

### Chapter -III

## DEVELOPMENT AND POVERTY IN BIHAR: A MACRO LEVEL ANALYSIS

More than one-tenth of Indians live in Bihar-the country's second most populous state, which is known as its 'most backward' State. With a very high proportion of its population living below the poverty line, Bihar is set to enter the 21st century with the lowest per capita income among all the States of India, as well as the lowest literacy rate among the major States.

This chapter reviews development experience of Bihar during the 1980s and early 1990s, looking in particular at changes in employment patterns and in agricultural production. It discusses how these changes have been crucial in shaping the lives of the poor of the State. It goes on to examine existing and potential areas of intervention in the development process by the State and by the people themselves. The chapter is based on existing literature and secondary data and it will provide a backdrop for the subsequent analysis of the survey data collected for this study.

### **Socio-Economic and Demographic Characteristics - An Overview**

The high incidence of poverty and economic backwardness in Bihar is evident in both the agricultural and industrial sectors. Among the major States of India, it has the lowest per capita net value added from agriculture - Rs. 948 (average of 1987-88 to 1989-90) as compared to Rs. 1522 for India as a whole and Rs. 3,929 for Punjab (CMIE, 1994). Despite the fact that due to the natural fertility of the soil, per hectare yield of some of the crops - mainly foodgrains - is better compared to at least half a dozen other States, per capita foodgrains production is one of the lowest in the country. The lower per capita productivity is partly due to the heavy demographic pressure in the State. Bihar is the third most densely populated State of India (497 persons per sq. km. in 1991) after West Bengal and Kerala. The average per capita operational holding in the State is 0.75 hectares (1991-92) as against 1.3 hectares for India as a whole.

More than three-fourths of the operational holdings are marginal (less than one hectare) in which the average size is merely 0.31 hectares. Floods are a recurring feature in large parts of the plains of Bihar, especially in north Bihar, that cause heavy damage to life and property. Some of the districts in the south Bihar plain and plateau region are drought-prone with poor

irrigation facilities. Though the overall percentage of net irrigated area in Bihar is about 38%, irrigation is largely seasonal and protective. Due to faulty field channels and inefficiency, the quality of irrigation is also poor. Waterlogging in some parts of the command area of north Bihar is a chronic problem.

Bihar possesses about one-fourth of the mineral resources of the country, most of which are located in the Chhotanagpur region. This had led to the development of coal and steel industries in the state even before Independence. In the early 1960s, the public sector steel plant at Bokaro was added to Tata's at Jamshedpur. In 1971 the coalmines were nationalised and modernised. However, in the absence of the development of backward and forward linkages within the State itself, the presence of these industries has in general not benefitted the economy as a whole, and resources have tended to flow out of the State. There has been little diversification in the industrial sector and per capita net value added in the manufacturing factory sector in Bihar was only Rs. 305 in 1989-90 (at current prices) as against Rs. 514 for India as a whole and Rs. 1266 for Maharashtra (CMIE, 1994). With about 87 per cent of its population residing in rural areas, Bihar remains the most ruralised State in the country, with the exception of Assam. Further, about 46 per cent of the State income (average of 1986-87 to 1988-89) are derived from agriculture (and allied activities) as against about 34 per cent for India as a whole and about 23 per cent for Maharashtra and Tamil Nadu.

The State fares badly in terms of most other socio-economic indicators of development. Infrastructure development--both physical and social-- is very poor. The State has the lowest literacy rate among the major States of India--38.5 per cent as against the national average of 52 per cent and Kerala's rate of 91 per cent. Both birth and death rates in the State are higher than the national average. In rural areas the medical facilities are dismal. The number of hospital beds per million persons is only 31 (in 1991) in the State as against 152 for India as a whole. The percentage of households with electricity connection (in 1991) is only 5.6 in the rural areas of the State as against 30.5 per cent for India as a whole.

In the context of pervasive gender inequality, women are disproportionately affected by these phenomena. Girl child mortality in the age group 0-4 years is about 19 per cent higher than that of among male children, contributing to a very low female-male ratio in the State - only 911 per thousand as against an all-India figure of 927. The life expectancy for men in the State (58.2 years) is virtually the same as at an all-India level, whereas for women it is considerably lower

(57.0 years). Female literacy is only 23 per cent as compared to more than 39 per cent for India as a whole.

### **Geographical Divisions**

The State is far from homogeneous with regard to the distribution of its natural resources and growth patterns. It is divided into two distinct topographical units-- the plains and the plateau. The plains are divided into two unequal parts--north Bihar plain and south Bihar plain. North Bihar is very fertile and constitutes about 31 per cent of the area of the State. It has a number of big rivers, and is afflicted with heavy floods resulting in huge damage to life and property. The area is heavily populated -- the density of population in the region is one of the highest in the country.

The Scheduled Castes, although found in sizeable numbers throughout the State, are generally concentrated in north Bihar which contains about 60 per cent of the Scheduled Caste population of the State. The area is predominantly rural, the urban population comprising only 6 per cent of the total population in the region.

The economy lacks diversification and the infrastructural facilities are extremely meagre. Large disparities in irrigation, power consumption, rail and road communications, etc. persist vis-à-vis other regions of the State. It is no wonder, therefore, that north Bihar is an area of endemic poverty, backwardness and unemployment. Consequently, this region sends a large number of migrant labourers from its rural areas to places such as Punjab, Haryana, Delhi and other parts of India. By contrast, the south Bihar plain, constituting 21 per cent of the total area, is more diverse than the north Bihar plain. It is considerably more urbanised than the northern plain, the level of urbanisation being about 15 per cent. The position in regard to infrastructure is also better. Though it is comparatively more industrialised than north Bihar, the level of industrialisation is still quite low.

Further, these regions themselves are economically heterogeneous, a fact that is underlined by the cluster analysis carried out as part of the ANSISS/ILO study (Prasad, Rodgers et al. 1988). The analysis which was restricted to 'north' and 'central' Bihar districts (i.e. the Bihar plains) used population growth and density, urbanisation, tenancy, cropping intensity, use of HYV paddy and tubewell irrigation as variables to categorise districts, and concluded that 'these clusters did not correspond to the traditional North Bihar-South Bihar division...the more

advanced-more backward axis was West to East rather than South to North' (op cit.:46)

The Chotanagpur plateau region has undulating topography and does not suffer from floods and drought to the same extent as other parts of Bihar. But its land is not fertile and barely 30 per cent of the total land is used for cultivation compared to 50 per cent in the State as a whole. Forest accounts for 29.2 per cent of the total area. Poorly served by irrigation (about 10 per cent), its agriculture is carried out almost entirely under rain-fed conditions. The region, however, is richly endowed with natural resources.

About 90 per cent of minerals found in Bihar are located in this region and it has given rise to a number of mines and metal based industries. The level of urbanisation in the region (20.3 per cent) is much higher than that of the other two regions. The region has a high concentration of Scheduled Tribes; as much as 92 per cent of the State's 6.6 million tribal people are concentrated here.

There had been a demand by the indigenous people for the separation of this region from Bihar and the creation of a new State known as "Jharkhand". As one observer puts it, "the immense mineral wealth of the Jharkhand region has been used by outsiders without adequate compensation to the people of the region. Coal, iron, manganese, mica, uranium and a variety of other metals and minerals vital for India's economy has been extracted from Jharkhand without proportionate benefits of development having reached it. The ecological balance of the region has been shattered by emissions from heavy industry, massive dams and hydro-electricity projects and commercial exploitation of forest resources...the indigenous people have been subjected to oppression and cultural humiliation" (Das, 1992:89).

Jharkhand exists as a separate state since 2000.

### **The State's Development Experience**

Bihar has been one of the slowest growing regions in the country. In 1960-61, the State had the lowest per capita income. At present it is also the lowest, and Bihar's relative disadvantage has increased considerably: in 1960-61, Bihar's per capita income was about two-thirds of India's average per capita income; it declined to less than half towards the late 1980s (Mathur, 1994).

The employment structure of the State is characterised by heavy dependence on the primary sector. More than 80 per cent of the entire workforce is engaged in primary activities while only about 4 per cent is engaged in manufacturing and trade each and less than 8 per cent

in services. It is revealing that during 1981-91 the dependence of the work force on agriculture has increased while that on manufacture has declined (Table 3.1). Table 3.2, shows negative growth rates in employment during 1981-91 in sectors like mining and quarrying, manufacturing, construction and transport. Agriculture and allied activities recorded a growth rate of 2.28 per cent, trade 1.83 per cent and services 5.94 per cent. The overall growth rate in employment was 2.13 per cent which was lower than the Indian average (2.37 per cent). The absolute decline in the levels of employment in vital sectors like manufacturing is a matter of concern, although the GDP in the sector showed a reasonably satisfactory growth rate.

Because of this employment structure, Bihar experienced an urban growth of only 38 per cent during 1981-91 as compared to a growth rate of 54 per cent during 1971-81. During 1981-91 there were very few employment opportunities available in the urban areas of Bihar which accounts for intra-state migration (although migration to other States continued).

Unemployment rate as per the time criterion is quite low in the State. According to the 43rd NSS round of 1987-88, the overall unemployment rate as per usual status in rural areas of Bihar was 2.6 per cent for males and 0.8 for females, the corresponding all India rates being 2.8 and 3.5 per cent respectively (although among agricultural labour households, both unemployment and underemployment is high). As against the low overall unemployment rates, the State records highest proportions of people below the poverty line. Thus, though people in rural areas are not openly unemployed, they experience poverty which is induced by low productivity employment.

Bihar has a low percentage of rural workers engaged in non-farm activities. In India as a whole, rural non-farm employment has significantly expanded during 1970s and 1980s. However, Bihar is one of the few States where the expansion has been extremely low--between 1983 and 1987-88, there was hardly any growth in non-farm employment (Chadha, 1993). Owing to poverty and high fluctuation in the availability of employment in the course of the year, a large number of rural labourers and marginal farmers migrate to other States to seek employment.

In the 1990s have manifested changes the structure of employment underwent during the 1980s. After the introduction of the New Economic Policies in 1991, rural areas have borne the brunt of the workforce restructuring process, with agriculture in particular reverting to its traditional role as the residual sector for rural born workers who have not been able to find more

productive non-farm jobs, either in rural areas, or in the cities' (Bhalla, 1997:222). After 1991, not only the rural secondary sector, but all of non-agriculture, suffered a rout....The number of persons who settled for work in agriculture...is roughly four times the number who obtained work in the non-farm sectors from 1987-88 to 1993-94.

Further, with almost 42% of total inter-state migrants in search of work originating in Bihar and U.P. in 1981 (Jha, 1997: 31), the decline in secondary sector employment at an all-India level has inevitably hit the workers of these states particularly hard.

### **Agricultural Labour**

Bihar has a substantial proportion of labour households in rural areas -- one of the highest in the country and substantially higher than the national average. There has been a steady growth in the incidence of wage labour since the early 1970s -- from 39.5 per cent of the workforce in 1972-73, it increased to 40.9 per cent in 1977-78, to 42.8 per cent in 1983, and to 44.2 per cent in 1987-88. As in other States, there has been a phenomenal increase in casualisation of rural labour. In 1972-73, the proportion of casual wage labour to total wage labour was 60 per cent, which has increased to 80 per cent in 1987-88.

Agricultural labourers constitute about 93 per cent of all the rural labour households. The 1991 Census recorded 37.21% of all 'main workers' in Bihar as agricultural labourers. This was the highest proportion of agricultural labourers recorded in any major state with the exception of Andhra Pradesh. This proportion varies considerably within the State, with over 50 per cent of main workers classified as agricultural labourers in some North Bihar districts, with lower rates in the case of Chhotanagpur districts.

Certain specific features of the social and economic situation in Bihar make it particularly likely that the 'main workers' approach leads to an underestimation of agricultural labourers in the state. Firstly, a very small proportion of even those workers who are wholly dependent on agricultural wage labour get employment for more than 180 days per year (Prasad, Rodgers et al, 1987:155; see also Jha, 1997:18 for Purnea District; Bharti, 1991 for Gaya). Secondly, Bihar has a particularly high proportion of small and marginal cultivators -- 77 per cent of operational holdings are one hectare or less, and the average size of holding is 0.3 hectares for this group of holdings in 1991-92 (Government of India, 1995). A significant number of them though enumerated as cultivators in the Census, are dependent on wage labour as their main source of

income. Thirdly, it has been suggested that 'given the status hierarchy in rural Bihar', many of these small and marginal cultivators 'while responding to official enquiries - prefer to get categorised as cultivators and not labourers' (Jha, 1997:115)

A number of observers have pointed to a significant growth in the proportion of agricultural labour in Bihar, as in almost every state, from the early 1970s onwards (Parthasarathy, 1991; Sharma, 1996). Possible reasons for this growth include; firstly, the sharp increase in the proportion of marginal operational holdings, which in Bihar has occurred at the expense of all other size-groups. Secondly, the growth in the proportion of households which are completely landless has also added to it. The proportion of landless households in total rural households in the state has increased from 12.22 percent in 1964-65 to 34.8 percent in 1987-88.

Tenancy, which in Bihar overwhelmingly consists of leasing in by small and marginal cultivators, appears to have declined sharply. The percentage of holdings leasing in land has decreased from 19.7% in 1981-82 to 5.6% in 1991-92, while the percentage of operated area leased in has declined from 10.3% to 3.9% according to National Sample Survey data (Government of India, 1995).

The later figures suggest under-recording of tenancy - for recording of tenancy may be less effective in the 1990s precisely because of a growing tendency for tenants to be changed on a yearly basis. At the same time, in some areas a genuine net decline in tenancy - and particularly share tenancy - may have occurred a counter measure against to mobilisation of the rural poor. In any case, the result has clearly been a decline in secure access to land among the poorest households, increasing their dependency on agricultural wage labour as a source of income.

Other factors affecting the 'viability' of small and marginal holdings - apart from ongoing subdivision and fragmentation - are escalating costs of inputs, and lack of availability of these inputs, giving rise to their appropriation by locally powerful rich peasants. This increases the necessity for small cultivators to sell their labour power in order to survive.

The wage rates of agricultural labourers are extremely low in Bihar. In 1987-88 the daily wage rate of unskilled male agricultural labourer was Rs 13.39, which was lower than most other States. The long-term growth rate in wage rates in Bihar for male agricultural labour over a 30-year period (between 1958-59 and 1987-88) was 8.68 per cent. This growth rate is lower than that in only two States--Kerala and Rajasthan. However, Bihar had a much lower base level of wage rate. After the mid-seventies, real wages went up everywhere, even in states where

agricultural labour productivity was in long-term decline, like Bihar.' (Bhalla 1997:215). Bhalla attributes this increase, which continued till the end of the 1980s, to an increased share of the workforce in non-agricultural employment in each state. In Bihar intra-state, intra-regional unevenness in productivity and the mobilisation of agricultural labourers in the 1980s are key explanatory factors.

A recent study (Jha, 1997) argues that “there is an important data source which seems to suggest that the wage-rate in Bihar has declined” between the late 1970s and 1983-84. Cost of cultivation studies, Jha suggests, point to a decline in the real wage rate for four major crops - wheat, paddy, maize and jute -- for this period despite substantial increases in labour productivity in wheat and maize cultivation (Jha, 1997:117).

It reinforces the view that mobilisation of agricultural labourers in the 1980s and 1990s has been a key factor in bringing about wage increases in Bihar. Movements for higher wages initially took off in pockets of Central Bihar in the early 1980s, as agricultural yields began to increase in these districts. But it was only in the second half of the decade that such movements became widespread enough to have an impact on aggregate wage levels. The successful negotiation of increases in real wages, albeit on the basis of extremely low previous levels, has continued in the 1990s.

In either case, it appears that class-for-itself action by agricultural labourers in parts of Bihar has been able to achieve increases in wage levels. This is despite the collapse of non-agricultural employment leading to a fall in labour productivity in agriculture from the late 1980s. Other significant factors have been changes in rural labour market conditions due to out-migration of workers as well as the State's intervention through wage and self-employment programmes.

### **Land Distribution and Access to Land for Poor Households**

More than 80 per cent of the population are engaged in agriculture in Bihar, a state whose population density is, almost twice the all-India average. Population density is much higher in the North and Central Bihar plains. Combined with a 23.5 per cent growth in population between 1981 and 1991, these figures are enough to confirm that the distribution and use of land is a key question for Bihar's future.

An important source of data on changing patterns of land distribution at the all-India and



state levels has been the National Sample Survey Organisation (NSSO). In particular, NSS rounds eight (1954-55), seventeen (1960-61), twenty-six (1970-71), thirty-seven (1981-82) and forty-eight (1991-92) have contained detailed landholding surveys. The following section looks at data from the 26th, 37th and 48th rounds.

NSS data shows that the average size of a holding in Bihar has declined from 1 hectare in 1982 to 0.75 hectares in 1991-92, as compared to all-India figures of 1.67 hectares and 1.34 hectares. There has been a substantial increase in the number of marginal holdings (one hectare or less) in Bihar during 1970s and 1980s - marginal holdings were 58.86 per cent of total holdings in 1970-71 and increased to 68.7 per cent in 1981-82 and further to 76.76 per cent in 1991-92 (see Table 3.3).

The share of the bottom 60% of landholders in land operated has declined in the 1970s and 1980s confirming the picture of the erosion of access to land for the rural poor in the period. However as Table 3.3 shows, contrary to the experience of states which have undergone capitalist development in agriculture, it has not been accompanied by concentration of operated land in the hands of the top 10 per cent of households.

As Tables 3.4 and 3.5 show, 1980s have seen, firstly, a sharp fall in the relative extent of reported tenancy in Bihar, in terms of both operated area and holdings. Secondly, the marked all-India trend towards leasing-in of land by large holdings which has been associated with the growth of capitalist farming (Parthasarathy 1991) appears to be completely absent in Bihar.

Historically, sharecroppers in Bihar, who emerged 'almost overnight' with the mass eviction of tenants in the wake of Zamindari Abolition (Sengupta 1982:25) have been the most powerless of tenants. Interlocking of share-lease markets with labour and credit markets has been a marked feature of Bihar's agrarian economy (see for example Prasad 1987, Prasad, Rodgers et al. 1988, Bharti, 1990). A study sponsored by the Ministry of Rural Development in 1989-90 found that while in Bihar, as a whole, 66 per cent of sharecroppers surveyed had been leasing-in from the same landlord for more than ten years, and 58 per cent for more than twenty years (Land Reforms Unit, 1990:38), none had been recorded as occupancy tenants. On the other hand, the proportion of tenants who had experienced eviction was highest in Bihar of the six states surveyed (Assam, Bihar, Haryana, Tamil Nadu, U.P. and West Bengal), and this high incidence was linked to "instances of tenants asserting their rights" in Bihar (op cit.:33-4).

## Poverty Levels

The 1980s also witnessed a decline in poverty level in Bihar. During the period 1983-84 to 1987-88, the decline in poverty in Bihar, as per official estimates, was comparable to the all India estimates--8.7 per cent and 7.0 respectively, although levels of poverty were still disturbingly high at 52 per cent. There are several factors behind this decline in poverty level in the State. First, the growth of agricultural output has been relatively better during the 1980s. Second, remittances from migrants working outside the State, which had become quite significant, had given rise to increased consumption expenditure as well as investment in agriculture. Third, poverty alleviation programmes, notably IRDP, NREP, RLEGP and old age pensions, had their impact, albeit small, in this development. Fourth, a rise in the real wages was of course an important factor behind the decline in poverty.

However, according to the quinquennial round of the National Sample Survey from July 1993 to June 1994, the percentage of persons below the poverty line has increased subsequently (Table 3.6). As a result, Bihar's share in the all-India rural poor population has actually increased in the decade 1983-1993 from 16.6% to 19.6% (Chelliah and Sudarshan,1998:14). Planning Commission's Modified Expert Group Methodology puts the level of rural poverty in Bihar at 58.2% (the highest for any State) in 1993-94.

Agricultural labourer households, as well as Scheduled Caste and Scheduled Tribe households are disproportionately represented among the rural poor of Bihar. The incidence of poverty among a large section of cultivators belonging to marginal and small categories is also extremely high. A recent study of the 'sustainability of smallholder agriculture' (Haque, 1996) collected farm-level data from villages in selected districts of Andhra Pradesh, Haryana, Rajasthan and Bihar in 1990-91. The author offers two-fold operational definitions of 'viability' of a farm: 1) where any crop or farm activity shows net positive returns; 2) where the farm generates sufficient income not only for meeting the consumption needs of an average household, but also for saving and investment in future development (Haque, 1996:73). The study concludes that "marginal farms could nowhere generate sufficient income from crop farming alone to stay above poverty line. Marginal farms were found to be non-viable according to both criterion-1 and criterion-2" (op cit.:74). In all the four villages studied in Bihar, the net crop income of both marginal as well as small farms was below the subsistence level calculated at Rs 11,000 p.a.(op cit.:57). It is further noted that "marginal and small farmers depended

mainly on other sources of income for their subsistence” (op cit.: 132). However, in the case of marginal farmers, even when this income was taken into account, the households were operating below the subsistence level in most of the villages.

In the face of acute poverty and immiserisation, the poor of the State, particularly the rural poor, have adopted their own survival strategies and responses. One response is the seasonal outmigration of the rural poor to other places, mostly to other States, both rural and urban. The migration stream consists of both seasonal and long-term migrants, the former largely going to rural areas of developed states and the latter to several urban areas of the country. The incidence of migration is massive from the backward north Bihar, but the tribals of the plateau have also shown a comparatively lesser but nevertheless high incidence of migration. As yet another response, the rural poor have waged concerted struggles under the leadership of revolutionary left parties. While the base of this movement remains strongest in Central Bihar, it is also present in several districts of the Chhotanagpur plateau and some parts of North Bihar (Sharma, 1995 a).

### **Agricultural Performance During 1980s**

It has been pointed out earlier that agriculture performed better during 1980s in the State as compared to the earlier period and, therefore, it would be worthwhile to examine in detail this phenomenon.

During the period 1962-65 to 1975-78 triennia, all the districts in Bihar recorded low (2% or less) growth in overall yields. In terms of foodgrains output, the overall compound growth rate in Bihar between 1962-65 and 1970-73 was only 1.74%, with no district showing high growth rates. Figures suggest that during the period between the triennia ended 1970-71 and 1983-84 this meagre growth rate actually declined further to only 1% per annum (Mahendra Dev, 1988:A-111; Bhalla and Alagh, 1979:29-30; CMIE, 1995).

However, the growth rate increased in some Central Bihar districts from the late 1970s (see for example Prasad, Rodgers et al, 1988), and in the 1980s. The increase was widespread enough to have an impact at the all-Bihar level. GDP contributed by the agricultural sector (which can be taken as an aggregate measure of agricultural performance) grew at the annual compound rate of 2.34 per cent in the eighties as compared to 1.39 per cent in the seventies. As against almost stagnant production in the seventies, foodgrains production during the eighties

increased at the annual compound rate of 3.30 per cent (Table 3.7). This better performance is not uniform across various crops. While production of wheat grew at the rate of 4.52 per cent, the rate of growth of pulses was only 1.47 per cent. The growth rate of rice production was 3.34 per cent and that of coarse cereals 2.74 per cent.

There have been some changes in cropping pattern too. Although there is no visible change in the cropping pattern between foodgrains and non-foodgrains-- area under foodgrains has remained stagnant at nearly 90 per cent of the gross sown area (GSA)-- within foodgrains there is a change in the cropping pattern. Since the development of HYV pulses, ragi, jowar and bajra has lagged behind, they are being replaced by rice, wheat etc. Among non-foodgrains, fruits and vegetables account for 3.95 per cent of total GSA, and oilseeds 8.3 per cent. The rest is under commercial crops like sugarcane, jute, tobacco and other minor crops. Among fruits, mango, banana, leechi and guava are the most important. The proportion of area under these non-foodgrain crops has remained more or less stagnant except that the area under fruits and vegetables rose marginally.

Once again, however, these changes are subject to considerable inter-regional variation within Bihar itself. A recent district-level study (Bhalla and Singh, 1998) finds that while the number of low productivity and low growth districts across the country has declined from 73 between 1962-65 and 1980-83 to only 24 between 1980-83 and 1990-93, seven of these "hardcore problem districts" are located in Bihar. As Table 3.8 shows, these include all the Chhotanagpur plateau districts, as well as a considerable proportion of North Bihar.

The overall growth in foodgrains production, which occurred in the 1980s, does not appear to have been sustained in the post-reforms period of the early 1990s. Foodgrains production averaged 12.04 million tonnes during 1989-90 and 1990-91 but fell to 10.64 million tonnes in 1991-92 and further to 9.17 million tonnes in 1992-93 while food prices rose sharply. This is one of the factors which is likely to have increased the level of poverty in the State during 1991-92 and 1992-93.

### **Changes in Input Use**

The better performance of agriculture in the 1980s can be traced to several factors amongst which rising fertiliser consumption and HYV use and greater irrigation coverage seem to be very important. Fertiliser consumption in Bihar witnessed tremendous growth during the eighties. The

per hectare fertiliser consumption increased from around 20 kgs in the early eighties to nearly 57 kgs by the end of the eighties.

The coverage of irrigation increased from 27 per cent in the early seventies to 34 per cent at the beginning of the eighties and further to 40 per cent by the end of the eighties. Irrigation under foodgrains increased from 26 per cent to nearly 41 per cent during the same period.

Area under HYV also increased rapidly, particularly in the eighties. Area under HYV for foodgrains, which was just 22 per cent in 1970-72 increased to 31 per cent in 1979-82 and more rapidly to 67 per cent during 1987-89. Area under HYV for wheat, paddy and maize were 100 per cent, 68 per cent and 60 per cent respectively in 1987-89. Cropwise, area under HYV for paddy increased from a mere 16 per cent in 1970-72 to 68 per cent in 1987-89. In the case of maize, area under HYV went up from 18 per cent to 60 per cent and for wheat from 71 per cent to 100 per cent during the above period. A major factor behind this spurt in HYV use is near self-sufficiency of the State in the production of HYV seeds. A large number of private dealers started selling the HYV seeds even in remote areas. However, access to new varieties of HYVs remains a problem for small and marginal cultivators, with block-level supplies frequently being appropriated by richer peasants and other locally powerful groups, that are often re-sold in the black market at inflated prices.

Another reason for the accelerated adoption of new technology in Bihar may have been due to migration that provides exposure of new technology in agriculturally advanced states and the part of the remittances working as investible capital in agriculture.

The tempo in the development of irrigation seems to have slowed down since the early 1990s. The potential created by major and medium irrigation schemes has come down drastically after 1989-90 due to reduction in investment. The sharp decline in absolute irrigated area after 1989-90 is primarily due to inadequate maintenance expenses and the overall degradation of the irrigation schemes because of lack of resources, inefficiency and corruption (Sharma, 1995).

In the post-reforms period, fertiliser consumption also shows a marginal declining trend. Wholesale fertiliser prices went up by nearly 50% between 1990 and 1992 alone after remaining virtually unchanged throughout the 1980s (Government of India 1992). Prices of fertiliser in the black market, on which small and marginal cultivators are mostly dependent, were substantially higher.

The credit flow to agriculture in Bihar through financial institutions has also deteriorated

in real terms in the post-reforms period. The total flow of institutional credit to agriculture in Bihar in 1989-90 was Rs 138 crores which marginally increased to Rs 139 crores in 1991-92 and further to Rs 142 crores in 1992-93. In the wake of inflation and rise in fertiliser prices, it certainly denotes a declining availability of credit in real terms.

### **Resource Crunch and Declining Investment**

Bihar is facing an acute dearth of resources. A number of observers have suggested that the financial policies of the Centre have reinforced regional unevenness in India and effectively diverted resources away from Bihar during the last several decades (see for example Prasad, 1989). This process has now been compounded by a complete failure of the State government to mobilise resources internally. The financial crisis is so acute that the State is currently unable to even pay the salaries of its employees regularly. Development expenditure has nearly dried.

According to the Planning Commission, there has been a 'near disastrous' collapse in plan expenditure in Bihar during the Eighth Plan (1992-97). The actual State plan expenditure has turned out to be less than 40% of the projected level, as compared to an average of 81% for all the States.

Stagnating revenues have been the single most important factor behind this crisis. The failure of the State to raise tax and non-tax revenues was compounded by the delay on the part of the Centre in periodically revising the levels of royalties on minerals extracted in the State, which is an important source of revenue in Bihar. As a result, the State mobilised only 3.18 per cent of the projected level of State's Own Resources (SOR) during the Eighth Plan.

It is extremely disquieting to find that during 1993-94 and 1994-95 the percentage of plan expenditure in Bihar to total plan expenditure in all the States of India was even less than 3 per cent whereas the State has got more than 10 per cent of the country's population. The decline in development expenditure has affected some of the most vital sectors of the economy like development of irrigation, investment on which has considerably declined since the early 1990s. The irony is that even this big financial crisis has not deterred the State Government from setting up new universities and administrative centres (like district, subdivision, and block, etc) which are mainly done due to political and caste considerations.

## **Infrastructural Development**

As pointed out earlier, development of irrigation has suffered a set back in the nineties. The public irrigation system mostly tube-well driven has almost collapsed in the state. Because of defective distribution channel, the canal system's potential is also grossly under utilised.

Power and other rural infrastructure is also under severe strain. The per capita power consumption in the State in 1992-93 was only 60.7 kwh. as against 330.6 kwh. for India as a whole and 863.1 kWh for Punjab. On the basis of a conservative estimate, the State was deficit in power as regards its total requirement to the extent of at least 40 per cent in 1993-94. Most parts of the rural area of the State go without power for days together. The overwhelming majority of the State and private tube wells are idle for lack of electricity. The farmers have largely changed over to diesel pumps that are far more costly in terms of maintenance and operating charges.

## **Institutional Constraints and Reform**

Of all the constraints in development of the State, very often institutional ones have been described as the most formidable. In this context, lack of land reforms and proper delivery mechanism have come out to be very important in inhibiting the growth process. Consolidation of holding is rather non-existent in the State. The National Commission on Agriculture noted in 1976 that twenty years after passing of the Act for compulsory land consolidation, only 3% of the total cultivable area of the State was reported to have been consolidated. (Government of India, 1976). By the late 1980s, according to Guru (1988), 475 anchals had been identified for consolidation with a total of 290 lakh acres, of which consolidation had taken place in only 44.3 lakh acres. In the 1990s, the process has come to a virtual standstill. In fact, Bihar's Land Consolidation Department has now been formally abolished (Jha 1997: 108).

Bihar is one of those States in India where the agrarian structure has been very exploitative both in terms of land concentration and insecurity of tenure. Widespread oral tenancy is prevalent in the plains of Bihar. Legislative measures were undertaken to acquire surplus land and safeguard the interests of the tenants with regard to the fixation of rent and ejection of tenants. However, the implementation of these various legislative pro-poor agrarian measures, particularly the land ceiling and tenancy laws, have been dismal. The principal reason for non-implementation has been lack of political will and collusion of the bureaucracy with

landowners.

Land records are consistently falsified from the village level upwards. Essentially, the very unreliability of the official records of landholdings in Bihar is symptomatic of the continuing importance of control over land as a source of rural power, and the intensity of conflicts over it. It reflects firstly a deep-rooted unwillingness among landowners to reveal the measure of their holdings to any representative of the state apparatuses, and secondly an inherent tendency of these representatives themselves to collude with dominant landholders in misrepresenting the situation to the latter's advantage. Given this situation, organisations of the rural poor in the State have put forward the demand for redistribution of land across the board.

Even in cases where poor and landless households have been allotted cultivable holdings, possession of these holdings from larger landowners has often been near impossible except in areas where organisations of the poor peasants and agricultural labourers are strong. However, it is important to note that whenever such households have acquired land, in however small a quantity, whether through allotment by the State or through mass occupation of 'gair mazarua' common land illegally encroached by large landowners, there has occurred some perceptible change in the socio-economic status.

So far as tenancy is concerned, many researchers have highlighted the inter-linkage between tenancy, especially sharecropping, indebtedness and bonded labour, which perpetuates the process of economic stagnation in the countryside and immiserisation of the poor. In spite of the large number of tenants in the plains of Bihar, who are mostly poor peasants and agricultural labourers, their pitiable conditions both with regard to security of tenure and fixation of rent have hardly figure in any effective intervention of the Government machinery.

### **Education, Health and Social Security**

No other State has been as indifferent as Bihar in providing basic education and health facilities, which is borne out the by its lowest literacy and dismal health care infrastructure. The failure of the State to develop an adequate and proper public policy on education and health is one of the basic reasons behind the social and economic backwardness of the State and the persistence of mass poverty.

Bihar's per capita State expenditure on education is quite low. The per capita expenditure in 1992-93 was Rs. 148.8 whereas the average per capita expenditure in the case of all States



taken together was Rs. 231.3. However, it is not the quantity of expenditure, but the policy and pattern of expenditure along with the quality of education which has affected the State. In 1961, Bihar's male literacy rate was higher than several States but over time the neglect of primary education has pushed it to the bottom. The gap between the enrolment ratio in classes I to V and in classes VI to VIII signifies high incidence of dropouts to meet the need for supplementation of family income. There has been a remarkable apathy towards expanding elementary education and improving its quality as there has been no demand for it by political parties. Further more, its need is not felt by the dominant social section which is interested in expanding secondary and higher education, especially the latter, so as to further its class interests and enhanced its ability to distribute social and political patronage. During 1951-1991, the extent of provision of primary education provision increased by about three times and secondary education by 8.5 times, whereas higher education has increased by as much as 12 times in the same period (Singh, 1995). Even this limited quantitative expansion of primary education does not reflect the true picture. The overall quality is extremely poor--schools without buildings and other teaching materials, low teacher-pupil ratio, and, above all, a culture of teachers not even attending the schools, particularly in rural and backward areas, etc. are disturbingly widespread in the State. Ironically, over the last decade or so, the higher education system has become even more dysfunctional than the primary education system. According to an estimate, around 35 thousand students of the State are having higher education in other states and more than 90 per cent of them are in the general education. (Singh, 1995).

There have been some attempts at spreading primary and adult education in recent years. An ambitious Bihar Education Project with assistance from UNICEF and Government of India has been in operation for the last five years. Although in some pockets its results have been reported to be satisfactory, the so-called 'literacy movement' has not become a genuine movement in the State.

So far as health is concerned, the existing health care system in Bihar not only suffers from inadequacy of resources, but also sub-optimal utilisation of resources, thereby creating a vacuum which is now being filled increasingly by the private health arrangements. The level of per capita Government health expenditure in Bihar is very low. For example, during 1990-91 it was the lowest (Rs. 51) in India - not even half of the national average of Rs. 117. Apart from the inadequacy of resources, some of the key components of health expenditure like water supply

and sanitation or welfare of children and people with disabilities receive very little attention in the State. The emergence of private health care system on a large scale in Bihar is primarily due to the extremely poor states of the public health care system. In rural Bihar, for example, more than 40 per cent each of the non-hospitalised and hospitalised illnesses is treated by private doctors. In the urban areas, the dependence on private doctors is even more--no less than 59 percent of the non-hospitalisation cases and 34 per cent of the hospitalised cases are taken care of by private doctors there (Sunder, 1995). The most important implication of a private health care system is the escalation of cost for health care, of which the poor are naturally the worst victims. More than the size and level of the public health care system, it is the efficiency of the system which is rather in bad shape.

In spite of the existence of mass poverty and destitution the State has initiated very few social security measures for the workers in the unorganised sector and the elderly. The old age pension scheme, which was introduced towards the end of 1970s, is the only social security scheme worth mentioning which has a fair coverage in the State. However, even after more than two decades since its introduction, the scheme has failed to cover all the eligible persons under the scheme. Moreover, the amount of pension that was Rs. 30 per month in the late 1970s has not kept pace with inflation and the present amount is merely Rs. 100 per month. Furthermore, the beneficiaries have not got even regular payment during the last three-four years.

Food security through the public distribution system (PDS) is yet another area of concern. Inter-regional biases in the distribution of PDS supplies have been brought out by many empirical studies. States such as Bihar with a high incidence of poverty are seen to receive a lower share of PDS supplies. Within the State itself, not only is there large-scale corruption in the distribution of essential commodities, but its coverage is also confined to some pockets of urban areas. The data collected by NSSO (1990) show that in rural Bihar, the percentage of outlay on purchase from PDS to total purchase was 0.42 in the case of rice and 1.51 in the case of wheat; the corresponding figures for urban areas were 0.29 and 7.05 respectively. Disaggregating the figures for the poor and non-poor during 1986-87, the percentage of cereals purchase from PDS to total purchase (PDS+open market) was only 0.69 per cent for the poor and 0.88 per cent for the non-poor in rural areas of Bihar, the corresponding figures for urban areas being 1.22 per cent and 3.53 per cent respectively. These percentages for the poor and non-poor

in rural India were 29.14 and 27.03 respectively and 26.82 and 21.46 respectively for urban India

The Integrated Rural Development Programme (IRDP) and Jawahar Rojgar Yojana(JRY) are the most comprehensive self-employment and wage employment programmes in the State. These programmes have several defects and their implementation has been far from satisfactory. Wrong selection of beneficiaries, non-linkage with the other programmes, bypassing of the Gram Sabha, lack of proper after care support and monitoring, etc. as well as corruption, are the commonly cited defects of IRDP which are found in other States as well, but their incidence seems to be greater in Bihar. Similarly, there are several defects in the wage employment programmes like non-payment of prescribed minimum wages, creation of low quality and unproductive assets, etc. In the absence of a functioning Panchayat system, these programmes are hijacked by private contractors leading to underutilisation and misappropriation of funds. However, in spite of all the defects, these two programmes have had some positive impact. As a matter of fact, IRDP and JRY, and particularly the latter, is the most visible rural development programme in the State. A significant percentage of the poor, in spite of defects in selection and other procedures, have been able to get productive assets in rural areas through which many of them have been able to enhance their income. Even in the case of poor women there are instances of success stories of group mobilisation of women for productive purposes through DWACRA (Prasad, 1995). So far as the wage employment programme is concerned, the implementation aspect has improved over the years, particularly after the execution of JRY through Panchayats (Sharma, 1995b). During the last few years JRY has seen expansion in several respects in terms of funds allocated and utilised as well as mandays of employment generated. On the whole, the programme has generated 5,242 lakh mandays of employment during 1989-90 to 1993-94 (GOI, 1995, p.103). In spite of several defects, the programme has made an impact in rural areas in several ways by providing employment, however small; constructing houses for the poor under Indira Awas Yojana; and creating at least some social and physical infrastructure like school buildings, drainage, village roads, etc. Apart from these direct benefits, these two programmes have also some indirect benefits like raising the consciousness of the poor, influencing the rural labour markets in terms of raising wages, etc., which are equally important for the poor.

### **Change and Response of the Poor**

The non-development syndrome and perpetuation of poverty have generated widespread discontent among the poor, leading to occasional violence in several parts of the state. In fact the organisation and mobilisation of agricultural labourers and poor peasants on a large scale in some parts of the State during the last two and a half decades have important social and economic implications for the State. The main focus of this movement has been wages, forced attachment of labour through debt, land redistribution, particularly that of 'gair mazarua' land illegally occupied by rich landowners, and caste-based or 'social' oppression. In many villages, mobilisation began around women's resistance to rapists of the higher castes / land-owning classes. As we have noted, the movement has achieved significant increases in wages of agricultural labourers. In areas where it is strong, there has also been better implementation of land reforms and poverty alleviation programmes and a decline in corruption (Sharma 1995a). Perhaps, the most striking aspect of the movement is that it enabled the dalit poor and landless to challenge the practices which underpin the social and economic authority of both the older and the more recently emerged dominant classes. One aspect of this has been the struggle of the rural poor to exercise their franchise, a right which has long been denied to them by those with power throughout the State.

Thus, Bihar presents a dismal picture where development has been the casualty. Although changes are visible in some pockets, the poor of the state have witnessed very little change in their fortunes. In the wake of their increased mobilisation and expectations, it has resulted in devising their own social mechanisms. Migration to other areas in search of livelihood and mobilisation are the two most important strategies that the poor have resorted to. These two have their own implications for understanding the non-development syndrome as well as towards offering possible solutions in this regard.

**Table 3.1: Sectoral Share in GDP and Employment during 1980-81 and 1990-91 in Bihar.**

Activity	Employment		GDP	
	1981	1991	1980-81	1990-91
Agriculture and Allied	79.88	81.10	45.9	38.8
Mining and Quarrying	1.63	1.26	4.6	5.2
Manufacturing	6.37	4.01	15.2	19.9
(i) Registered	3.98	2.26	8.1	14.1
(ii) Unregistered	2.39	1.75	7.1	5.8
Construction	0.81	0.63	5.3	5.7
Trade and Commerce	4.12	4.00	8.4	10.1
Transport	1.84	1.28	7.1	7.3
Other Services	5.35	7.72	17.0	17.4

Total 100.00 100.00 100.00 100.00

Source: Exercises done by the LEM Division, Planning Commission.

**Table 3.2: Sectorwise Employment Growth (Census 1981 and 1991), GDP Growth (constant Prices, 1980-81 & 1990-91) and Employment Elasticities in Bihar and India.**

Sector	Bihar			India		
	GDP	Employment	Elasticities	GDP	Employment	Elasticities
Agriculture	2.33	2.28	0.98	3.58	2.06	0.58
Mining and Quarrying	6.71	-0.45	-0.07	7.78	3.02	0.39
Manufacturing	7.87	-2.50	-0.32	7.51	1.30	0.17
Construction	6.65	-0.36	-0.05	4.31	4.00	0.93
Transport	4.96	-1.48	-0.30	6.93	2.59	0.37
Trade	5.50	1.83	0.33	5.75	4.07	0.71
Services	5.53	5.94	1.07	6.50	4.22	0.65
All sectors	4.75	2.13	0.45	5.53	2.37	0.43

Source: Exercises done by the LEM Division, Planning commission.

**Table 3.3: Percentage of Operational Holdings and Area Operated by Size-Class of Operational Holdings, Bihar and All-India, 1970-71 to 1991-92**

(in percentages)

		Marginal	Below 1.01 hec.	Small	1.01 to 2.00 hec.	Semi-Medium	2.01 to 4.00 hec.	Medium	4.01 to 10.00 hec.	Large	Above 10.00 hec.
State	Year	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area
Bihar	A1970-71	58.86	18.14	23.32	26.22	12.85	28.92	4.52	21.01	0.45	5.71
	B1981-82	68.7	22.41	17.61	25.85	9.9	27.08	3.38	18.79	0.41	5.87
	C1991-92	76.76	29.01	13.68	25.14	6.86	23.69	2.48	18.24	0.22	3.92
All-India	A1970-71	45.77	9.21	22.38	14.8	17.66	22.52	11.11	30.49	3.08	22.98
	B1981-82	56	11.5	19.32	16.59	14.23	23.55	8.56	30.15	1.89	18.21
	C1991-92	62.79	15.6	17.79	18.7	11.99	24.13	6.1	26.37	1.33	15.2

Source :NS

**Table 3.4: Percentage of area leased in by size-class of holdings, all-India and Bihar, 1981-82 and 1991-92**

Category	INDIA				BIHAR	
	60-61 (17th)	70-71 (26 <sup>th</sup> )	81-82 (37th)	91-92 (48th)	81-82	91-92
Marginal	16.6	18.9	9.7	8.7	13.62	6.18
Small	14.0	14.6	8.5	8.5	15.79	5.47
Semi-medium	11.7	11.7	7.3	7.4	7.90	2.86
Medium	9.6	8.7	6.6	6.9	5.31	0.34
Large	8.3	5.9	5.3	11.4	0.11	-
All categories	10.7	10.6	7.2	8.3	10.27	3.91

**Table 3.5: Percentage of Tenant Holdings by Size-Class of Holdings, All-India and Bihar, 1981-82 and 1991-92**

Categories	INDIA				BIHAR	
	60-61 (17th)	70-71 (26th)	81-82 (37th)	91-92 (48th)	81-82	91-92
Marginal	24.1	27.0	14.4	9.6	17.66	7.14
Small	25.1	27.8	17.9	14.9	30.89	10.67
Semi-medium	23.6	24.8	15.9	12.2	17.20	7.05
Medium	20.5	20.0	14.5	13.1	11.78	1.44
Large	19.5	15.9	11.5	16.7	6.61	-
All categories	23.5	25.7	15.2	11.0	19.73	7.46

**Table 3.6: Number and Percentage of Poor in Bihar and India in Various Years (Modified Expert Group Methodology)**

	Rural		Urban		Combined	
	No. of persons (lakhs)	% of persons	Nop. Of persons (lakhs)	% of persons	No. of persons (lakhs)	% of persons
<u>Bihar</u>						
1973-74	336.52	62.99	34.05	52.96	370.57	61.91
1977-78	364.48	63.25	37.34	48.76	401.82	61.55
1983	417.70	64.37	44.35	47.33	462.05	62.22
1987-88	370.23	52.63	50.70	48.73	420.93	52.13
1993.94	450.86	58.21	42.49	34.50	493.35	54.96
<u>India</u>						
1973-74	2612.91	56.44	600.40	49.01	3213.36	54.88
1977-78	2642.47	53.07	646.48	45.24	3288.95	51.32
1983	2519.57	45.65	709.40	40.79	3228.97	44.48
1987-88	2318.79	39.09	751.69	38.20	3070.49	38.86
1993.94	2440.31	37.27	763.37	32.36	3203.68	35.97

Source : Planning Commission, Government of India, New Delhi

**Table 3.7: Agricultural Production**

Period	Rice			Wheat			Coarse cereals		
	Area	Prod-	Yield	Area	Prod-	Yield	Area	Prod-	Yield
1970-73	5134	4631	902	1741	2296	1319	1497	985	658
1979-82	5339	4496	842	1700	2131	1254	1301	1045	803
1989-91	5329	6450	1210	1977	3465	1753	922	1408	1527
Growth Rate (%)									
70's	0.36	-0.27	-0.63	-0.22	-0.1	0.12	-1.26	0.54	1.8
80's	-0.02	3.34	3.36	1.48	4.52	3.04	-3.08	2.74	5.82
Period	Maize			Pulse			Food grains		
	Area	Prod-	Yield	Area	Prod-	Yield	Area	Prod-	Yield
1970-73	890	682	766	1555	844	543	9927	8756	882
1979-82	854	808	946	1291	746	578	9631	8428	875
1989-91	680	1130	1662	1191	876	736	9419	12040	1278
Growth Rate (%)									
70's	-0.04	1.55	1.59	-1.67	-1.12	0.55	-0.27	-0.42	-0.15
80's	-2.05	3.1	5.15	-0.84	1.47	2.31	-0.2	3.3	3.5

Note: Area in 000 hectare; production in 000 tonnes and yield in kg.

Source: Agricultural Statistics in India.

**Table 3.8: Cross Classification of Districts by Level of Field for 35 Crops during 1962-65 and Output Growth Rate Categories during 1962-65 to 1980-83**

Output (Rs. Hectare) at 1990-93 prices during 1962-65	Output Growth Rate Category: 1962-65 to 1980-83		
	More than 3.5 per cent	1.5 to 3.5 per cent	Less than 1.5 per cent
More than Rs. 8000			
Rs. 5000-8000			
Less than Rs. 5,000	Monghur, Saran	Champan (E), Saran	Bhagalpur, Patna, Darbhanga, Purnea, Hazipur, Ranchi, Gaya, Dumka, Monghur, Bhojpur, Muzaffarpur, Singhbhum, Palamau
More than Rs. 8000			
Rs. 5000-8000		Champan (E), Bhojpur	Patna
Less than Rs. 5000		Darbhanga, Gaya, Purnea	Bhojpur, Hazipur,, Muzaffarpur, Palamau, Ranchi, Dumka, Singhbhum

Note: Districts created since 1962-65 has been merged with original districts from which they were constituted.