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Economic Growth and Human Development in Bihar

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I. Introduction

For many developing countries like India, human development ‘causing’ faster economic growth rather than being one of its consequences could indeed be an important development strategy. Under this strategy, it is possible for developing countries to change their comparative advantage from low-skill labour intensive goods and services to more skill-intensive goods and services through the deliberate expansion of human resource development. As a logical extension of this possibility, the strategy also emphasises the necessity of favouring human resource investment ‘beyond’ what would be made under normal course. Unfortunately, in spite of the strong messages sent by the UNDP through its annual reports regarding the urgency of human development, many countries, including India, have remained unresponsive to the challenge. Presently, India is ranked 126 among the 177 countries in the world with respect to its human development level and it is one of those countries whose per capita income (PCI) ranking at 117 is superior to its HDI ranking. India’s HDI value was 0.439 in 1980, rising to 0.515 in 1990 and then to 0.611 in 2004 (UNDP, 2006). The decadal growth has thus been slower in the reform period since the nineties than in the pre-reform period of the eighties. India is thus characterised by the latest Human Development Report as one of those countries where, in spite of the visible success of globalisation, the creation of wealth has not resulted in commensurate human development, the progress being particularly limited in health dimensions.

Besides the low level of human development, India is also characterised by considerable difference in human development for various sections of its people, depending on the geographical regions they come from, whether living in rural or urban locations, gender of a person and finally, the social group (scheduled castes/tribes and others) that the person belongs to. An analysis of the trend of human development in India at an ‘aggregated’ level can, therefore, be highly misleading. The multiple and often inter-locking layers of inequalities that keep the disadvantaged people vulnerable, not merely during their lives but even inter-generationally, manifest themselves in varying ways for different sections of the population, underlining the necessity for analyses at various levels of desegregation. Towards such a disaggregated analysis, among others, one could attempt a regional analysis, taking each state separately as its focus. For one, India is an extremely large country and thus regional variations are very likely; secondly, the state boundaries generally correspond to some broad socio-cultural boundaries too, the latter

having important bearings on human development; and finally, within the federal dimensions of the Indian constitution, most of the issues of human development are primarily the concerns of the state-level governments and there is some autonomy for the state governments, albeit limited, to take independent initiatives to promote human development in their respective areas. The present exercise is one such attempt for the state of Bihar.

At the outset, it might be noted that, among the major Indian states, Bihar is the most backward one, both economically and socially. Whatever indicator one may choose to indicate the comparative development levels of different states, Bihar will appear either at or close to the bottom of the rankings. Consequently, an analysis of the relation between economic growth and human development in the context of Bihar, instead of asking why the former has not led to the latter, should preferably probe how human development proceeds when economic growth is very slow. Indeed, such a mode of analysis is probably relevant for all the low-income states of India which have also generally experienced a deceleration in their growth rates during the nineties. Admittedly, apart from the growth-mediated human developments, it could also be enhanced by governmental efforts through public expenditure on health and education; but thanks to the particularly weakening public finances in the poorer states of India, this contribution too has been limited. Under such circumstances where economic growth is very slow and the government intervention is rather limited, as in Bihar and most other low-income Indian states, an analysis of human development may not only indicate their existing levels and trends in a region, but also locate some 'social' factors that had either compensated for the weak economic impetus for human development or had actually reinforced it.

Towards this broad objective, after these prefatory observations, the paper presents an overview of the 'Trend of Economic Growth' in Bihar during the eighties and since the nineties, along with its structural and employment implications (Section II). The 'Issues of Human Development', the key focus of the study, is then discussed, first using the state-wise Human Development Indices prepared by the Planning Commission, and then in detail regarding three of its crucial components — poverty, education and health (Section III). Although it does not enter as a component in the estimation of HDI, social empowerment is a critical dimension of human development and Bihar has experienced certain major developments in this arena in the recent

past. An analysis of this socio-political phenomenon is also a part of this section. The challenge of promoting human development, as would be evident from the analysis, has remained largely unattended in Bihar. For the resulting disadvantage to be overcome, one needs policy initiatives at several levels and some suggestions towards such desired initiatives are presented in concluding part of the paper (Section IV), along with highlighting its major observations and findings.

II. Trends in Economic Growth

Notwithstanding the constitutional provisions of federalism in India, allocating different social and economic sectors between the central and state governments and elaborate guidelines regarding fiscal dimensions of federalism, the ‘core’ of the development strategies in India have always been decided at the central level, mainly through the sectoral allocation of resources, the regional allocations being only a by-product of this exercise. This is so because, within the structure of fiscal federalism, the central (state) government mobilises more (less) resources than it needs for its direct needs, leaving the central government with a surplus, a substantial part of which is spent/distributed using its own ‘discretions’. In this framework, the regional-level state governments have only limited ‘autonomy’ and it is, therefore, not surprising that the regions that were poor (rich) earlier are also the ones that continue to be poor (rich) today. The evidence on inter-regional disparity in India clearly demonstrates that not only the different regions in India have ‘diverged’ vis-à-vis their income status since at least the early seventies, but the process has become faster since the mid-eighties (Dasgupta et al, 2000). If the state-level governments had indeed any autonomy, at least some of the states would have exercised it to their advantage to break away from the historical trend.

Aggregate and Sectoral Growth Rates

It is very rational to treat the above observation on overall national development pattern as the reference point for an analysis of the regional developments in Bihar. Taking the last two-and-a-half decades into account, it might be observed that the composition of the group of low-income states in India has remained unaltered during the beginning of eighties through the middle of the current decade, with Bihar being at the bottom (Table 1). Certain changes are, however, observed in the relative ranking of the states within each group of high, middle or low-income states. For example, among the middle-income states, Kerala has experienced high economic growth rates,

Table 1 : Per Capita GSDP of Major Indian States

States	Annual average for 1980-81 to 1982-83		Annual average for 1990-91 to 1992-93		Annual average for 2003-04 to 2005-06	
	Amount (Rs.)	Percentage of India	Amount (Rs.)	Percentage of India	Amount (Rs.)	Percentage of India
Punjab	3174 (1)	178.7	4286 (1)	179.1	33022 (3)	142.3
Haryana	2705 (2)	152.3	3843 (3)	160.6	35128 (1)	151.4
Maharashtra	2695 (3)	151.7	3931 (2)	164.3	33277 (2)	143.4
Gujarat	2280 (4)	128.4	3118 (4)	130.3	30182 (4)	130.1
West Bengal	1871 (5)	105.3	2448 (9)	102.3	22850 (9)	98.5
Tamil Nadu	1743 (6)	98.1	2579 (5)	107.8	27027 (6)	116.7
Karnataka	1739 (7)	97.9	2462 (7)	102.9	24002 (7)	103.5
Kerala	1683 (8)	94.8	2158 (6)	90.2	28059 (5)	120.9
Andhra Pradesh	1673 (9)	94.2	2312 (8)	96.6	23994 (8)	103.4
Madhya Pradesh	1529 (10)	86.1	1882 (11)	78.6	14829 (13)	63.9
Assam	1485 (11)	83.6	1719 (12)	71.8	17037 (11)	73.4
Uttar Pradesh	1449 (12)	81.6	1833 (13)	76.6	12151 (14)	52.4
Rajasthan	1416 (13)	79.7	2129 (10)	89.0	17122 (10)	73.8
Orissa	1371 (14)	77.2	1639 (14)	68.5	15952 (12)	68.8
Bihar	1080 (15)	60.8	1291 (15)	53.9	7418 (15)	32.0
India	1776	100.0	2393	100.0	23199	100.0

Note : Figures for (1980-81 to 1982-83) and (1990-91 to 1992-93) are in 1980-81 prices. The figures for (2003-04 to 2005-06) are in current prices and presents NSDP

both during the pre and post-reform period, raising its rank substantially. A similar improvement in the relative ranks is also observed for the economy of Rajasthan. Bihar, however, has remained at the bottom of this ranking throughout the period under consideration. If one compares the growth rate of the national and Bihar economy separately for the eighties (1980-81 to 1989-90) and the period since the nineties (1993-94 to 2004-05) (Table 2), it first emerges that the latter has been growing at a slower rate during both the periods. The most distressing part of this trend is

Table 2 : Growth rates of Aggregate, Sectoral and Per Capita Income during Eighties and Nineties — Bihar and India

	Bihar	India
A. Gross State Domestic Product		
(a) 1980-81 to 1989-90	4.66	5.55
(b) 1993-94 to 2004-05	3.29	6.38
B. GSDP from Agriculture		
(a) 1980-81 to 1989-90	2.21	3.38
(b) 1993-94 to 2004-05	3.01	2.91
C. GSDP from Non-Agriculture		
(a) 1980-81 to 1989-90	6.32	6.61
(b) 1993-94 to 2004-05	4.09	7.81
D. GSDP (Per Capita)		
(a) 1980-81 to 1989-90	2.45	3.32
(b) 1993-94 to 2004-05	0.79	4.39

Source : EPW Research Foundation (2003) for the pre-reform period. Economic Survey (2007-08) for India and Bihar for the post-reform period

that, during the post-reform era since the nineties, the economic growth rate of Bihar has been barely 3.29 percent, just above the population growth rate, resulting in a growth rate of barely 0.79 percent of Per Capita Income. In the previous decade, it had broadly followed the national trend — a moderate growth rate of the non-agricultural sector, accompanied by an agricultural growth rate of 2.21 percent, the two together resulting in an overall growth performance which was inferior to the national average, but not strikingly so. While the difference between the growth rates of Bihar and national economy was only 0.89 percentage points during the pre-reform period of the eighties, it had become 3.09 percentage points during the post-reform period. Indeed, the growth rate of the Bihar economy during the post-reform era was the lowest of any of the regions of India in any of the decades. Clearly, the sharp deterioration was caused by the performance of the non-agricultural sector and this is very likely the consequence of the strategy of liberalisation introduced during the nineties. A substantial part of the industries in erstwhile Bihar were located in the mineral-rich Jharkhand region which now forms a separate state. Thus, in the present state of Bihar, the industrial sector is very small and the non-agricultural sector comprises mostly the tertiary activities. The growth rate of this non-agricultural economy of

Bihar had been halved during the post-reform period; for the national economy, the rate had indeed increased, albeit marginally. The main source of sustenance of Bihar's economy during the post-reform period was an accelerated growth rate of its agriculture at 3.01 percent and this was the first time since independence that the agricultural growth rate in Bihar had exceeded that of its population. This growth was essentially the consequence of an expansion of irrigation facilities. As indicated by the unpublished official data of the state government, for the gross sown area, the irrigation coverage had increased from 39.6 percent during the beginning of eighties to 48.3 percent at the end of the decade and by the end of the nineties it had increased further to 57.2 percent. Interestingly, this expansion of irrigation facilities was caused not by public investment in the sector, but by private investment. The increase in gross area irrigated during the two decades was entirely through the expansion of tube well irrigation which is invariably by private investment. The resulting moderate growth of the agricultural sector in the face of a retarded growth of the non-agricultural sector was probably the only defence that Bihar was able to arrange against its development crisis in the post-reform period.

Since the difference between the growth rate of Bihar and Indian economy was wider in the post-reform period, one may enquire the specific sub-sectors of the non-agricultural sector where this difference was larger (Table 3). Mining was the only sub-sector for which the growth rate in Bihar was substantially higher than for the national economy, but this is a very small sector in Bihar. Two other sub-sectors where the regional and national growth rates are nearly equal are construction and trade-hotel-restaurants. Of these two, the growth rate in construction is rather surprising, but presumably it is related to such activities in smaller towns, a consequence of additional agricultural income being used for the activity. The sub-sector which is most disadvantaged in Bihar is manufacturing, particularly the organised component of it. It is interesting to note that for many of the sub-sectors in the tertiary sector (like trade-hotels-restaurants, railways, communication and banking-insurance), the difference between the growth rates of Bihar and national economy is relatively smaller. In particular, one may note that even in a poor region like Bihar, the growth rate of communication sub-sector is as high as 14.13 percent. It thus appears that, under the forces of liberalisation, the integration of the overall national economy is most visible in the tertiary sector, the primary and secondary sectors remaining almost unaffected.

Table 3 : Sectoral Growth Rates in the Post-Reform Period – Bihar and India (1993-94 to 2004-05)

Sectors	Bihar	India	Bihar's Growth Rate as percentage of India's
Agriculture and Related Sectors	3.01	2.91	106.1
Mining and Quarrying	6.75	5.00	135.0
Manufacturing	2.86	7.12	40.2
(a) Registered	2.32	8.02	28.9
(b) Unregistered	3.55	5.51	64.4
Electricity, Water and Gas	3.24	5.10	63.5
Construction	7.01	6.70	104.6
Trade, Hotel and Restaurant	8.53	8.57	99.5
Transport, Storage, Communication	5.69	10.79	52.7
(a) Railways	4.50	5.18	86.9
(b) Other Transport and Storage	3.29	7.49	43.9
(c) Communication	14.13	21.24	66.6
Finances / Real Estate / Business Services	4.25	7.63	55.7
(a) Banking and Insurance	6.14	8.93	68.8
(b) Real Estate and Business	3.18	6.85	46.4
Community, Social, Personal Services	3.50	6.61	53.0

Source : Economic Survey (2007-08) of India and Bihar

Among several negative structural features of the Indian economy, its duality between the agricultural and non-agricultural sector stands out as very critical, both in the context of growth performance and human development. During the entire post-independence period (1950-2000), this duality has indeed been reinforced in India for two reasons — first, during this period, the agricultural economy had grown at a rate approximately half of that for its non-agricultural counterpart and, secondly, the transfer of population from the agricultural to non-agricultural sector during this long period has been only marginal. Such slower growth of output of the agricultural sector, unaccompanied by any migration of workers from the rural areas, obviously weakens the ‘natural’ distributive mechanism in the economy and thereby deepens its structural weakness. We have computed a simple ‘Index of Duality’ for the national and Bihar economy for three years — 1980-81, 1990-91, and 2000-01 — to identify the trend in this structural weakness

(Table 4). It clearly emerges from these computations that the Bihar economy, in spite of being the poorest among the different regional economies, is more dual than the national economy. Secondly, although the intensification of economic duality has proceeded all along in the entire Indian economy, the process was a little faster in Bihar. During the eighties, the process was faster in Bihar because of a larger difference between the agricultural and non-agricultural growth rates in Bihar than in India as whole; during the post-reform periods, however, it was basically because of a shift of part of the agricultural workforce to the non-agricultural sector for India as a whole, with no such shift being observed in Bihar. Whatever be the trend, it is well known that

Table 4 : Index of Duality of Economy of Bihar and India

State/Year	Agriculture		Non-Agriculture		Index of Duality
	Percentage Share in		Percentage share in		
	Output	Workforce	Output	Workforce	
Bihar					
1980-81	48.0	79.1	52.0	20.9	4.06
1990-91	40.6	78.0	59.4	22.0	5.19
2000-01	37.5	77.0	62.5	23.0	5.55
India					
1980-81	35.7	66.5	64.3	33.5	3.56
1990-91	32.1	67.0	67.9	33.0	4.29
2000-01	24.3	61.4	75.7	38.6	4.90

Source : EPW Research Foundation (2003), Economic Survey, 2006-07 and Census Report of 1981, 1991 and 2001

without breaking its duality a steady growth momentum for an overwhelmingly agricultural economy is not possible, and one must also note here that its negative impact on human development patterns is no less serious. The economic distance between the agricultural and non-agricultural sector gets easily translated into 'social' distance between the rural and urban people and, as shown later in this paper, this social distance is very large in both Bihar and India.

Employment Scenario

For the economic growth to have any impact on human development in general or on any of its components, it is very necessary that a substantial part of the benefits of growth accrues to the

poorer sections of the population. The most ‘natural’ mechanism for such accrual of benefit to the poor is the additional employment that the heightened production activities entail, with or without increase in wages. The contribution of the growth process towards human development is largely mediated through these employment opportunities. Unsurprisingly, as in the case of aggregate and sectoral growth rates or the structural changes of the economy, here again the broad trends in Bihar during the pre and post-reform periods have been noticeably different (Table 5).

Table 5 : Growth Rate of Employment in Bihar and India

Area	Period	Bihar	India
Rural	1983 to 1993-94	1.09	2.31
	1993-94 to 1999-00	1.86	0.85
	1999-00 to 2004-05	1.53	1.40
Urban	1983 to 1993-94	1.09	3.65
	1993-94 to 1999-00	3.01	2.46
	1999-00 to 2004-05	2.31	3.25
Combined	1983 to 1993-94	1.09	2.61
	1993-94 to 1999-00	1.92	1.25
	1999-00 to 2004-05	1.66	1.87

Source : Planning Commission (2002)

Consider, for example, the decade of eighties when the aggregate employment, taking both rural and urban components, had grown in India at a decent rate of 2.61 percent, mainly because of the expansion in urban employment at an annual rate of 3.65 percent. It is somewhat surprising that during the same period, in spite of a none-too-low growth rate of its agricultural and non-agricultural economy, their impact on the employment was too limited in Bihar — the annual growth rate of employment in both rural and urban areas being only 1.09 percent. When one moves to the decade of nineties, a clear deceleration in the growth rate of employment is observed in Indian economy as a whole. In the rural areas, the growth rate of employment had come down from 2.31 to 0.85 percent and in the urban areas, from 3.65 to 2.46 percent. In contrast, the trend has been exactly opposite in Bihar — the growth rate of rural employment rising from 1.09 to 1.86 percent and urban employment from 1.09 to 3.01 percent. Finally, when one considers the growth of employment during the first half of the present decade, it is observed that for India as a whole the employment scenario which had deteriorated during the nineties had improved in

recent years. Compared to the nineties, the increases in the growth rates of employment were — from 0.85 to 1.40 percent (rural), from 2.46 to 3.25 percent (urban) and from 1.25 to 1.87 percent (combined). These increased growth rates were, however, still below the growth rate of labour force in rural areas where the problem of unemployment is more acute. The growth of employment in Bihar during the recent years, however, has been again dismal. The growth rate of employment during 1999-00 to 2004-05 in Bihar is not only lower than India as a whole, but it was lower than in the nineties. For example, in the rural areas, the growth rate of employment in Bihar was only 1.53 percent, compared to a higher growth rate of 1.86 percent during the nineties. Whether one takes into account the national or Bihar economy, a relation between the growth rates of output and employment is found to be rather weak not only in the rural areas where the extent of under-employment is very wide, but even in the urban areas as well. But the mismatch between the two phenomena is more visible in Bihar. Consider, for example, that the agricultural sector had grown at more than 2 percent during the eighties in Bihar, but the growth rates of rural employment has been barely 1.09 percent during the period. In the later period, the agricultural growth rate was only moderately higher, but the rural employment growth rate had increased significantly from 1.09 percent to a much higher 1.86 percent. It appears that whereas the output growth during the eighties was accompanied by reduced underemployment of workers already in agriculture; the continuation of growth momentum during the nineties had finally caused additional employment opportunities in the sector. In the non-agricultural sector, the mismatch is even more — a drop in the growth rate of its output during the nineties (from 6.32 to 4.15 percent) is accompanied by an increase in the growth rate of urban employment (1.09 to 3.01 percent). This again defies an easy explanation, except in terms of a sharp rise in low-wage unorganised sector employment in the face of a retarded growth rate of the non-agricultural sector.

From the growth rate of rural and urban employment in Bihar and India which have varied considerably over the years since the beginning of eighties (Table 5), it is clearly observed that the growth rates have never crossed the growth rate of labour force in rural areas and, even after the contribution of relatively faster growth of urban employment, the overall growth rate of employment has been lower than that of labour force at least since the nineties. The obvious consequence of this low growth of employment is higher unemployment rates. The

unemployment rates based on Current Daily Status (CDS) estimated in various rounds of NSSO clearly indicate this trend (Table 6). Between 1993-94 and 2004-05, the unemployment rates in Bihar have increased from 5.8 to 6.8 percent (rural) and from 9.8 to 10.0 percent (urban). For India, one observes a similar increasing trend.

Table 6 : Unemployment Rates by Current Daily Status (CDS) in Bihar and India

	Rural	Urban	Combined
India			
1993-94	5.6	7.4	6.0
1999-00	7.1	7.7	7.3
2004-05	8.2	8.3	8.2
Bihar			
1993-94	5.8	9.8	6.3
1999-00	6.5	8.0	6.9
2004-05	6.8	10.0	7.1

Source : Various rounds of NSSO

Apart from the overall trend of employment in rural and urban areas, the four NSSO surveys on employment and unemployment during the eighties and nineties have also indicated some increase in rural non-farm employment as an important emerging trend in rural employment patterns (Table 7). With an overwhelming majority of the population still living in rural areas, the trend in rural employment patterns is obviously more relevant in judging the employment outcomes of the growth process. If we analyse the distributions of rural male workers among three broad sectors -- primary, secondary and tertiary, it is observed that increasing rural non-farm employment is probably a marginal phenomenon in Bihar. During this period, the share of non-farm employment for rural males has increased by a mere 2.3 percentage points, from 18.8 in 1983 to 21.1 percent in 2004-05. In case of rural female workers, the increase in the share of rural non-farm employment is only marginally higher at 3.9 percentage points. The agricultural sector in Bihar, as mentioned before, had a growth rate above 2 percent during both the eighties and nineties, but it was not high enough to cause a 'diversification' of the rural economy and a much higher growth of non-farm employment, a phenomenon observed in those states whose agricultural economies had experienced high growth rates (say, above 3 percent) for a reasonably

long period. With a lower growth rate, such a diversification was not visible in Bihar, although a little expansion in rural non-farm employment had occurred within the existing production structure during the post-reform years, easing the overall employment problem.

Table 7 : Percentage Distribution of Usual Status (Primary and Subsidiary) Workers by Usual Industry Group — Bihar and India.

	Year	Percentage of workers in sectors			
		Primary	Secondary	Tertiary	All
Bihar	Rural Males				
	1983	81.2	7.8	11.0	100.0
	1987-88	80.0	8.3	11.7	100.0
	1993-94	82.0	5.8	12.2	100.0
	1999-00	79.0	8.8	12.2	100.0
	2004-05	78.9	9.0	12.1	100.0
	Rural Females				
	1983	88.2	7.1	4.7	100.0
	1987-88	90.2	5.8	4.0	100.0
	1993-94	91.9	4.4	3.7	100.0
	1999-00	85.7	9.1	5.2	100.0
2004-05	84.3	10.0	5.7	100.0	
India	Rural Males				
	1983	77.8	10.0	12.2	100.0
	1987-88	74.5	12.1	13.4	100.0
	1993-94	74.1	11.2	14.7	100.0
	1999-00	71.4	12.6	16.0	100.0
	2004-05	71.2	12.7	16.1	100.0
	Rural Females				
	1983	87.8	7.4	4.8	100.0
	1987-88	84.7	10.0	5.3	100.0
	1993-94	86.2	8.4	5.4	100.0
	1999-00	85.4	9.0	5.6	100.0
2004-05	84.1	9.2	6.7	100.0	

Source : Report of NSSO Surveys of relevant rounds

Responding to the dismal employment scenario across the country, particularly in the rural areas, the central government has recently launched its massive intervention for rural employment through the National Rural Employment Guarantee Act (NREGA). Out of 200 districts that were covered under NREGA in the first phase, 23 districts were from Bihar. In the second phase, 15 more districts of Bihar have been brought under NREGA, bringing all the 38 districts of the state under the scheme. Unfortunately, however, the performance of the scheme in Bihar has been very poor. Remembering that no less than 15 percent of the below poverty line households in India live in Bihar (35 million out of 230 million), Bihar's share in the scheme should have matched that ratio. But the households who have been provided employment under NREGA in Bihar constitute

barely 10 percent of such households in India (Table 8). The share of Bihar in the funds disbursed for wages is even lower at about 7 percent. It is, therefore, not surprising that out of the maximum limit of 100 days of employment, the average person-days of employment per household in Bihar is just 22 days, compared to the national average of 42 days. Since the rural unemployment rate in Bihar is about 8 percent (Table 6) and the poverty ratio is about five times that (Table 12), it is obvious that the problem of poverty is much deeper. There is a large number of people, both in Bihar and India, who are employed and yet poor. But if the NREGA could be implemented more efficiently in Bihar, it would have certainly made visible impact on rural employment and reduction of poverty.

Table 8 : Performance of NREGA in Bihar

Indicator	Bihar	India	Bihar as percentage of India
Number of districts covered	38	330	11.5
No. of hhs. provided employment (lakh)			
2006-07	16.9	210.2	8.0
2007-08	38.6	338.9	11.4
Funds disbursed as wages (Rs. crore)			
2006-07	418.6	5842.4	7.2
2007-08	683.2	10738.5	6.3
Average person-days of employment (per hh.)	22	42	52.4

Economic Regions in Bihar

Before we move to the next section on the trend of human development in Bihar during the last two decades, it is probably necessary to make two important observations on the overall pattern of economic growth in Bihar — the first underlining the considerable intra-state disparities in development, and the second relating to what indeed had caused an abysmally low growth rate of its economy during the nineties. On the first issue, it should be noted that just as the level and pattern of economic growth at the aggregated level of India hide enormous inter-regional or inter-state disparities, the state-level analysis also indicates the same limitation vis-à-vis the intra-state disparities.

Although district-level data is generally used to analyse the intra-state disparities in development, the concept of economic zones is probably more useful for this purpose which groups the large number of districts into a smaller number of nearly homogeneous clusters, making it easier to analyse the intra-state disparities. For the present state of Bihar (i.e., excluding Jharkhand), a clustering of the districts into six economic zones (using six indicators of economic and social development) relating to the year 2000-01 yields a clear geographical pattern (Ghosh, 2001). As shown in Table 9, the two most developed regions of the state — Cluster A (Patna, Nalanda, Bhojpur, Buxar and Jehanabad) and Cluster B (Rohtas, Kaimur, Nawada and Aurangabad) — are both in the south-west part of the state where the agricultural productivity is the highest. The two most disadvantaged regions — Cluster E (Siwan, Gopalganj, Vaishali, Madhubani and Samastipur) and Cluster F (East Champaran, Sitamarhi, Sheohar, Saharsa, Supaul, Madhepura, Khagaria, Purnea, Araria, Kishanganj and Katihar) — are both in the north, Cluster F in the north-east being the most disadvantaged. The districts in the remaining two zones, representing the average levels of development, are spread both in the north and south. It is easy to note from this clustering pattern that the development gradient in Bihar runs both from south to north as well as from east to west. An idea about the economic disparity among these six regions can be made from the average value of six indicators in each of those regions (Table 10).

Table 9 : Economic Zones in Bihar

Clusters	Districts
A	Patna / Nalanda / Bhojpur / Buxar / Jehanabad
B	Rohtas / Kaimur / Nawada / Aurangabad
C	Begusarai / Saran / Darbhanga
D	Gaya / Bhagalpur / Banka / Munger / Lakhisarai / Sheikhpura / Jamui / West Champaran / Muzaffarpur
E	Siwan / Gopalganj / Vaishali / Madhubani / Samastipur
F	Khagaria / East Champaran / Sitamarhi / Sheohar / Saharsa / Supaul / Madhepura / Purnea / Araria / Kishanganj / Katihar

Source : Ghosh (2001)

Table 10 : Average Value of Development Indicators for Different Economic Zones of Bihar

Cluster	Agr. Productivity (Rs. / acre) (2000-01)	Rural Poverty Ratio (1993-94)	Urbanisation (2001)	Per Capita Bank Deposits (Rs.) (2001)	Decadal Growth Rate of Population (1991-01)	Literacy Rate (2001)
A	11985 (1)	45.5 (1)	28.4 (1)	6384 (1)	24.4 (1)	58.7 (1)
B	10693 (2)	58.0 (4)	8.7 (3)	2888 (5)	26.3 (3)	55.7 (2)
C	6572 (5)	49.2 (2)	7.2 (5)	3345 (2)	28.1 (4)	45.6 (5)
D	9606 (3)	50.7 (3)	6.2 (6)	3325 (3)	26.0 (2)	48.1 (4)
E	6876 (4)	60.3 (6)	12.3 (2)	3206 (4)	29.6 (5)	50.9 (3)
F	6565 (6)	59.3 (5)	7.4 (4)	1508 (6)	31.5 (6)	37.2 (6)
Bihar	8313	58.2	9.3	3124	28.8	46.4

Source : Ghosh (2001)

A general acquaintance with the economy of Bihar will suggest that the boundaries of its broad economic zones have remained nearly unaltered during the recent decades. However, this does not preclude the possibility of a few districts surging ahead or some relatively more developed districts slipping down. To identify those districts where either of these two possibilities were realised, the above exercise of clustering of districts in six development zones were done with the data relating to the year 1990-91 as well. The resulting cluster patterns have showed that as many as four districts (Gaya, Munger, West Champaran and Vaishali) had slipped down the development ranking during the nineties with Khagaria being the only district to have improved its ranking. Quite expectedly, except in case of Gaya, these decadal changes in the ranking of the districts were related to their agricultural growth. A second noteworthy feature of development dynamics of the nineties in Bihar is the widening of the inter-cluster disparities in development, a parallel of the widening enter-state disparities in development during the same decade. Considered along with the phenomenon of inter-sectoral disparity between the agricultural and non-agricultural sector, this simultaneous trend of widening intra-state disparities indicates how the economic inequalities in different layers interlock with each other to continually reproduce the existing development pattern.

State and Market in Bihar

On the issue of why Bihar's economy has been continually experiencing low growth, specially during the nineties, it is relevant to discuss the expected roles of the state and market in the

development initiatives. To consider the role of the state first, one may note that its developmental role was a part of the self-definition of the immediate post-colonial state in India and it had functioned under that framework up to the seventies and somewhat weakly even during the eighties. In this framework, the core elements of the national development strategy were generally stated as 'sector-specific' ones, not 'region-specific'. In India, "the plan documents lay down GDP growth targets for the country as a whole, but this aggregate growth is not disaggregated into targets for the growth of the state domestic product of individual states" (Ahluwalia, 2000). But these apparently sector-specific development strategies are almost certain to entail region-specificities as well, depending on the sectoral composition of different regional economies and they usually work much to the disadvantage of the poorer states, including Bihar.

The asymmetric geographical distribution of resources in favour of the states that were already better off because of historical reasons is clearly visible in the national development strategy for both industrial and agricultural growth. To consider the strategy of industrialisation first, one may note that it had initially implied favourable investment patterns in Bihar because of its rich mineral resources located in Jharkhand region, now a separate state. But the establishment of basic industries in Bihar as a result of public investment could not lead to further industrialisation because of the absence of adequate forward linkages. Thus, this initial advantage for Bihar was more than offset by the policy of 'freight equalisation' which ensured availability of basic industrial inputs like coal and steel at same prices throughout India. This promoted the growth of industries in those regions where the industrial economy was already large (to take advantage of the external economies) and deprived those areas which had 'natural' comparative advantage for industrialisation.

As regards the national strategy of agricultural development, its main plan was the agenda for Green Revolution, the 'economic motive' behind which was not a 'pervasive' agricultural growth as such, but only ensuring that the supply of food grains to the urban market meets the food demands of the industrial workers. For this limited objective to be met, it was not at all necessary to promote agricultural growth throughout India; a coverage of barely one-fifth of the cultivated area in the country under Green Revolution was sufficient to attain the goal. A small part of the south-western Bihar, because of high fertility of its soil and a strong canal-based irrigation

infrastructure, has indeed benefited from this strategy and now forms the most developed region of the state. But once the basic objective of meeting the urban food demand was met, it was not felt necessary to extend it to other areas and, nearly four decades after the Revolution had started, its present spread is almost as limited as it was initially. The withdrawal of the state for the task of a pervasive agricultural growth is indicated by the declining trend in public sector investment in agriculture. The contribution of the public sector towards capital formation in agriculture had declined continually during the eighties and nineties, falling to the lowest ever share of 23.4 percent in 2000-01 (Hanumantha Rao, 2005). This negative trend was indeed stronger in Bihar as the health of state finances, the major source of public investment, has continuously deteriorated during these two decades.

During the nineties when the market was expected to replace the state as the main initiator of growth impulses, Bihar's disadvantage was indeed deepened. In this strategy, only the states with stronger industrial base and hence a large command over the market were able to utilise the opportunities of market-led growth. A recent survey of market size across the country indicates that Bihar and Jharkhand together, although inhabited by 10.7 percent of the country's population, commands only 6.5 percent of its market (Indicus, 2004). The share of the market of the respective states are, however, not restricted to its geographical territory, exports to other states count as much. But, the disadvantage here is even more — the share of revenue from central sales tax (an indicator of export from a state) is only 2.5 percent for Bihar and Jharkhand put together. Comparing the pre-reform period when the state was the prime mover for development and the post-reform period when the market had assumed that role, it is not difficult to realise that the inequality in growth opportunities is wider in the latter period. The extremely poor growth performance of the Bihar economy during the post-reform period is not really surprising in this background. One should also note here that the smaller size of the markets in poorer regions like Bihar not only limits its growth opportunities, but also implies smaller revenues for the state governments which further weaken them to play those development roles which are expected of them even in the era of reforms. For issues on human development, these aspects of capacity and role of the state are very important.

III. Issues in Human Development

One of the principal messages that have emerged from the recent writings on human development, including the Human Development Reports of UNDP, is that rapid economic growth does not automatically lead to poverty reduction or human development; in other words, the former is not a 'sufficient' condition for the latter. Further, a number of countries of the world, like Sri Lanka and Philippines in Asia and Kerala within India, also enjoy a ranking with respect to their HDI values much higher than their income or wealth rankings, leading to a parallel message that a high level of economic growth is not 'necessary' either for improving the human development levels of disadvantaged nations. Thus, for whatever reasons, be it historical or some recent social dynamism or the state assuming a fervent welfare character, the trends in human development in general or in some aspects of it can be very different in a region from what its growth performance indicates.

Human development is obviously a much wider concept than economic growth incorporating such basic human needs as capacity and freedom; but following the tradition of UNDP, it has now become a wide practice by many countries to compute HDI which is a simple summary measure of three components of human development — living a long and healthy life, being educated and having a decent standard of consumption and living conditions. The Planning Commission have been preparing such indices for all the states of India and, since these indices are now available for 1981, 1991 and 2001, they provide a useful information base for identifying the trends in human development over a fairly long period of two decades (Table 11). In conformity with its ranking with respect to Per Capita Income (Table 1), Bihar also ranks at the bottom with respect to its HDI in all the three years. It is, however, a little pleasing to note that although economic growth in Bihar has far lagged behind the national average, its HDI of 0.237 and that of India at 0.302 in 1981 have increased at nearly the same pace during the two decades to reach 0.367 for Bihar and 0.472 for India in 2001. Throughout this period, the HDI for Bihar has been about 20 percent lower than the national HDI. Of the eight indicators that are used to compute the HDI, the situation in Bihar is comparatively better only with respect to the 'availability of safe drinking water'. In 2001, 86.6 percent of Bihar's population had the provision for safe drinking water, compared to 78.0 percent for India. Bihar's position, however, was much worse with regard to 'per capita expenditure' and 'poverty ratios'. A second important feature of HDI for Bihar

emerges when one considers the rural and urban indices separately. Interestingly, the HDI for rural Bihar enjoys a rank of 13 among the 15 major states of India, ahead of both Rajasthan and Madhya Pradesh in 1981 and Uttar Pradesh and Madhya Pradesh in 1991 (separate estimates for rural and urban areas are not available for 2001).

Table 11 : Human Development Index of Major Indian States (1981, 1991 and 2001)

States	1981			1991			2001
	Rural	Urban	Combined	Rural	Urban	Combined	Combined
Punjab	0.386 (2)	0.494 (2)	0.411 (2)	0.447 (2)	0.566 (2)	0.475 (2)	0.537 (2)
Haryana	0.332 (3)	0.465 (5)	0.360 (4)	0.409 (4)	0.562 (3)	0.443 (5)	0.509 (5)
Maharashtra	0.306 (5)	0.489 (3)	0.363 (3)	0.403 (5)	0.548 (6)	0.452 (4)	0.523 (4)
Gujarat	0.315 (4)	0.458 (6)	0.360 (5)	0.380 (6)	0.532 (7)	0.431 (6)	0.479 (6)
W. Bengal	0.264 (8)	0.427 (8)	0.305 (8)	0.370 (7)	0.511 (9)	0.404 (8)	0.472 (8)
Tamil Nadu	0.289 (7)	0.445 (7)	0.343 (7)	0.421 (3)	0.560 (4)	0.466 (3)	0.531 (3)
Karnataka	0.295 (6)	0.489 (4)	0.346 (6)	0.367 (8)	0.523 (8)	0.412 (7)	0.478 (7)
Kerala	0.491 (1)	0.544 (1)	0.500 (1)	0.576 (1)	0.628 (1)	0.591 (1)	0.638 (1)
A. Pradesh	0.262 (9)	0.425 (9)	0.298 (9)	0.344 (9)	0.473 (12)	0.377 (9)	0.416 (10)
M. Pradesh	0.209 (15)	0.395 (11)	0.245 (14)	0.282 (15)	0.491 (11)	0.328 (12)	0.394 (12)
Assam	0.261 (10)	0.380 (13)	0.272 (10)	0.326 (11)	0.555 (5)	0.348 (10)	0.386 (14)
U. Pradesh	0.227 (12)	0.398 (10)	0.255 (13)	0.284 (14)	0.444 (15)	0.314 (14)	0.388 (13)
Rajasthan	0.216 (14)	0.386 (12)	0.256 (12)	0.298 (12)	0.492 (10)	0.347 (11)	0.242 (9)
Orissa	0.252 (11)	0.368 (15)	0.267 (11)	0.328 (10)	0.469 (13)	0.345 (12)	0.404 (11)
Bihar	0.220 (13)	0.378 (14)	0.237 (15)	0.286 (13)	0.460 (14)	0.308 (15)	0.367 (15)
India	0.263	0.442	0.302	0.340	0.511	0.381	0.472

Source : National Human Development Report, 2001, Planning Commission, New Delhi

(Note : The figures in bracket denote the ranking of the states)

Planning Commission's estimates of HDI for different states and India as a whole at decadal intervals are extremely useful in indicating the broad trend in this area, but a finer analysis of the trend of human development in Bihar demands separate consideration of each of its components. Three of these components — poverty ratios, health status and literacy — are of particular

importance, the first two relating to the biological survival of life and the third forming the base for any expansion of human capabilities.

Poverty Ratios

The income dimensions of poverty are incorporated in the HDI through two components — ‘per capita consumer expenditure’ and ‘percentage of population below poverty line’. Of these, the poverty ratio has continued to attract more attention both in the context of judging the distributive implications of whatever growth is achieved and its close relation to the pace of human development. Since the beginning of eighties, NSSO has estimated poverty ratios for four years which allow one to see the trend of poverty ratios, both during the eighties and nineties (Table 12).

Taking the poverty ratios in the rural areas first, it is noticed that the latest estimate, relating to the year 2004-05, shows this to be 42.2 percent in Bihar, compared to 28.7 percent for India as a whole. This level of rural poverty is only the third highest in the country, the state of Jharkhand and Orissa reporting still higher ratios at 42.9 and 46.9 percent, respectively. This is, of course, no comfort to Bihar because being a part of the Gangetic plains its soil fertility and water resources are much higher than those of Jharkhand and Orissa, a substantial part of whose area falls in the relatively infertile Deccan Plateau. From this consideration, the poverty level should be much lower in Bihar. In absolute terms, the above poverty ratios imply about 35 million people living below the poverty line in rural Bihar, out of a total of about 230 million poverty-stricken people in rural India. However, it is comforting to note that the poverty ratio has decreased here from 64.7 percent in 1983 to 42.2 percent in 2004-05, a substantial drop of 22.5 percentage points. The decrease in rural poverty ratio in India during the same period was 17.8 percentage points — from 46.5 percent in 1983 to 28.7 percent in 2004-05. This reduction in rural poverty was a steady process in India as a whole, but somewhat paradoxically, the rural poverty ratio in Bihar had increased between 1987-88 (54.2 percent) and 1993-94 (56.6 percent). In the absence of such an atypical phenomenon, the rural poverty ratio would have probably registered a steeper fall in Bihar between 1983 and 2004-05. Indeed, between 1993-94 (56.6 percent) and 2004-05 (42.2 percent), the fall in rural poverty ratio was as much as 14.4 percentage points, the highest in the country. If one prepares an estimate of ‘annual reduction of poverty’ from those four estimates of

rural poverty, as presented in Table 12, it is observed that this speed of reduction has been lower in Bihar than in India as a whole during the eighties. However, between 1993-94 and 2004-05, this pace has been much higher in Bihar compared to the national average. Thus, the overall rural poverty situation in Bihar can be described by two major observations — first, it is still the worst in the country leaving Jharkhand and Orissa; and second, a redeeming one, that the poverty ratio is dropping at a faster rate in Bihar in the recent years. Although a number of poverty alleviation programmes, largely financed by the central government, might have made their own contributions towards the decline of poverty ratios, it is the growth of the economy that contributes most towards such decline. For the overall Indian economy, a study has estimated that no less than 85 percent of the decline in poverty ratios is needed mediated by the growth process, the contribution of other factors including poverty alleviation programmes being limit to only 15 percent (Dutt, 2002). One can, therefore, easily relate the substantial reduction in rural poverty ratio in Bihar to the increased growth of its agricultural economy since the nineties.

Table 12 : Poverty Ratios in Bihar and India

Sector	Years	Bihar	India
Poverty Ratios			
Rural	1983	64.7	46.5
	1987-88	54.2	39.0
	1993-94	56.6	37.2
	2004-05	42.2	28.7
Urban	1983	61.6	43.6
	1987-88	63.8	38.7
	1993-94	40.7	32.6
	2004-05	38.1	25.9
Annual Reduction in Poverty Ratio (Percentage Points)			
Rural	Eighties	0.74	0.85
	Nineties	1.30	0.78
Urban	Eighties	1.48	0.80
	Nineties	0.24	0.61

Source : Report of NSSO Surveys of relevant rounds

As regards the urban areas in Bihar, the poverty ratio there in 2004-05 was 38.1 percent, compared to 25.9 percent for India. The difference between Bihar and India with respect to urban poverty ratio, one may note, is smaller than observed for the rural poverty ratio. This is primarily because urban economies are relatively more homogeneous and hence inter-regional differences are comparatively less. Apart from the expected fact that urban poverty ratio is higher in Bihar than in India as a whole, one may also note that the pace of urban poverty reduction in the overall Bihar economy is a little faster than in India as a whole. Between 1983 and 2004-05, a gap of 22 years, the urban poverty ratio has decreased by 23.5 percentage points (from 61.6 to 38.1 percent) in Bihar; for the national economy, this reduction is 17.7 percentage points (from 43.6 to 25.9 percent). In fact, one would have expected the drop in urban poverty ratio in Bihar to be rather limited, in view of a very sluggish growth of its non-agricultural economy during the nineties, but as noted before, the urban employment (albeit in the unorganised sector) had grown at a moderate rate during this decade which probably explains the trend in urban poverty ratios.

Apart from local employment opportunities which might be related to the state's own growth performance, the poverty ratios in Bihar for both rural and urban areas are also influenced by the phenomenon of extensive outmigration of workers from Bihar, many of whom are from the poorer households. Taking the extent of male migration into account which better approximates the extent of workers' migration, it is observed that net inter-state inter-censal migrants as percent of total population was 1.18 in 1981, but had increased to 1.32 in 1991. This implies that between 1981 and 1991, an additional 17 lakh males had outmigrated from Bihar. Between 1991 and 2001, the net migration rate for males in Bihar has decreased to 0.39, but it is still the highest among all the states in India (Planning Commission, 2008).

Literacy and Education

With respect to most of the development indicators, Bihar ranks at the lowest among all the states of India. But one limitation that hinders most its development prospects is probably its lowest literacy level. As per 2001 census, Bihar had a literacy rate of 47.0 percent which was only a little higher than the national literacy rate in 1981 (Table 13). In other words, the state is nearly two decades behind the nation vis-à-vis its literacy status. Between 1991 and 2001, the literacy rate increased in Bihar by 9.3 percentage points (37.7 to 47.0 percent) and by this rate the total

literacy in Bihar is more than half a century away. In contrast, the literacy rate in India in 2001 was 65.4 percent, increasing by 13.2 percentage points from 52.2 percent in 1991. With this momentum, the total literacy in India can be expected by about first quarter of the present century. The only redeeming feature of this otherwise dismal literacy scenario in Bihar is a reduction in gender disparity in literacy rates both during the eighties and nineties. In 1981, the female literacy rate of 16.5 percent was 65 percent lower than the male literacy rate of 46.6 percent. In 1991, this ratio has come down to 57 percent and, in 2001, to a still lower level of 45 percent. In addition, although the spread of literacy in Bihar has always lagged behind the national rate, the nineties have observed a faster spread of literacy here than during the eighties.

Table 13 : Literacy Rates in Bihar and India

Year	Literacy Rates/ Decadal	Bihar	India
Literacy Rates			
1981	Male	46.6	56.4
	Female	16.5	29.8
	Overall	31.6	43.6
1991	Male	52.5	64.1
	Female	22.9	39.3
	Overall	37.7	52.2
2001	Male	60.3	75.9
	Female	33.6	54.2
	Overall	47.0	65.4
Decadal Increase			
1981-91	Male	5.9	7.7
	Female	6.4	9.5
	Overall	6.1	8.6
1991-2001	Male	7.8	11.8
	Female	10.7	14.9
	Overall	9.3	13.2

Source : Census Reports 1981, 1991 and 2001

The most immediate reason for slower spread of literacy in Bihar is probably its poor educational infrastructure. At the present low level of per capita incomes, a rapid increase in literacy rates is

unlikely in the absence of adequate public expenditure on education. A rapid increase in literacy rates in whichever states it has occurred has generally been a consequence of supply impetus, like in Rajasthan in recent years. But unfortunately, such supply impetus has indeed been weakening in Bihar both during the eighties and nineties. Educational infrastructure in a state comprises several institutions, starting from the elementary to university education. However, for spreading basic literacy, the infrastructure for elementary education is most relevant and the declining strength of this infrastructure in Bihar is apparent both from the number of such institutions and the teachers employed to run them (Table 14). The number of primary schools per 10,000 population in Bihar has recorded a negative growth rate both during the eighties and

Table 14 : Progress of Elementary Education Infrastructure in Bihar and India

		1980-81	1990-91	1999-00	Annual Growth Rate	
					Eighties	Nineties
Number of Institutions per 10,000 Population						
Bihar	Primary	7.41	6.25	5.47	(-) 1.53	(-) 1.17
	Middle	1.64	1.55	1.40	(-) 0.54	(-) 0.87
	Elementary	9.05	7.79	6.87	(-) 1.35	(-) 1.11
India	Primary	7.32	6.69	6.54	(-) 0.82	(-) 0.18
	Middle	1.76	1.76	2.02	0.00	1.37
	Elementary	9.08	8.45	8.56	(-) 0.66	0.17
Number of Teachers per Institution						
Bihar	Primary	2.18	2.21	2.15	0.12	(-) 0.23
	Middle	7.40	7.47	7.21	0.09	(-) 0.56
	Elementary	3.13	3.25	3.18	0.36	(-) -0.30
India	Primary	2.76	2.93	2.99	0.56	0.00
	Middle	7.18	7.22	6.55	0.06	(-) 0.80
	Elementary	3.61	3.82	3.83	0.52	(-) 0.06

Source : Panchmukhi, P R (ed.) (2004)

nineties, the fall being sharper in the earlier decade. Interestingly, such a negative trend is visible even at the national level, but fortunately the pace of decline is a little slower. The manpower base of these educational infrastructures, as indicated by the number of teachers per institution, had also experienced a negative growth in Bihar at least during the nineties, though not during the preceding decade. These trends clearly show that the withdrawal of the state from the all

important sector of primary education had started even before the introduction of economic reforms during the nineties. This is primarily because of the incapacitation of the state resulting from the weakening of public finances that had started right in the eighties in Bihar.

Apart from the inadequate initiatives of the state government for promoting literacy, its slower spread is also attributable to some of the social attitudes in Bihar imbibed from the early colonial period. The first organised opposition to the British colonialism had occurred in the Hindi heartland, including Bihar. In consequence, on the one hand, just as the colonial administration was most exploitative here, on the other, the local people had developed a hatred for anything that was associated with the British, including formal education. It has taken a long time for Bihar to get rid of this social attitude and hence a 'demand' for education has emerged here in only recent decades. Three separate phenomena are visible that strongly indicate the presence of such a demand for education. Consider, for example, the fact that the strategy of 'literacy campaigns' for promoting adult literacy by the National Literacy Mission (NLM), one of the five Missions promoted by the central government led by Rajiv Gandhi, had achieved reasonable success in Bihar, along with Madhya Pradesh and Rajasthan in the Hindi heartland. These campaigns are organised taking a district as the unit and the district-based evaluations of these campaigns have generally shown that the participation of the middle sections of the population is the highest in these campaigns including their womenfolk. This heightened demand for literacy and education among the middle sections of the population can possibly be related to their new position in the structure of political power where they are very likely to experience a mismatch between their high power status and low education status. A second phenomenon that again underlines a strong demand for education is the huge outmigration of students from Bihar for higher education to Delhi, Maharashtra, Karnataka and other places. Admittedly, this phenomenon is partly due to the deterioration of the state's own educational institutions, but it might be noted that the trend had started even in early eighties when the local institutions were still reasonably functional. Finally, in spite of being the state with the lowest per capita income, it has witnessed in recent years a proliferation of private institutions even for primary education and many of them are in rural areas. A recent survey reports that, in rural Bihar, no less than 8.6 percent of the children attend private schools (10.1 percent boys and 6.3 percent girls), entailing an annual expenditure of 1652 rupees per student (NCAER, 2004). It is indeed a cruel paradox in Bihar that when its

government used to provide a moderate supply impetus for literacy and education in early decades after independence, the demand was lacking; later when the demand has been generated through social changes, the supply mechanism had become rather incapacitated.

Health Status

For an overwhelmingly large section of the Indian population, the health needs are indeed more immediate than their educational needs. Absence of literacy and formal education may restrict a person's choices with respect to livelihood and other life-supporting activities, but in the absence of good health conditions, it will not be possible to utilise even the limited choices that a person may have. Secondly, without strengthening human life as a biological phenomenon, efforts to enrich its other dimensions, social or cultural, are probably meaningless. Thus, besides income poverty and education, health standards are included as the third important component of Human Development Indices. Good health includes not merely freedom from disease, but other

Table 15 : Infant Mortality Rate and Expectation of Life in Bihar and India

		1981-83	1991-93	2004-06	Improvement during	
					Eighties	Nineties
Infant Mortality Rate (per 1000 Live Births)						
Bihar	Rural	114	74	61	40	13
	Urban	61	47	48	14	(-) 1
India	Rural	116	86	65	30	21
	Urban	65	52	37	13	15
Expectation of Life (Yrs.)						
Bihar	Male	55.2	60.8	62.0	5.6	1.8
	Female	52.9	60.1	60.1	7.2	(-) 0.0
India	Male	55.6	60.6	62.3	5.0	1.7
	Female	56.4	61.7	63.9	5.3	2.9

Source : Government of India (2006)

dimensions as well (nutrition, medical care, reproductive and child health, etc); however, 'Infant Mortality Rate (IMR)' and 'Expectation of Life at Birth' are generally considered as two of its most sensitive indicators. The health status of the people of Bihar and India vis-à-vis these two indicators are presented in Table 15, indicating their current level as well as the trend during the recent decades.

In the context of the analysis of trend of poverty ratios and literacy in Bihar just above, one had already encountered instances which negated any strong relationship between growth performance and trends in human development. In the context of indicators of health status, one can again notice that there could be factors, other than the income levels or growth thereof, substantially influencing human development. As regards IMR for rural areas, presently 61 for Bihar, it is indeed slightly worse than the national average at 65. The figure for early eighties and nineties further indicate that this relatively better status of Bihar vis-a-vis IMR has existed in the past also. However, in case of IMR for urban areas, it is 37 per 1000 live births for India as whole, compared to a much higher figure of 48 for Bihar. Indeed, Bihar has experienced deterioration in urban IMR in absolute terms during the nineties, making it rise from 47 to 48. The urban IMR in Bihar was indeed a little lower than the national average in the eighties and early nineties. From the overall trend in IMR in Bihar and India during the eighties and nineties, it also emerges that the improvements have been much slower in the nineties, a phenomenon particularly lamented by the UNDP Report (UNDP, 2006).

That Bihar enjoys a health status relatively better than what its income levels would indicate is also apparent when one notes that, according to the most recent estimate, the expectation of life in Bihar is 62.0 years for males and 60.1 years for females; for India as a whole, the corresponding estimates are 63.3 years for males and 63.9 years for females. Apart from the lower expectation of life in Bihar, one should note here that the gender disparities in health status, as indicated by the estimates of expectancy of life, is much wider in Bihar where average female life is indeed shorter; according to the usual demographic pattern, it is males who generally have a shorter life, as observed in India as a whole. From a comparison of the estimates of life expectancy in 1981-83, 1991-93 and 2004-06, it clearly emerges that Bihar and India had experienced a similar upward trend during the eighties. Indeed, during this decade, the pace of improvement was faster in Bihar. The nineties, however, have witnessed a clear deceleration in the pace of improvement in health standards, more so in Bihar. Quite alarmingly, the expectation of life for females has indeed remained unchanged during these decades in Bihar. One atypical feature of demographic trend in Bihar, closely related to its health status, is that during 1991-2001 the decadal growth rate of population here has been 28.6 percent, the highest among all the major states of India. Surprisingly, this demographic growth was higher than what was observed in Bihar during the

preceding decade of the eighties. The phenomenon is atypical, since it is unlikely that the fertility rates in Bihar, instead of decreasing, have actually increased here causing an increase in natural growth rate of population. After a finer analysis, it is found that the birth rates in Bihar has dropped from 32.3 in the early nineties to 31.4 in late nineties, a drop of 0.9, but simultaneously, the death rate has dropped here by a higher margin from 10.6 in early nineties to 9.4 in late nineties, a drop of 1.2. Consequently, the natural growth rate of population has recorded an increase in Bihar. As a demographic phenomenon, this is obviously a negative trend; but paradoxically, it is attributable to a positive trend in health status in Bihar.

Expenditure on Social Sector

The economic growth of a region could impact its human development in several ways. But the two major channels of this impact are the private and public consumptions, both their levels and pattern. In poor regions like Bihar, it is the public expenditure on social sector which carries more importance, because at low levels of income, the private expenditure on the same is almost certain to be inadequate.

In the context of Bihar, one may note that during the nineties when Jharkhand was a part of Bihar the expenditure on social sector in Bihar had a growth rate much lower than the growth rate for the total public expenditure of the state government. For a state which was already disadvantaged in terms of educational and health infrastructures, such tardy growth of public expenditure on social sector only implied worsening of the situation, at least for the elementary education sector, as shown before (Table 14). Such limited attention for the social sector was mainly because expenditure for some committed heads like administrative services, interest payment, pension, etc. had to grow at higher rates, leaving limited option for social sector development. Unfortunately, the separation of Jharkhand from the erstwhile Bihar in year 2000 had further weakened the public finances of the present Bihar, making its social sector even more vulnerable in terms of public expenditure. Thus, compared to the pre-bifurcation situation when the social sector expenditure used to account for about one-third of the total government expenditure, it had dropped to 18.7 percent in 2001-02 in Bihar (Table 16). Fortunately, thereafter, the

Table 16 : Trend of Social Sector & Expenditure in Bihar (2001-02 to 2005-06)

(Rs.crore)

Sectors	2001-02	2002-03	2003-04	2004-05	2005-06	Annual Growth Rate
Education	2478.1	2763.5	2821.8	3142.2	4394.0	13.8
Health	518.6	553.3	534.2	607.5	876.9	12.1
Other Programmes	535.5	658.9	677.4	1045.3	1591.0	30.2
Total Social Sector Expenditure	3532.2	3915.7	4033.3	4745.0	6861.9	16.5
Total Govt. Exp.	18882.3	15505.5	22481.9	20058.0	22568.5	6.3
Social Sector Expenditure as percentage of Total Government Expenditure						
	18.7	25.2	17.9	23.9	30.4	—

state government had tried to pay relatively more attention to the problem of inadequate resources for the social sector and, in the present decade the expenditure on social sector has been growing annually at 16.5 percent, with expenditure on the educational and health sector increasing at a little lower rates at 13.8 and 12.1 percent, respectively. However, considering the fact that educational infrastructure in Bihar, particularly for elementary education, is very weak, even the present level of financial expenditure may be far from adequate. One has to wait till the next census to know how inadequate has been the public expenditure on education in Bihar.

Social Empowerment and Panchayati Raj

The concept of human development, intended to represent the quality of life of the people in general, is indeed a comprehensive one and should include 'social empowerment' as one of its critical dimensions. Unfortunately, social empowerment does not lend itself easily to any measurement (as do such dimensions as income, education and health) and thus does not enter the computation of Human Development Indices, either of the Planning Commission or of the UNDP. In India, besides a number of indirect efforts, the government has tried to contribute directly towards social empowerment by strengthening the Panchayati Raj Institutions (PRIs) across the country. Essentially, it is an endeavour for 'political' empowerment which can form a

base for a wider empowerment process, inclusive of economic, social and cultural dimensions. After the constitutional amendment which made PRIs a mandatory political body, Bihar was the last state to hold elections for it in 2001 and it is worthwhile to analyse its results, indicative to a considerable extent of the status of social empowerment in Bihar.

Bihar is one of the few states in India where the trajectory of social empowerment and the path of political decentralisation followed a distinct pattern. This difference is indeed rooted in the history of socio-political struggles here from the days of the independence struggle. Although the administrative and economic stagnation had marked the Bihar firmament for long, the society and polity in Bihar have always been vibrant, unlike in other Hindi heartland states. Apart from the stellar role of Bihar in the independence struggle, there have been several movements here which all have strong impact on local politics and society. Unfortunately, most of these struggles like the peasant movement against the feudal landlords or the stirring middle caste population by for social mobilisation could not expand their social base beyond the initial composition or extend its immediate goal, but the cumulative impact of these apparently disjointed movements have been the emergence of new classes of elites. After the ‘traditional’ elites who had shaped the national movement and the immediate post-independence development in India, there have subsequently emerged the ‘vernacular’ elites in Bihar during the seventies, mainly representing the agro-capitalists born out of the strategy of Green Revolution, albeit of limited reach in Bihar. Finally, the nineties have witnessed the emergence of yet another class of ‘cockney’ elites representing the middle sections of the society who were largely deprived, but was able to convert their numerical superiority into a decisive electoral advantage (Gupta, 2001). The results of the Panchayat elections of 2001 are probably most reflective of the above changes in the structure of political power at the grassroots.

The Panchayat Election in 2001 was held in Bihar after a lapse of 23 years, thanks to the 73rd amendment of the Constitution and the judicial pressure on the state government to honour those constitutional provisions. Even in the Panchayat Election of 1978, there was a visible shift in the political centre of gravity with leaders from the middle castes making their presence felt in the

structure of Panchayat leadership. But the 2001 Elections had consolidated those gains to a much higher level, proving it to be a turning point for the electoral empowerment of middle castes, both its upper and lower sections. A second important phenomenon to be noted from the results of 2001 Panchayat Election is that although there has been a change in the structure of power in favour of the upper middle and lower middle castes, the upper castes or the traditional elites still enjoy a substantial part of the social and political power at the grass-root level. This is in contrast to the power structure at the aggregated level of the state where the dominance of the middle castes is visible to a much larger extent.

From the distribution of Panchayat functionaries by their caste background (Table 17), the emergence of the middle caste leaders is quite apparent who command more than 40 percent of the posts of Chairmen, Members and Mukhiyas of different Panchayats, very close to their share in the overall population at about 53.0 percent. The upper castes, although they have lost their earlier dominant status, still account for 25.3 percent of Panchayat Members and their

Table 17 : Percentage Distribution of Panchayat Functionaries by Their Caste Background

Caste Groups	Percentage Distribution for			Percentage share in Population
	Chairman	Mukhiya	Members	
Upper caste Hindus	35.2	34.0	25.0	12.8
Middle caste Hindus	45.9	45.7	42.1	53.0
Scheduled caste Hindus	—	1.1	16.9	15.7
Muslims	16.2	15.6	13.0	16.5
Others	2.7	3.6	3.0	2.0
Total	100.0	100.0	100.0	100.0

Source : Gupta (2001)

share among Chairman/ Mukhiyas is even higher at about 35 percent. The scheduled caste population, of course, has the advantage of the provision of reservation to occupy some place in Panchayat power structure, but the Muslims, yet another disadvantaged section of the population, account for 13.0 percent of Panchayat members without the support of reservation provisions. Even in the case of scheduled castes, many of them have been elected as Mukhiyas through open

contests without the support of reservation provisions. At the present stage of political mobilisation in Bihar... election of a Dalit or a woman of the backward classes at any level is itself seen as a statement of social justice... “Given the kind of dominance exercised by the hitherto upper castes in the social life of this region, this itself is seen as a major social transformation” (Sinha, 2005). Unfortunately, a commitment or orientation towards the needs of development is as much lacking among the new political elites as was among the traditional elites and, consequently, such issues as infrastructural development for facilitating economic growth and effective delivery systems for health, education or other components of human well-being have throughout remained peripheral to the process of political mobilisation in the state. The resulting contradiction — between the increasing level of social empowerment and the continuing failure of the state level governance for promoting development — is, therefore, very deep in Bihar.

The level of human development in Bihar, as mentioned in the beginning of this section, is the lowest in India. However, it was also noted there that the HDI for the rural areas of Bihar is comparatively better, placing it ahead of the states of Rajasthan and Madhya Pradesh in 1981 and Uttar Pradesh and Madhya Pradesh in 1991. Secondly, in spite of a slower growth of Bihar’s economy, particularly during the nineties, the HDI in Bihar and India have continued to improve at nearly the same pace, the former being about 20 percent less than the latter throughout. Both these phenomena — a relatively better status of human development in rural areas and the overall human development in Bihar and India improving at a nearly same pace — possibly indicate that the urge for human development in Bihar is very wide among a very large section of its people and growing fast. One expression of this urge was to acquire political power at the grassroots, as revealed by the results of the PRI elections, discussed just above. It appears that this urge has also simultaneously led a large section of the people to undertake ‘independent’ efforts to improve their human development levels to compensate for the slow growth of the state’s economy and the increasingly weak delivery system of the government. In this background, the trend of economic and human development in Bihar during the last two decades instead of indicating how the former influences the latter essentially reveals that in the presence of an urge, human development could proceed, albeit at a moderate pace, even when the economic growth is slow and delivery mechanism of the government is rather weak.

IV. Conclusion

The pace of development in Bihar, be it in terms of economic magnitudes alone or its human dimensions, has been very slow during the two preceding decades. The state was already at the bottom of the development ladder in the beginning of eighties and it still remains there. Nor has there been any change in the development strategies of either the central or the state government which could raise the prospects of a new development thrust in the near future. To make things worse, the present national strategy of economic reforms, restricting the role of state and extending the role of market towards promoting development, makes such prospects appear even dimmer. During the first post-reform decade, Bihar has recorded an economic growth rate which was the lowest for any of the regions of India in any of the decades. If this retarded development had not precipitated into a deeper crisis, it was possibly because a modest growth was realised in its agricultural sector which provides the livelihood opportunities for close to 90 percent of its population. If the economic growth had to be a pre-condition for the well-being of the people, one would have expected a near stagnation or even deterioration in human development in Bihar during the recent past. Fortunately, however, this line of causation has not been operative in Bihar. The pace of human development in Bihar has been slow, but probably not as slow as that of material development. It appears that the need and urge for development is now so strong in Bihar that the people, including those who are from its bottom layers, are adopting alternative paths to satisfy their development urge in the absence of higher levels of income for them. This is an important conclusion that emerges from the observed trend of economic and human development in Bihar in recent decades.

If one compares the trend of human development in Bihar and India as a whole, a clear contrast emerges. At one hand, in spite of enjoying a high growth rate of its economy, the pace of human development in India has been much less than satisfactory, as underlined by the recent Human Development Report of UNDP. But the values of the HDI for different states of India for 1981, 1991 and 2001 show that the national index has increased just as fast as the one for Bihar, the most disadvantaged state both in terms of present level of income and the growth rate of its economy. Of the three states that have been able to register faster human development (Tamil Nadu, Madhya Pradesh and Rajasthan), two are indeed poor-income states. In other words, in

some of the relatively richer states, the pace of human development has lagged behind their material growth.

At the root of the problem of low human development in a region and, further, the unequal development among different groups of its people, lies the phenomenon of unequal opportunity. Economic growth may cause an ‘expansion’ of these opportunities, but that does not necessarily imply the disappearance of ‘inequity characteristics’ of this opportunity structure. Towards contemplating a development strategy for Bihar where human development has a specific focus, it is necessary to distinguish between those strategies that promote expansion for the opportunities for the development and other complementary strategies that ‘modify the iniquitous character’ of the existing opportunities. In identifying the strategies for human development, besides remembering the dichotomy of opportunities as such and its iniquitous characteristics, it is also necessary to remember another dichotomy — short-term and long-term strategies. The short-term strategies are important not merely because the urgency of the needs for human development, but one can generally, and often easily, find some under or unused resources which could be harnessed to promote human development in the short term. Such strategies, besides having lower investment requirements, may also imply shorter gestation period of the chosen interventions. The long-term strategies, on the other hand, generally involve larger resources, longer gestation period and sometimes social mobilisations which aim at attitudinal changes. Finally, there remains the third dichotomy — between state and market — pertaining to the institutional requirements for human development initiatives. When one considers the challenge of human development for Bihar, it is important to remember that, in the face of a much smaller size of the market, the state government has no option than to act as the ‘server of the last resort’. If one cares to locate the principal agency responsible for any creditworthy achievements in human development — for example, educational achievements in Tamil Nadu and Rajasthan or demographic transition in southern states through better health services — they have largely been due to the efforts of the state government, proving the potential of this institution to serve the objectives of human development. The reform measures might absolve the state of some of its economic responsibilities, but such sectors as health, education and other services for human well-being will continue to be its agenda for any foreseeable future. In defining a specific role of the state government, bearing in mind its limited capacity to mobilise additional resources, the

primary strategy should be to make administrative efforts to ensure ‘full utilisation of existing structures’ for health and education services as well as those meant for disadvantaged population like children, women and the scheduled castes / tribes. Such initiatives may not entail expansion of the opportunities for human development, but they could greatly contribute to lessening of inequalities vis-à-vis access to the existing opportunities. Since all these could be initiated within a rather short period of time, they could form the core of short-term policy initiatives for human development.

Notwithstanding the contribution that the above strategy could make towards human development, it must be realised that economic growth is the most ‘natural’ engine for human development. Under the present policy orientation of Indian economy, this responsibility of promoting economic growth rests primarily with the market but, as mentioned before, its size in Bihar is very limited and so also its capacity to act as a propeller of growth. That the market has not grown here, in spite of half a century of development efforts, is basically due to the overall ‘national’ growth strategy where industrial sector is perceived as the only engine of growth, the sectoral allocation of resource being in its favour for last several decades. In this background, the core of a long-term strategy for human development in Bihar, to be mediated through a strong growth process, should be a reversal of that sectoral preference in favour of the agricultural sector. If the policies of the state government could ensure a faster growth of Bihar’s agriculture, leading to reduction in poverty and generation of local demand, markets could gradually emerge here to generate a growth momentum. This long-term strategy of growth could then lead to expansion of opportunities for human development, making it a sustained process.

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