58.8
	Total GSDP		100.0	100.0	100.0

Table A2.1: Group of Activity Identified

Activity Code	Description	Brief Description of Group Activity
1	Handloom/Cloth/Textile/Saree/Readymade garment/cut piece	Clothing
2	Tailors	Tailors
3	Wooden furniture and saw mill	Wood products
4	*Kirana*/Grocery/General stores/crockery/sports goods+ jewellery/gold/silver/watch+ optical	General Stores
5	Furniture (Steel)/Trunk house + Gate/grille making + Metal product	Steel products
6	Medical hall/medicine shop/X ray + Hospital/nursing home	Medical
7	Book and stationary stall + xerox/binding + printing press	Books
8	Hotel/Restaurants/Bakery/caterers +Ice/Ice cream factory + biscuit/*dalmut* factory + *paan*/tobacco/wine/tea shop	Food and beverages
9	Agro processing industries (oil, rice/*dal*/*besan*, *chura*, *atta*/flour)	Agro processing
10	Electrical/electronics	Electrical and Electronics
11	Cyber café/computer services/music store/CD/mobile sale & repair+ studio/videography	Computer/mobile services
12	Automobile/motor/auto showroom+ Auto repair & services/sales/garage/ cycle/motorcycle repair/rickshaw repair/spare parts/tyres + battery +engineering workshop + Transport services	Transport related sales and services
13	Hardware/agro parts/tractor/tiles	Hardware, tractor &tiles
14	Household industry/udyog+ *Bidi* making/Agarbati making/candle making+ handicraft/sikki grass products+ shoe/leather/rexine making	Household industry and handicraft
15	Painting/art product	Art and painting
16	Institution/coaching centre/NGOs/ad & marketing agency+ financial institutions	Institutions
17	Beauty parlour/saloon/hair cutting/gym + travel agency/courier services/security agency+tent house+dry cleaners	Services
18	Miscellaneous (petrol pump+ cinema hall+ cement/coal/gas dealer+brick kiln+real estate/concrete+ *gul* udyog+ seed/fertilizer/pesticide/kisan kendra and poultry)	Miscellaneous
19	Plastic product	Plastic

Table A3.1 Comparative Urban Facilities in Two Districts (Census 2011)

Variable	Darbhanga	Madhubani	Jhanjharpur	Biharsharif	Patna	Hilsa
Nearest City with Population of 1 Lakh and more Road Distance (in km)	72	72	50	75	56	42
Railway Station Name	yes	yes	Yes	Yes	Yes	Yes
Pucca Road Length (in kms.)	140	28	25	112	1821	32
Drainage System	Open	Open	Both open and closed	Both open and closed	Both open & closed	Both open & closed
Latrines-Pit (No)	0	0	500	0	90023	996
Latrines-Flush/Pour Flush (No)	29566	6829	1301	61075	20016	1406
Latrines-Service (No)	83	20	15	346	559	1
Latrines-Others (No)	9797	47		0	9	420
Electricity-Domestic Connection (No)	31500	12050	1554	37110	112904	1856
Electricity-Industrial Connection (No)	139	45	67	6836	6197	
Electricity-Commercial Connection (No)	3961	358	218	6217	35292	142
Total household in the town	56492	13583	5904	48641	294631	8681

Source: Town Directory, Census of India, 2011

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Table A4.1 Number and Share (%) of types of enterprises in sample towns

		Bihar Sharif	Patna	Hilsa	Jhanjharpur	Madhubani	Darbhanga	Total
Type of enterprise/shop	OAE/S	52.3	27.1	48.8	52.3	45.3	31.1	38.6
	NDE/S	41.1	48.7	47.7	40.7	37.7	53.0	46.1
	DE/S	6.6	24.2	3.5	7.0	17.0	15.9	15.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
		Bihar Sharif	Darbhanga	Hilsa	Jhanjharpur	Madhubani	Patna	Total
Type of enterprise/shop	OAE/S	79	51	42	45	48	85	350
	NDE/S	62	87	41	35	40	153	418
	DE/S	10	26	3	6	18	76	139
	Total	151	164	86	86	106	314	907

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