

A Study on Rural Poverty in Gangetic Plains Profile and Determinants

PRABHAT P GHOSH



Asian Development Research Institute

Monograph 01/2003

**A Study on
Rural Poverty in Gangetic Plains**
Profile and Determinants

PRABHAT P GHOSH



Asian Development Research Institute

©Copyright

Asian Development Research Institute (ADRI)

Publisher

Asian Development Research Institute (ADRI)

BSIDC Colony, Off Boring-Patliputra Road

Patna - 800 013 (BIHAR)

Phone : 0612-2265649

Fax : 0612-2267102

E-mail : adri_patna@hotmail.com

Website : www.adriindia.org

Printed by

The Offsetters (India) Private Limited

Chhajjubagh, Patna-800001

Study Sponsored by

International Fund for Agricultural Development (IFAD), New Delhi Office

Disclaimer

This monograph may not reflect the views held by the Asian Development Research Institute (ADRI) or any of its sister concerns. Usual disclaimers apply.

EXECUTIVE SUMMARY

1. The vast area of MGP is one of the victims of regional disparities in development, where both, the growth process as well as the pace of rural poverty reduction, have been much slower than elsewhere in India. Comparable estimates relating to the year 1993-94 show that while the rural poverty ratio was 36.7 percent for India as a whole, it was much higher at 51.8 percent in MGP.
2. Unlike other poverty-stricken regions in the country, the resource base of this river valley region is very substantial — natural fertility of the soil is very high, water resources are abundant here and the region also enjoys a high level of bio-diversity. But, unfortunately, this natural advantage is more than negated by a number of other factors — demographic, economic, and structural, all inhibiting the growth of its rural economy and causing very high levels of rural poverty.
3. The demographic pressure on its land resources is one of the highest in whole of the country and even in the world — 803 persons per sq km, more than two-and-a-half times the national average of 324 persons per sq km. In terms of rural population per hectare of cultivated area, this demographic pressure is relatively less, but it is still twice as much. While a hectare of land is required to support only one rural family for the whole of the country, in MGP it has to support two rural families and in some parts, it is even three rural families.
4. The functioning of its rural economy is also very traditional, thanks to the tenurial system of Permanent Settlement, introduced during the colonial period. Although the statutory base of this unproductive tenure system was removed after independence (in both Uttar Pradesh and Bihar), it was not able to alter the extremely inequalitarian land distribution pattern. Nearly 70 percent of the rural households in MGP are either landless or own less than one acre of land. A large part of the land here is cultivated not by its owners, but by sharecroppers. Further, a very large number of agricultural holdings here is so small that their owners are unable to cultivate it using modern agricultural inputs. Land is the principal source of livelihood in rural areas and it is, therefore, not surprising that the rural poverty ratios are one of the highest in MGP.
5. Besides demographic pressure and iniquitous land distribution, the rural economy of MGP also suffers from another disadvantage, because of the high flood-

proneness of the area. Nearly two-thirds of the area under MGP is flood-prone, causing frequent damages to property and, more importantly, deterring agricultural investments.

6. Rural poverty ratios have declined elsewhere because of accelerated growth process of the agricultural economy, promoting non-farm activities and strengthening the poverty alleviation programmes. But except for some moderate growth in its agricultural sector, MGP has not much witnessed other poverty-reducing activities and, therefore, the pace of poverty reduction here has always been slower.
7. Both the growth process and the poverty alleviation programmes are of immense relevance for poverty reduction. Admittedly, some studies using aggregate national-level data have emphasized the greater role that the growth process has played in reducing rural poverty in recent period; but the disaggregated data for backward regions like Uttar Pradesh and Bihar clearly indicates that the contribution of growth of aggregate output to poverty reduction is much limited here. If one analyses the experience of the eighties, it further points to the substantial potential of properly implemented PAPs towards reducing poverty.
8. In the past, all interventions towards poverty reduction had been made by the government, yielding limited results during the eighties, and even more so during later years. Fortunately, a large number of NGOs have appeared during the nineties whose commitment, flexibility and professionalism together have often resulted in more cost-effective and efficient PAPs throughout the country, including Uttar Pradesh and Bihar. Any serious policy exercises for poverty reduction should, therefore, consider making extensive use of these NGOs to ensure the success of PAPs, and in the process, indirectly enhance the capacity of these NGOs to undertake bigger developmental roles in future.
9. For a long time, PAPs had primarily aimed at providing material benefits to the poor, either free or at subsidised rates. Such efforts rarely promote the concept of 'self help' without which it is not possible to make a lasting impact on poverty. Many programmes of the nineties aimed at providing enabling services to the poor, specially when managed by NGOs, have been successful in many places including Uttar Pradesh and Bihar. The PRIs and SHGs are two such potent strategies for promoting structural changes in rural society which could enable the rural poor to help themselves.

SECTION I

INTRODUCTION

1.1 Profile of the Gangetic Plain

Originating from the western part of the Himalayas, the river Ganges travels a long distance of about 2500 kms to finally join the Bay of Bengal. In the beginning, the river passes through the mountainous region for the first 250 kms of its journey, at the end of which it reaches the plains at Rishikesh in the north-western part of Uttar Pradesh. Thus, the Gangetic Plain spans the remaining length of 2250 kms of the river, covering central and eastern parts of Uttar Pradesh, the entire state of Bihar, and the southern part of West Bengal -- an area of about 287.0 thousand sq kms. The most characteristic feature of this region is its extreme horizontality; it is a monotonous plain comprising mostly sands and clays and, over the whole region, the soil is uniformly fine grained. As the alluvial plain on both sides of the river has been formed by the silt carried out by this mighty river and its tributaries, it is one of the most fertile areas in the country. Physiographically, this large area of Gangetic Plains is generally divided into three parts — (i) Upper Gangetic Plain (770 kms), falling entirely in central Uttar Pradesh; (ii) Middle Gangetic Plain (1005 kms), divided between eastern Uttar Pradesh and entire Bihar; and (iii) Deltaic Gangetic Plain (470 kms), falling entirely in West Bengal. Except for some districts of West Bengal, the rural economy of the entire region is rather weak; however, from the perspective of an analysis of rural poverty, it is the Middle Gangetic Plain (MGP) that undoubtedly merits a special attention, because an extreme level of poverty in this part coexists with a natural resource base that is rich in terms of both soil fertility as well as irrigation potential. Taking into account both, the administrative divisions and agro-climatic characteristics, MGP can be divided into three sub-regions — Eastern Uttar Pradesh (19 districts), North Bihar (20 districts) and South Bihar (14 districts) (Table 1). Spread over an area of about 184.0 thousand sq kms, the region is inhabited by 148 million people. The share of the region in country's total area is only 5.6 percent, but no less than 14.5 percent of its population resides here, making it one of the most densely populated regions.

Several convincing indicators are there pointing to the extreme backwardness of the region. Consider, for example, the fact that among the top 10 agro-climatic regions in India in terms of

Table 1 : List of Districts of Uttar Pradesh and Bihar under Middle Gangetic Plain

Agro-climatic Regions	Districts
Eastern UP	Baharaich, Gonda, Faizabad, Sultanpur, Allahabad, Pratapgarh, Varanasi, Ghazipur, Jaunpur, Azamgarh, Mau, Ballia, Gorakhpur, Deoria, Maharajganj, Basti, Siddharthnagar, Mirzapur, Sonbhadra (19 districts)
North Bihar	W. Champaran, E. Champaran, Saran, Siwan, Gopalganj, Sitamarhi, Muzaffarpur, Vaishali, Samastipur, Darbhanga, Madhubani, Saharsa, Madhepura, Supaul, Purnea, Katihar, Kishanganj, Araria, Khagaria, Begusarai (20 districts)
South Bihar	Patna, Nalanda, Bhojpur, Buxar, Rohtas, Kaimur, Gaya, Jehanabad, Aurangabad, Nawada, Munger, Jamui, Bhagalpur, Banka (14 districts)

Table 2 : Ten Agro-climatic Regions in India with Highest Incidence of Rural Poverty (1993-94)

Regions	Percentage of poor hhs.	Percentage of severely poor hhs. to all poor hhs.
Southern Orissa	69.0	49.4
South-western Madhya Pradesh	68.2	61.9
Jharkhand	62.4	50.6
North Bihar	58.7	47.1
South Bihar	54.0	45.6
Central Madhya Pradesh	50.1	50.6
Central Uttar Pradesh	49.4	53.4
Inland Central Maharashtra	50.0	57.8
Inland Eastern Maharashtra	48.8	38.2
Eastern Uttar Pradesh	48.6	47.7

Note : In Western Plains Assam, 49.9 percent rural households are poor, but since percentage of severely poor households to all poor households is relatively less (30.0 percent), it is not included in the above list.

Source : NIRD (2000)

highest rural poverty are included all the three agro-climatic regions that together comprise the MGP, viz. Eastern Uttar Pradesh, North Bihar and South Bihar (Table 2). Thus, MGP possibly forms the largest 'poverty patch' on the Indian map, both in terms of area and even more so in terms of the size of the inhabiting population. Most other agro-climatic regions in India where rural poverty is severe are all parts of the central Indian plateau where the land is rather infertile and the infrastructural support minimum. The acute rural poverty in MGP is striking in the face of the high fertility of its agricultural land and immense bio-diversity of its vegetation pattern.

Yet another comparative analysis (this one using district-level data on both economic and social indicators) that clearly indicates the vulnerability of the region is a list of ‘100 most backward districts of India’ (Appendix I); in this list are included 5 of the 19 districts of Eastern Uttar Pradesh, all the 20 districts of North Bihar and 8 of the 14 districts of South Bihar; in other words, 33 out of a total of 53 districts in MGP are among the 100 most backward districts of India.

With barely one-fourth of its total population residing in urban areas, India is essentially a rural country. There also exists a sharp and persisting duality between the economies of its rural and urban areas; nearly three-fourth of the Indian population residing in rural areas is able to produce only about one-third of the national income. This obviously makes the rural population far more vulnerable to poverty than their urban counterparts. For the vast area of MGP, this ruralness, however, is a much stronger phenomenon, its urbanisation level being just 11.0 percent (Table 3). The population here is essentially dependent on the low-productivity agricultural sector, supported very modestly by some income from the tertiary sector generated in the district towns and very marginally by income from the extremely small secondary sector. This economic disadvantage of the region is well reflected in its social status, specially the literacy levels and the demographic behaviour. The 2001 census records the literacy levels in MGP to be 50.4 percent which is lower than the national literacy level of even 1991 (52.0 percent), not merely the recent level (65.0 percent). In other words, the region is more than a decade behind the overall nation with respect to its literacy status. The gender differences in literacy are also wider in MGP (27.5 percentage points) than in the country as a whole (21.6 percentage points). During the nineties, the country as a whole had experienced a social momentum for the spread of literacy and the literacy rate had increased by 13 percentage points between 1999 and 2001. Unfortunately, this social momentum was much less in MGP, particularly in North and South Bihar. The overall literacy rate, in contrast, had increased there by about 10 percentage points only. The widespread poverty and illiteracy together have meant that the demographic behavior of the people is still traditional; the decadal growth rate of population in MGP (1991-2001) was as high as 27.7 percent, much outstripping the national growth rate of 21.3 percent. The growth rate in North Bihar was even higher at 29.3 percent. Such high growth rates of population in an area which is already very densely populated can only mean even more pressure on its natural resource base.

Table 3 : Broad Statistical Profile of Middle Gangetic Plain

	Middle Gangetic Plain				India
	Eastern UP	North Bihar	South Bihar	Overall	
Area (‘000 sq km)	85.8	55.3	42.9	184.0	3287.3
Population (million) (2001)	66.6	51.2	29.8	147.7	1027.0
Sex ratio (2001)	946	931	910	931	933
Decadal growth rate of population (1991-01)	26.1	29.3	27.7	27.7	21.3
Density of population (2001) (persons / sq km)	776	926	695	803	324
Urbanisation (2001)	11.7	6.7	14.0	11.0	25.7
Literacy Rates (2001)					
(a) Male	68.9	55.3	67.7	64.2	75.9
(b) Female	38.4	28.9	39.6	36.7	54.3
(c) Persons	53.6	42.1	53.6	50.4	65.4
Disadvantaged Population (1991)					
(a) Scheduled caste	22.0	14.6	18.4	18.6	16.5
(b) Muslims	20.4	21.2	9.4	17.0	12.1

Although the three sub-regions of Eastern Uttar Pradesh, North Bihar and South Bihar are all part of MGP and share a number of agro-climatic commonalities, they are not equally backward, either economically or socially. Of the three regions, North Bihar is undoubtedly the most backward region, as reflected through its lowest urbanisation level (6.7 percent), the lowest literacy rate (42.1 percent) and the highest decadal growth rate of population (29.3 percent). The level of rural poverty in North Bihar (58.7 percent) is also the highest among the three sub-regions of MGP. Such retarded growth of the region can be partly attributed to some specific natural disadvantages that the region suffers from, but as discussed later, some historical phenomena of the colonial period as well some policy lapses during the post-independence period have only added to that woe, instead of lessening it. The level of (non) development in two other regions are probably the same as their respective urbanisation levels, literacy rates and demographic trends indicate; however, the conditions in Eastern Uttar Pradesh can probably be considered as slightly better, particularly because the poverty ratio there (48.6 percent) is noticeably lower than in South Bihar (54.0 percent). Apart from the consideration that the population pressure on land is relatively less in Eastern Uttar Pradesh, the agricultural productivity in the area is also much higher, both together making its rural economy relatively more prosperous and the poverty level there comparatively lower.

1.2 Technical Base of Rural Economy

In the context of MGP, it is probably not very necessary to be mindful of the dichotomy between the rural and urban economy. With the urbanisation level at barely 11.0 percent, it is safe to assume that the entire economy is rural, with the economy of the administrative towns/centres providing it with only a modest income support. The general orientation of the development planning in India has all along been towards industrialisation, allowing only marginal improvements in technical base of its rural economy and the consequent persistence of the rural poverty. It is quite apparent from the following description of the technical base of rural economy of MGP how serious have been the consequences of such industrial bias of Indian planning. For a clearer understanding, it would be meaningful to describe this technical base along two of its major dimensions — land and water — and then assess the strength of its rural economy in terms of the prevailing agricultural productivity.

Land

The most striking feature of the MGP is the acute population pressure on its land. In contrast to a national density of population being only 324 persons per sq km, it is as high as 803 persons per sq km in the MGP, nearly two-and-a-half times (Table 4). Indeed, except for the Indonesian island of Sumatra, no other region in the world is as densely populated as the MGP. This is obviously because the soil of entire MGP is alluvial in nature whose high natural fertility had attracted populations over centuries, resulting in its high population density. Among the three sub-regions of MGP, it is the North Bihar plains where the density of population is the highest (926 persons per sq km) and, quite expectedly, the poverty ratio is also the highest in this sub-region. The sub-region of Eastern Uttar Pradesh, also lying to the north of the river Ganges, has the next highest population density (776 persons per sq km), with South Bihar having the least population pressure on land (695 persons per sq km). Thus, the population pressure on land is more in the northern part of the MGP than in the south.

Part of this overall pressure on land is, however, mitigated because of a higher availability of land for cultivation in riverine plains like MGP. While for the country as a whole, only 43.4 percent of its total area is available for cultivation, the ratio reaches a much higher level at 60.8 percent for the MGP. For Eastern Uttar Pradesh, North Bihar and South Bihar, these ratios stand at 65.2, 61.6 and 51.2 percent, respectively. However, even if one considers ‘rural population per hectare of net cultivated area’ as a more sensitive indicator of population pressure of land, it is seen that this pressure is twice higher in MGP than in India as a whole. Assuming that one rural family has about 5-6 members on an average, the figures would

suggest that while one hectare of land supports only one rural family for India as a whole, it has to support two rural families in MGP and, in North Bihar, the same amount of land is required to sustain nearly three rural families.

Table 4 : Pressure on Land in Middle Gangetic Plain

	Middle Gangetic Plain				India
	Eastern UP	North Bihar	South Bihar	Overall	
Land Endowment					
Area (^000 sq km)	85.8	55.3	42.9	184.0	3287.3
Cultivated area					
(a) Net area sown (^000 ha) (2001)	5591	3408	2195	11194	142500
(b) As percentage of total area	65.2	61.5	51.2	60.8	43.4
Population					
Total population (million) (2001)	66.6	51.2	29.8	14.76	1027.0
Rural population (million) (2001)	57.8	48.2	26.0	132.0	741.7
Pressure on land					
(a) Population/ sq km of area	776	926	695	803	324
(b) Rural population/ hectare of net cultivated area	10.3	14.1	11.8	11.8	5.2

An analysis of the technological dimensions of the agricultural sector in the MGP, as done later in this Section, would clearly indicate that the land productivity in MGP is very low because its agriculture is basically subsistence-oriented and largely rain-fed. With improved farming practices, the 'carrying capacity' of its fertile land can certainly be enhanced to a much higher level, possibly to feed adequately its entire current rural population; but this technological 'potential' should not deter one from concluding that the population pressure on land is indeed very high in MGP and this should be regarded as one of the important determinants of acute rural poverty in the region.

Water

By virtue of being a riverine area, the water resources of MGP are indeed very high in terms of both surface and ground water endowments. Besides the main river - the Ganges - there are a large number of smaller rivers which all originate from the Himalayas (mostly in Nepal) and then after flowing across a length of about 200-300 kms meet the Ganges from the northern side. These small rivers are relatively more in North Bihar than in Eastern Uttar Pradesh. The Ganges hardly receives any major tributary till it is joined by Ramganga in Kannauj. But, thereafter, from Allahabad downwards the river receives several major tributaries at frequent intervals. Consequently, the volume of its water flow rises rather rapidly at each confluence. By the time it reaches Patna, the flow of the Ganges assumes a sizable volume of 240.5 billion

cubic meters per year. The Middle and the Deltaic Plains of the Ganges, therefore, are more turbulent and susceptible to floods, soil erosion and siltation. The major tributaries that join the river at various points are Ramganga, Gomti, Ghagra, Gandak, Burhi Gandak, Bagmati, Kamla Balan and Kosi. The surface water of two of these rivers in North Bihar (Gandak and Kosi) are used for feeding two canal irrigation networks, one at the north-west and other at north-east Bihar. In South Bihar, such small rivers are even less, but at least one of them (Sone) is very important, being the source of another extensive canal irrigation network, benefiting a large part of this sub-region. Since groundwater is available at rather low depths, a large part of the cultivated area in MGP is also irrigated through tube wells in Eastern Uttar Pradesh, North Bihar as well as South Bihar. Indeed, the groundwater is so easily available in North Bihar that shallow tube wells are in large numbers there, some of them even using ‘bamboo-boring’. But in spite of such abundance of water resources, the irrigation intensity in MGP (Gross Irrigated Area as Percentage of Gross Sown Area) is only 55.8 percent (Table 5). Admittedly, the corresponding figure for India is much lower at 39.2 percent, but a straight comparison is not meaningful here as assured irrigation systems are much costlier in central Indian plateau which accounts for nearly half of country’s total geographical area. The irrigation intensity in other riverine plains or coastal plains in India is above 70 percent and at places it has reached even 90 percent. The obvious consequence of low irrigation intensity in MGP is the low cropping intensity in the region; only less than half of the net cultivated area in MGP is double-cropped, implying substantial under-utilisation of a valuable natural advantage.

Table 5 : Technological Dimensions of Agriculture in Middle Gangetic Plain (mid-Nineties)

	Middle Gangetic Plains				India
	Eastern UP	North Bihar	South Bihar	Overall	
Average size of holding (ha)	0.70	0.65	0.83	0.71	1.57
Cropping intensity	150.3	150.2	155.1	147.4	134.0
Irrigation intensity	56.6	40.7	61.0	55.8	39.2
Fertiliser consumption (kg/ha)	101.0	70.7	89.4	84.7	88.5
Value of production (Rs/ha)	7742	5309	6781	6727	10691
Yield rates (qntls/ ha)					
(a) Rice	16.3	11.9	15.4	14.7	19.5
(b) Wheat	21.8	18.7	21.5	20.8	26.0

Source : ‘Profile of Districts’, Centre for Monitoring Indian Economy, October, 2000

It is very likely that such sub-optimal utilisation of water resources in MGP is related to the flawed irrigation planning in both Uttar Pradesh and Bihar or to the archaic agrarian relations that are operative in the region, but the very low land-man ratio in MGP is no less a relevant factor in explaining the scenario. The average size of an agricultural holding in MGP is just 0.71 hectare, less than half of the national average of 1.57 hectares. More than three-fourth of the operational holdings in MGP are indeed marginal holdings (less than one hectare) where farming practices are guided by compulsions of subsistence, leaving hardly any scope for private investment in irrigation. In the past, both before and after independence, most of the investment in irrigation has, therefore, been through public funding. Under the present liberalised economic regime, where public investment is gradually shrinking, regions like MGP face a serious threat of remaining without adequate rural infrastructure, of which irrigation facilities are a crucial component.

Besides the severe population pressure on land, the area under MGP also suffers from another (natural) disadvantage in the form of its acute flood-proneness (Table 6). This problem is most serious in North Bihar, about 80 percent of its total geographical area being flood-prone. As mentioned before, a number of smaller rivers - all originating in the Himalayas - flow through this region to meet the Ganges. They are generally shallow rivers, incapable of carrying huge rain waters in their catchment areas and thereby causing perennial floods in many of the districts of North Bihar. The government has constructed high embankments on some these rivers, offering protection to about half of the flood-prone areas, but the other half remains perpetually vulnerable to the ravages of flood. Secondly, some of the areas which were earlier protected by embankments are now losing that advantage, since required resources are not provided by the respective state governments to maintain those embankments which are bound to face some erosion. This menace of flood is less threatening in Eastern Uttar Pradesh and South Bihar, but even there no less than 62.8 and 56.8 percent of the area are flood-prone.

Table 6 : Flood-proneness of Middle Gangetic Plain

Area/Percentage	Eastern UP	North Bihar	South Bihar
Total geographical area ('000 ha)	8584	5535	4286
Flood-prone area ('000 ha)	5391	4446	2434
Flood-prone area as percentage of total area	62.8	80.3	56.8
Area protected through embankments ('000 ha)	NA	2508	425
Protected area or percentage of flood-prone area	NA	56.4	17.5

Source : 'Bihar Development Report', Planning Commission, 2003 (forthcoming)

The implications of repeated occurrence of floods in many districts of MGP is not restricted to loss of crops, livestock and property or even as a deterrent to adequate agricultural investment, its impact on the poverty levels in the area is also very decisive as the poorer households in the rural areas are far more affected by the floods than the relatively richer ones. For poorer households, the floods not only imply loss of their current income, but washing away of their ‘kutchha’ (mud wall + thatching) houses, making their life difficult even after the floods recede.

Agricultural Productivity

Three basic requirements for attaining higher agricultural productivity of land is fertile soil, adequate irrigation, and finally, modern agricultural inputs like fertiliser, HYV seeds etc. Of these, the fertility conditions are excellent in the entire MGP because of the alluvial nature of its soil. However, as discussed before, the irrigation facilities in MGP are very moderate in spite of the abundance of both surface and ground water. Two natural factors that act as strong deterrents against fuller utilisation of water resources in MGP are largely subsistence nature of its farming carried out on mostly marginal agricultural holdings and the extreme vulnerability of the region to the menace of floods, the second factor being more relevant for North Bihar and Eastern Uttar Pradesh Plains.

The basket of modern agricultural inputs in the Indian context generally include HYV seeds, chemical fertilisers, pesticides, and to a limited extent (for large agricultural holdings only) the mechanised agricultural implements. In the absence of disaggregated data on other modern agricultural inputs for the three agro-climatic sub-regions under MGP, one could obtain a broad idea about the extent of the use of such modern inputs in the region from the data on the use of chemical fertilisers (Table 5). A comparison with the national averages will indicate that the use of modern agricultural inputs is substantial in at least two of the agro-climatic regions in MGP (Eastern Uttar Pradesh and South Bihar, leaving out North Bihar). However, irrigation intensity in MGP being much higher than the national average, the use of modern agricultural inputs in the regions seems to be much lower than expected. This again underlines the significance of the structural limitations of the agricultural economy of MGP. Wider use of modern agricultural inputs is not visible in MGP because of the uneconomic size of the agricultural holdings there, and it is even lower in North Bihar where the threat of flood makes the expenses on such costly modern inputs a risky proposition.

From a comparison of the structure of agricultural inputs (soil fertility, irrigation intensity and the extent of use of chemical fertilisers) in MGP and India as a whole, it would certainly appear that the overall input level is not much lower in MGP. However, the agricultural productivity in the region, measured either in terms of 'value of production per hectare' or physical productivities of important crops (rice and wheat), is seen to be much lower than the national average. The Per Hectare Value of agricultural production in MGP is only Rs 6727 which is 37 percent lower than the national average of Rs 10691. This huge difference between MGP and India vis-à-vis the technological efficiency of their agricultural sectors is also visible when one considers the physical productivity of rice and wheat, the two most important crops of the region. The productivity of rice in MGP (14.7 qntls/ ha) is 25 percent lower and that of wheat (20.8 qntls/ ha) is again 20 percent lower than the corresponding national productivity levels.

In the three sub-regions within MGP, the agricultural productivity is again very unequal. At the lowest level lies North Bihar where the productivity level is barely half of the national average and it is, therefore, not surprising that the rural poverty ratio there is nearly two-times the national level. Interestingly, although the structure of inputs in Eastern Uttar Pradesh and South Bihar is nearly the same, the productivity level in the former is about 15 percent higher. Since there is not much difference between the two sub-regions regarding physical productivity of rice and wheat, the higher value productivity of Eastern Uttar Pradesh is probably attributable to its cropping pattern, where the commercial crop of sugarcane enjoys a major share.

The salient economic features of the MGP and three of its constituent sub-regions, as it emerges from the above analysis, point towards many of its disadvantages, notwithstanding some natural advantages that it enjoys in terms of soil fertility and water resources. The most serious problem is, of course, the huge population pressure that its land resources have to bear. The large rural population of the region not only means that the available output of the region has to be shared by a large population, but that much of the agricultural production has to be organised in uneconomic holdings which do not allow for necessary investments and economies of scale. This enormous disadvantage is further compounded in the face of high vulnerability of the region to floods, specially the northern part of the Plain. It is, therefore, not surprising that the incidence of rural poverty in the region is one of the highest in the country and, in the absence of fresh development initiatives, the region may remain backward for several more decades.

SECTION II

POVERTY IN GANGETIC PLAINS

2.1 Historical Context of Poverty

A separate attention towards poverty reduction, which is in addition to the concerns shown for the development programmes, had emerged in India probably during the mid-seventies, although the phenomenon of poverty has been there for a much longer time. At least in the context of rural poverty, much of its historical contexts emanate from the colonial policies and they are still as relevant today as they were at the time of independence. Admittedly, a number of (state-specific) legislations have been enacted after independence to redefine the agrarian relations in the rural economy, but wherever such legislations have remained stand-alone initiatives, unaccompanied by major technological changes (for example in Green Revolution areas like Punjab, Haryana or Western Uttar Pradesh) or politico-administrative mobilisations (like in Kerala and West Bengal), the basic nature of the agrarian economy has remained nearly unaltered. Among other things, the agrarian relations in the Indian context include the pattern of land distribution, status of tenants, and the practised norms (as different from statutory provisions) regarding the share of output accruing to the owner of the land (rent) and that retained by the cultivator (wages). Taken in totality, these agrarian relations indeed determine both the growth and distributive aspects of the rural economy. During the colonial period, three types of agrarian relations (or tenurial systems) were operative in India — Permanent, Ryatwari and Mahalwari Settlements. Among these, the element of feudalism was most ingrained in the Permanent Settlement system which ensured high rents for the landlords without any commitment from them towards agricultural investment or other efforts for strengthening the rural economy. The entire area under MGP was under such Permanent Settlement during the colonial period and its deep negative impacts are visible even today.

The most obvious impact of the tenurial system under Permanent Settlement was the skewed distribution of land which had become increasingly so over the years, the trend continuing even after independence. Earlier, this widening of the inequality of land distribution was the outcome of continuous land-alienation when smaller tenants, unable to meet the exploitative rent demands of the landlord, used to sell off their small holdings to richer tenants. With the abolition of Permanent Settlement after independence, the element of exploitative rents has certainly disappeared in the agrarian scenario of MGP, but indebtedness and unsustainability of

very small agricultural holdings often force smaller cultivators to dispose off their land even now, swelling gradually the rank of landless or land-poor rural households. While analyzing the current pattern of land distribution later in this study, it is revealed that more than 40 percent of the rural households in MGP are landless and another 30 percent live off less than one acre of land. For India as a whole, this phenomenon of absolute or near landlessness is of much lesser magnitude. As land is the principal source of livelihood in rural areas (and sometimes it's the only source), such landless and land-poor households are often the easiest victim of rural poverty syndrome.

The highly iniquitous land distribution that characterises Permanent Settlement areas in general and MGP in particular generates a strong poverty syndrome in more than one way. For one, it obviously implies a parallel iniquitous distribution of rural income, but more than that it also implies an inefficient use of the limited land resources leading to lower aggregate income in the rural economy. In these areas, a small number of rural households would own land far in excess of what they can manage to cultivate through household or hired labour and, thus, would be forced to lease out a part of their cultivable land to smaller cultivators, sometime even a very large part. The amount of rent that the actual tillers of the land have to generally pay to the owners of the land in the form of crop sharing is so high that it leaves no incentive for the tiller for any technological upgradation of his farming practices. This obviously perpetuates the low productivity of the agricultural sector and the consequential low aggregate income originating there.

Yet another historical trend, associated with Permanent Settlement, which had thwarted the growth of rural economies in MGP is the wide tendency among the erstwhile landlords not to undertake any investment for strengthening rural infrastructure including irrigation. This was indeed quite contrary to what the colonial administration had assumed to be the expected economic consequences of Permanent Settlement. Apart from putting an end to the uncertainty involved in 'periodic' settlements, the colonial administration had assumed that the Permanent Settlement would encourage landlords to adopt a positive attitude towards the problems of agriculture, invest a part of their rental income towards improving rural infrastructure and adopt entrepreneurial attitude towards increasing agricultural productivity, pushing up, in turn, the rent earnings. Unfortunately, the course of history during the next one-and-a-half century (from 1793 when Permanent Settlement was introduced to 1947 when the country became independent) has been very different and years of neglect by the landlords has incapacitated the

rural economy to a deep extent. To appreciate just how crucial is the role of public investment in rural infrastructure towards improving agricultural productivity, one has to only note that such investment has been substantial in all the agriculturally prosperous regions of the country including Punjab and Haryana. Indeed, a small part of the South Bihar Plain also enjoys high agricultural productivity and it does so essentially because of the serving Sone Canal system there, a result of an agricultural investment by the colonial administration.

The Permanent Settlement, apart from granting certain autonomy to the landlords regarding agrarian issues, had also implicitly allowed a parallel administrative autonomy to them. To ensure the unstinted loyalty of the landlords for the colonial power, they were generally left undisturbed, implying the practice of 'limited raj' in Permanent Settlement areas. Many economic historians have also held this administrative arrangement to be the cause of despotic disposition of many landlords, causing not only a weak rural economy but simultaneously retarding the growth of rural society by denying it the opportunities for health and education.

After independence, the Permanent Settlement was, of course, abolished first in Uttar Pradesh and later in Bihar, but all that the system had caused historically — highly skewed land distribution, asymmetric power structure or the infrastructural poverty of the rural economy — remained nearly unaltered even till recent times. The rural land interests continue to be politically so powerful that meaningful land reforms have eluded both the states, particularly Bihar. Radical impacts that land reforms can make on the poverty reduction programme could be judged from the experiences of West Bengal which was also a Permanent Settlement area. After completing its land reforms programme by the mid-eighties, the state was able to bring down its rural poverty level from 49.2 percent in 1983 to 27.3 percent in 1993-94, a reduction of 21.9 percentage points within just a decade.

The failure of the post-independence period of planning is, however, not limited to the absence of land reform alone. Even in the field of public investment for rural infrastructure (irrigation, rural connectivity through all-weather roads, rural electrification etc.), the progress has been extremely slow and more so since the eighties. In the all-India context, the only exception to this general trend has been the Green Revolution areas where substantial public investment has been made to strengthen the rural infrastructure; but, unfortunately, such areas cover barely one-fifth of the total area of the country and the MGP does not form a part of that privileged focus.

2.2 Dimensions of Rural Poverty

The estimates of rural poverty in India relating to 1993-94 indicate that a little more than half the rural population (51.8 percent) of MGP live below poverty line whereas, for India as a whole, the corresponding ratio stands at one-third (36.7 percent) (Appendices II and III). The difference is indeed very large (15.1 percentage points), even after taking into account the huge pressure of population that the area bears. Such areas like West Bengal, Kerala and coastal regions of Andhra Pradesh or Tamilnadu are also very densely populated, but the rural poverty levels there are much less. That the structural features of the agrarian economy and the social composition of rural society are crucial contributors to the degree of rural poverty becomes apparent when one compares the rural poverty ratios across the three sub-regions of MGP. Eastern Uttar Pradesh and South Bihar, as noted in discussions made earlier, are very close to each other regarding the technological base of their agricultural sector or the intensity of population pressure on their land resources. But, because of the interventions of structural factors, the rural poverty ratio in South Bihar (54.0 percent) is noticeably higher than in Eastern Uttar Pradesh (48.6 percent). Structurally, the rural economy of Uttar Pradesh enjoys a less iniquitous land distribution pattern and agrarian relations there are also less archaic, the two together ensuring relatively higher income levels and more egalitarian distribution of it, resulting in a lower incidence of poverty. North Bihar Plain, on the other hand, suffers most from both technological weakness as well as structural limitations and, consequently, the rural poverty ratio is highest there at 58.7 percent.

Moving to a further level of disaggregation, the district-wise rural poverty ratios indicate that, although the phenomenon is less severe in Eastern Uttar Pradesh, in no less than 9 districts of this sub-region, the poverty ratios are above 40 percent (Table 7). In South Bihar, on the other hand, severe rural poverty (more than 40 percent) is observed in only 2 districts and in as many as 5 of its districts, the poverty ratios are rather low (less than 30 percent). In North Bihar, as expected, the incidence of poverty is not only deep but very wide covering nearly the entire sub-region.

Table 7 : Distribution of Districts of Middle Gangetic Plain by Levels of Rural Poverty

Sub-Regions	Levels of Rural Poverty		
	Less than 30 percent	31-40 percent	More than 40 percent
Eastern UP	Varanasi, Ballia, Gorakhpur (3 districts)	Faizabad, Allahabad, Ghazipur, Mau, Deoria, Mirzapur, Sonbhadra (7 districts)	Baharaich, Gonda, Sultanpur, Pratapgarh, Jaunpur, Azamgarh, Maharajganj, Basti, Siddharthnagar (9 districts)
North Bihar	Saran, Begusarai (2 districts)	West Champaran, East Champaran, Siwan, Gopalganj, Sitamarhi, Muzaffarpur, Vaishali, Darbhanga, Saharsa, Madhepura, Kishanganj, Khagaria (12 districts)	Samastipur, Madhubani, Purnea, Katihar, Araria (5 districts)
South Bihar	Patna, Nalanda, Bhojpur, Munger, Bhagalpur (5 districts)	Rohtas, Gaya, Jehanabad (3 districts)	Aurangabad, Nawada (2 districts)

Although estimates of absolute levels of rural poverty are very useful in identifying the areas where policy interventions are most needed, designing of such policies, however, should be more informed about changes in the poverty levels in different areas — its direction, pace of change and information about the possible causalities. Such data relating specifically to the MGP or its constituent sub-regions is not available and, consequently, this trend may be analysed using the NSSO estimates on rural poverty for Uttar Pradesh and Bihar (Tables 8 and 9). These estimates cover eight intermittent years of the two decades of eighties and nineties. Since with the introduction of the policy of liberalisation, the decade of nineties marks a sharp departure from the earlier decades vis-à-vis growth strategy for the overall Indian economy as well as its rural sector, a comparison between these two decades is very relevant for a number of economic trends, including the pace of reduction in poverty levels.

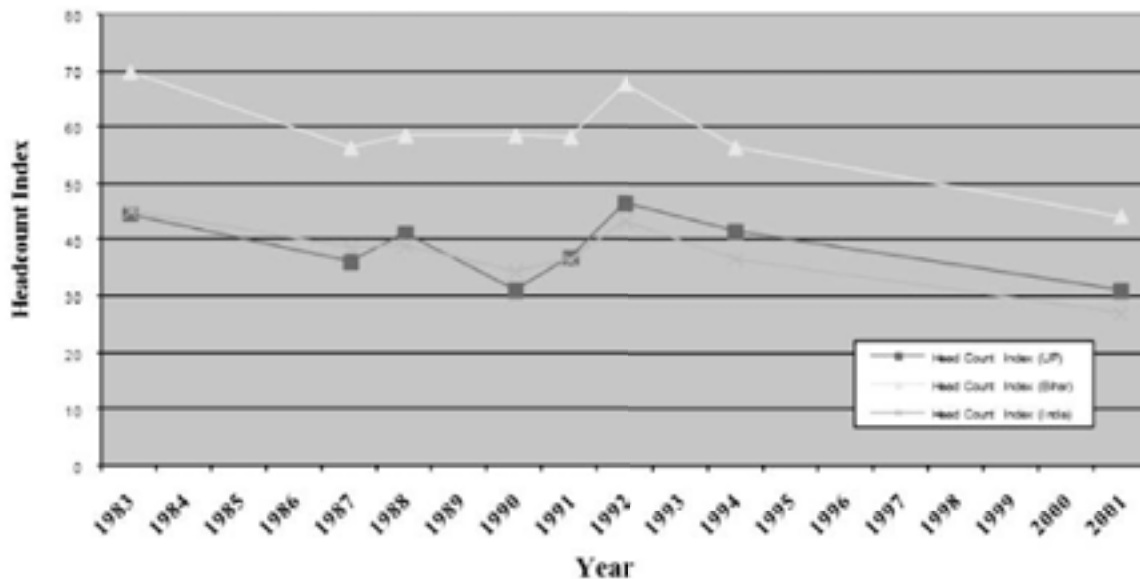
Table 8 : Trend in Rural Poverty in Uttar Pradesh, Bihar and India (1983 to 2000-01)

Year	Head-count Index	Poverty Gap Index	Squared Poverty Gap Index
Uttar Pradesh			
Jan, 1983 – Dec, 1983	44.7	12.0	4.4
Jul, 1986 – Jun, 1987	36.2	9.0	3.1
Jul, 1987 – Jun, 1988	41.4	9.6	3.0
Jul, 1989 – Jun, 1990	31.1	7.0	2.1
Jul, 1990 – Jun, 1991	36.9	9.1	3.2
Jan, 1992 – Dec, 1992	46.7	12.7	4.7
Jul, 1993 – Jun, 1994	41.6	10.2	3.5
Jul, 2000 – Jun, 2001	31.2	NA	NA
Bihar			
Jan, 1983 – Dec, 1983	69.9	22.5	9.5
Jul, 1986 – Jun, 1987	56.4	15.6	5.7
Jul, 1987 – Jun, 1988	58.6	15.1	5.2
Jul, 1989 – Jun, 1990	58.6	15.4	5.7
Jul, 1990 – Jun, 1991	58.3	12.3	3.9
Jan, 1992 – Dec, 1992	67.8	19.7	7.7
Jul, 1993 – Jun, 1994	56.5	17.3	6.3
Jul, 2000 – Jun, 2001	44.3	NA	NA
India			
Jan, 1983 – Dec, 1983	45.3	12.6	4.8
Jul, 1986 – Jun, 1987	38.8	10.0	3.7
Jul, 1987 – Jun, 1988	39.2	9.3	3.0
Jul, 1989 – Jun, 1990	34.3	7.8	2.6
Jul, 1990 – Jun, 1991	36.4	8.6	2.9
Jan, 1992 – Dec, 1992	43.5	10.9	3.8
Jul, 1993 – Jun, 1994	36.7	8.4	2.8
Jul, 2000 – Jun, 2001	20.6	NA	NA

Table 9 : Average Yearly Decrease in Poverty Percentage in Uttar Pradesh, Bihar and India

Period	Average Yearly Decrease in Poverty Percentage		
	Uttar Pradesh	Bihar	India
Period I (1983-1991)	0.98	1.45	1.11
Period II (1991-2001)	0.57	1.40	1.58
Period I+II (1983-2001)	0.75	1.42	1.37

TREND IN RURAL POVERTY IN UP, BIHAR AND INDIA (1983 TO 2000-01)



Although the beginning of nineties was characterised by increase in rural (and also urban) poverty levels, the long-term trend clearly indicates faster reduction of rural poverty levels during this decade in India as whole (Table 9), which is attributed to the enhanced pace of economic growth during the period. And this faster reduction in rural poverty was not just marginal — while during the eighties, the rural poverty level had come down by 1.11 percentage points every year, it was 1.58 percentage points per year during the nineties. The protagonists of the strategy of liberalisation in general and the World Bank in particular have consistently highlighted this trend as a strong evidence for the success of the new policy.

The trends regarding poverty reduction at the disaggregated level are, however, very different from that at the aggregate level; in particular, the pace of poverty reduction has indeed decelerated both in Uttar Pradesh and Bihar during the nineties. Such deceleration, though rather marginal in Bihar, was fairly sharp in Uttar Pradesh. A comparison of the rural poverty ratios in Uttar Pradesh, Bihar and India over the decades of eighties and nineties also shows that, except for the eighties in Bihar, the poverty reduction rates have been invariably lower than the national average in both the states. If it were possible to have disaggregated data on rural poverty ratios in MGP (with or without further disaggregation for Eastern Uttar Pradesh, North Bihar and South Bihar), these observation were very likely to remain unaltered; in other words, first, the pace of poverty reduction in MGP has always been slower than in India as a whole, and secondly, while the nineties have witnessed faster reduction in rural poverty levels

in India as a whole, the process has indeed been slower in MGP during the nineties. It is these contrasting impacts of the policy of liberalisation on backward regions like MGP at one hand and the rest of the country at the other that merit deep attention in any analysis of rural poverty scenario in India.

The process and the pace of rural poverty reduction vary not only between prosperous and disadvantaged regions, but even within one disadvantaged region and another. Consider, for example, the contrasting poverty reduction trends in Uttar Pradesh and Bihar; although rural poverty levels are lower in Uttar Pradesh, the pace of poverty reduction has been much slower there during both eighties and nineties compared to the trend in Bihar. Thus, while the rural poverty levels in Uttar Pradesh have decreased by 13.5 percentage points between 1983 and 2001 (nearly two decades), Bihar has recorded decrease by 25.6 percentage points during the same period. This is generally ascribed to the steady growth of Bihar's agricultural economy (which grew at a rate of about 2.5 percent during the eighties and nineties) and is a strong evidence of growth being the principal factor in any poverty reduction process. One study has indeed estimated that, in the overall Indian context, it is the growth of the aggregate economy which contributes about 85 percent to the process of poverty reduction, the impact of all state-funded poverty alleviation programmes being limited to only 15 percent (Dutt, 2002).

2.3 Social Profile of the Poor

India's rural economy in general and that of the MGP in particular are entirely dependent on land and agricultural activities. A few other non-agricultural activities like animal husbandry or fishery are also land-related and carried out largely as a household-level petty production activity to supplement agricultural income, but rarely as an independent occupation. Secondly, since for a large part of the marginal or small agricultural holdings, working members of the households are the main source of labour supply, not having adequate land is the principal reason for rural poverty in India. Landless and land-poor households, therefore, constitute the large bulk of 'below poverty level' (BPL) households in India. According to one estimate, nearly 70 percent of the landless wage-earners and 45 percent of the marginal farmer households in India are BPL households (NCAER, 1996). Although the proportion of landless households in MGP is only slightly higher than in India as a whole (41.5 and 38.6 percent, respectively), the proportion of household living off marginal landholding (less than one acre) is much higher here than in India (29.2 and 15.3 percent, respectively) (Table 10). Thus, these

compared to about 55 percent in India as a whole. Thanks to the historical trends in agrarian relations, this land distribution pattern is most inegalitarian in North Bihar and a little so in South Bihar; Eastern Uttar Pradesh, however, has a relatively egalitarian land distribution where the phenomenon of absolute landlessness is rather moderate.

Such inegalitarian landholding patterns and the associated asymmetric agrarian relations are probably symptomatic of all traditionally agricultural societies; what, however, differentiates the Indian scenario from the rest is the substantial parallelism between the two distribution of households - one along their landholdings and the other along their religion and caste background (Table 10). The scheduled caste Hindus are the most disadvantaged social group in terms of land endowment and they form about one-fifth of the households, both in India as whole and MGP. Nearly all of them are landless and this phenomenon of land poverty is also very wide among the Muslim households, the latter forming a much larger part of the rural population in MGP (15.4 percent) than in whole of India (10.4 percent). The social group of backward caste Hindus is a very large one comprising numerous castes, and it is a very heterogeneous category. Some of these castes have indeed agriculture or related activities as their caste occupation and thus own some land; but many households from these backward castes (mostly with traditional services as their caste occupation) are either landless or severely land-poor and are thus BPL households. Caste and religion are used extensively by rural households (and may be even urban households) as a strong 'reference group' determining their social behaviour and, therefore, the economic segmentation of the rural households along land endowment and their social segmentation along religion/caste background reinforce each other, preventing social and economic mobility.

Among the three sub-regions of MGP, Eastern Uttar Pradesh is a rather atypical area where the upper caste Hindu households are much larger in number. Thus, in spite of being a part of Permanent Settlement area, the incidence of landlessness is noticeably less here and so is the incidence of poverty.

Table 10 : Distribution of Rural Households by Religion/Caste and Landholding Groups in Middle Gangetic Plain

(Percentages)

	Middle Gangetic Plain				India
	Eastern UP	North Bihar	South Bihar	Overall	
Religion/Caste Groups					
Upper Caste Hindus	24.4	4.8	3.6	11.8	18.9
Backward Caste Hindus	35.7	53.6	54.7	48.1	33.5
Scheduled Caste Hindus	21.7	20.6	26.1	21.8	20.2
Scheduled Tribes	3.0	1.7	2.3	2.4	11.2
Muslims	14.7	18.9	12.7	15.4	10.4
Others	0.5	0.4	0.6	0.5	5.8
Total	100.0	100.0	100.0	100.0	100.0
Landholding Groups					
Landless	27.9	50.7	49.8	41.5	38.6
Less than 1 acre	37.8	23.6	20.1	29.2	15.3
1-5 acres	33.1	20.9	23.0	25.3	34.3
5+ acres	1.2	5.8	7.1	4.0	11.8
Total	100.0	100.0	100.0	100.0	100.0

Source : 'National Family and Health Survey (1998-99)', International Institute for Population Sciences, Mumbai (2000)

Table 11 : Distribution of Rural Households in Middle Gangetic Plain by Housing Characteristic

(Percentage)

	Middle Gangetic Plain				India
	Eastern UP	North Bihar	South Bihar	Overall	
Type of House					
Kutcha	46.0	58.3	51.3	49.7	41.4
Semi-pucca	28.4	30.8	28.5	28.3	39.5
Pucca	25.6	10.8	20.2	22.0	19.2
Total	100.0	100.0	100.0	100.0	100.0
Toilet within Household					
Yes	29.3	14.6	21.5	23.5	18.9
No	70.7	85.6	78.5	76.5	81.1
Total	100.0	100.0	100.0	100.0	100.0
Electricity					
Yes	33.2	11.6	22.7	23.6	48.1
No	66.8	88.4	77.3	76.4	51.9
Total	100.0	100.0	100.0	100.0	100.0

Source : 'National Family and Health Survey (1998-99)', International Institute for Population Sciences, Mumbai (2000)

2.4 Livelihood Patterns

The contrasting development experience of India as a whole and MGP during the nineties are further revealed by the livelihood patterns of the rural populations there. Although the rural poverty ratios have declined everywhere -- India, MGP and three sub-regions under the latter -- it was a strenuous process in MGP, but not so in most other parts of the country. Between 1991 and 2001, the work participation rate (WPR) has actually recorded a marginal decline for India as a whole — from 54.9 to 52.4 percent for males, and from 33.1 to 31.0 percent for females (Table 12). But, in MGP, a slight decline in male WPR is accompanied by a sharp rise in female WPR. In other words, the rural poor in MGP, particularly the women, had to work much harder to attain a modest improvement in their living standards during the nineties. The trend is similar in all the three sub-region under MGP, but more pronounced in North and South Bihar.

Table 12 : Work Participation Rates and Sectoral Distribution of Rural Worker in Middle Gangetic Plain

Indicators	Middle Gangetic Plain				India
	Eastern UP	North Bihar	South Bihar	Overall	
Work Participation Rate					
1991					
Male	48.7	49.6	47.0	48.4	59.9
Female	18.1	12.4	15.0	15.2	33.1
2001					
Male	45.5	49.0	48.2	47.6	52.4
Female	23.1	19.9	23.4	22.1	31.0
Percentage Distribution of Rural Workers					
1991					
Cultivator	55.8	43.9	50.2	51.3	48.5
Agr. Labour	25.9	41.1	37.7	33.5	31.8
Non-farm	18.3	15.0	12.1	15.2	19.7
Total	100.0	100.0	100.0	100.0	100.0
2001					
Cultivator	44.6	30.8	36.8	37.4	40.1
Agr. Labour	33.9	53.9	45.7	44.5	33.2
Non-farm	21.5	16.5	19.0	19.0	26.7
Total	100.0	100.0	100.0	100.0	100.0

An analysis of the distribution of workers among the three major occupation groups in India and MGP again underlines the relatively more strenuous livelihood patterns that rural poor in MGP is forced to adopt. Indicating the still growing phenomenon of landlessness, it is observed that the proportion of cultivators among the workers has declined everywhere, whereas for India as a whole, this phenomenon of increased landless of rural population is compensated by larger opportunities for non-farm employment (RNFE), in MGP it has resulted in the swelling of the rank of agricultural labourers who constantly face the double disadvantage of limited employment and low wages. Many studies in the recent past have stressed the crucial contribution that rural non-farm employment could make towards strengthening rural economy and alleviating rural poverty, since the absorption capacity of land seems to have reached its maximum, at least with the present level of its technological base (Chaddha, 2000). In many areas, specially those with high demographic pressure on land like MGP, it is probably wiser to invest adequately in rural infrastructure (like roads and electricity) to generate additional employment opportunities than to invest in agricultural production alone.

The importance of rural non-farm sector as an emerging source of additional livelihood (in the face of agriculture having reached its saturation levels of employment) is not restricted to advanced regions alone. The pressure on employment market has been so deep that even in backward areas like MGP, there has been expansion of RNFE during the nineties. In comparison to a share of RNFE of 15.2 percent in total rural employment during 1991 in MGP, it has increased to 19.0 percent in 2001. Among the three sub-regions of MGP, North Bihar has the weakest rural infrastructural base and hence the expansion of RNFE has been the least in the sub-region. It has been rather modest in Eastern Uttar Pradesh (the share RNFE increasing from 18.3 to 21.5 percent); but South Bihar, with its relatively better rural infrastructural support and steady growth of its farm sector, has witnessed a sizeable expansion of RNFE, its share in total rural employment being rising from 15.1 percent in 1991 to 19.0 percent in 2001.

2.5 Gender Dimensions of Poverty

A household is the basic social and consumption unit in any society and its overall economic status affects all its members. However, this impact of family income on individual members, either in terms of consumption levels or other indicators of quality of life, is not necessarily the same and substantial gender differences are observed within the household. Poverty generally makes this difference even wider, and in a typical BPL household such gender differences can be observed with respect to their education and health standards and the extent of autonomy

they enjoy. The reproductive burden of women from poorer household is also higher than those from relatively richer households. An appropriate database to substantiate the above observations would have been a comparison between BPL households and the rest, which is not available either for India as a whole or for MGP. However, Table 13 presents a comparative profile of women in India and MGP, providing substantial evidence about much deeper level of deprivation of women in MGP in comparison to women elsewhere in India. (The comparative profile relates to women in the 15-49 years age-group, not the entire female population).

As regards the educational level, the difference in the status of women in MGP and India is not very high, but when one considers the exposure of women to various forms of mass media, the deeper levels of deprivation for women in MGP becomes much apparent. The percentage of women with no exposure to any mass medium is as high as 66.1 percent in MGP, the corresponding figure being 40.3 percent for India as a whole. It is quite possible that for women of BPL families in MGP, the corresponding figure will exceed 80 percent; in other words, the cognitive world of such women is possibly limited to their own villages alone.

An adult woman, irrespective of her educational attainments, is mature enough to take some 'personal' decisions like her own health care, or visiting her friends/relatives or going to market for buying household needs. These are, indeed, minimum autonomies that any individual would need to ensure a 'human' existence. But the forces of patriarchy are so strong in rural India that even such minimum autonomies are denied to women here and the denial is even wider in MGP. For example, only 51.6 percent of the rural women in India are involved in the decision on their own health care, this being even lower at 41.9 percent for women in MGP.

Of all the burdens that women have to bear, the most strenuous is probably their reproductive responsibility. In spite of the fact that 51.8 percent of the rural women in India suffer from anaemia, the mean number of children ever born to a woman in 40+ year age-group is 4.4. This reproductive stress on women is expectedly much higher for women in MGP — in spite of 60.9 percent of women there suffering from anaemia, no less than 5.6 children are born to a woman of 40+ age. These fertility rates are indeed higher than women's own desire; on an

Table 13 : Status of Women in Middle Gangetic Plain

Indicators	Gangetic Plain				India
	Eastern UP	North Bihar	South Bihar	Overall	
Education Level					
Illiterate	74.1	79.4	72.9	74.6	67.0
Just literate	2.5	2.3	3.1	2.5	6.1
Completed primary/middle	14.7	10.2	9.7	11.9	19.2
Completed high school/above	8.7	8.1	12.9	11.0	7.7
Total	100.0	100.0	100.0	100.0	100.0
Exposure to media					
Percentage of women exposed to					
(a) Newspaper/magazine	10.2	9.2	9.6	9.8	20.8
(b) Television	27.0	14.6	17.3	20.0	45.7
(c) Radio	28.6	22.0	19.8	24.6	38.5
(d) No mass medium	56.7	73.8	72.3	66.1	40.3
Women's Autonomy					
Percentage of women					
(a) Working	14.3	22.3	28.2	19.7	44.0
(b) Involved in decisions on own health care	41.8	36.5	48.7	41.9	51.6
(c) Involved in decisions on going to market	16.1	16.9	15.2	16.1	31.6
(d) Involved in decisions for visiting friends/relatives	12.7	16.4	14.4	14.3	24.4
(e) Not involved in any decision making	24.0	14.3	19.0	19.5	9.4
(f) Having access to money	52.0	73.6	58.6	60.7	59.6
Reproductive Characteristics					
(a) Total fertility rate (last 3 yrs.)	4.0	3.8	3.6	3.8	2.8
(b) Total wanted fertility rate	3.0	2.9	2.6	2.8	2.1
(c) Mean number of children ever born to women in age-group 40-49 years	5.9	5.4	5.4	5.6	4.4
(d) Percentage of births with traditional attendant	68.6	70.7	59.9	67.1	35.0
(e) Percent of women with anaemia	61.5	60.2	60.7	60.9	51.8

Source : 'National Family and Health Survey (1998-99)', International Institute of Population Sciences, Mumbai (2000)

average, their wanted fertility rate is at least one child less than what they have already delivered. For women in MGP, an additional suffering is the absence of minimum medical facilities for giving birth to their children; no less than 67.1 percent of women in MGP are assisted by a traditional attendant while giving birth to their children.

2.6 Political Economy of Governance and Poverty

The agro-climatic endowments of the Gangetic Plains in Uttar Pradesh and Bihar, the demographic pressure that characterises this area and finally the historical context of its agrarian sector, may all add up to define an economic scenario where rural poverty is so acute; but if that scenario has continued to exist even after half a century of rural development efforts in India, it cannot probably be attributed to those factors alone. The dynamics of socio-political developments in these two states, more so in Bihar, has been such that it had continuously impaired the governance there, particularly its delivery system. The performance of the ‘developmental state’ that was sought to be built after independence might not have been spectacular elsewhere in India, but its limitations were most revealed in this region. Although these trends were very similar and Uttar Pradesh and Bihar, it would be more meaningful to analyse it in the context of Bihar where the trend has reached a definite stage, revealing more clearly both its antecedents and consequences.

At the origin of these socio-political developments lies a close relation between the economic division of rural society along land endowments and its social division along caste background. Far from being a binary one, this socio-economic division was along several layers — the upper caste land-rich people being at the top, a part of an extremely heterogeneous population from upper middle castes trying to occupy some socio-political space in the middle; and the impoverished voiceless lower middle and scheduled caste population just managing to exist. The political elites obviously came mostly from the upper castes, with some representation from upper middle caste population. The main political agenda of these political elite was not only to safeguard their landed interest, but also to retain the relative advantages that each privileged caste had vis-à-vis the other privileged ones. That the second part of their political agenda was no less critical is apparent from the fact that caste in Bihar has for long been the most important ‘social identity’, not merely an indicator of ‘social status’. This tendency of treating caste as a point of identity is not restricted to political elites alone; it is equally present among other sections of society, including even the bureaucracy and the professionals. Thus, the political agenda here is caste-coloured, the bureaucracy is caste-conscious and society at

large is caste-ridden. Apart from many other negative consequences, this caste division obviously causes a large part of the political energy in Bihar being spent in negotiating caste contradictions. Under such circumstances, the agenda of governance, development and an effective delivery system obviously gets marginalised here, allowing for persistent poverty.

As only expected, the dismal development and the consequent recurrent poverty have further weakened the process of governance, giving rise to criminalisation of politics on the one hand and the left-wing agrarian violence on the other. The nexus between crime and politics is certainly not unique to Bihar; however, its *modus operandi* here cripples far more the process of governance, since such acts as kidnapping or extortion often affect small entrepreneurs or even ordinary people. The state administration in Bihar, therefore, is often forced to be more busy with such primary function of the state like ‘maintaining law and order’, having relatively less resources and time for its developmental responsibilities. As regards the left-wing agrarian violence, it is one of the most resilient agrarian movements in India, having started as early as in the late sixties. This movement, which had initially started around purely agrarian issues, had also later acquired some caste dimensions. What is even more unfortunate is that the political impact of the movement in generating a pressure on the policy-making bodies and development administration towards agrarian reform is probably limited, but its negative impact of incapacitating the local administration is far more visible.

The left-wing agrarian politics, however, has not been the only response of the people of Bihar to the staggering problems of its economic backwardness, widespread poverty and sharp social inequalities. On the agrarian front, strong peasant movements in Bihar date back to the thirties, primarily around the issue of securing tenants’ rights from the despotic rule of the landlords under Permanent Settlement. The trend continued even after the abolition of ‘*zamindari*’ soon after the independence, this time around the issue of sharecroppers’ rights and agricultural wages. Simultaneously, again dating back to the thirties, there have also been movements, mainly by upper middle caste population, against social inequality. One such movement, called ‘Triveni Sangh’ (‘triveni’ literally meaning ‘confluence of three flows’ and ‘sangh’ meaning ‘association’) was actually a movement by three important upper middle castes — ‘yadav’, ‘kurmi’ and ‘koeri’ — for social equality. It was, therefore, not surprising that both the socialists (emphasising the economic and social issues together) and the communists (focussing mainly on economic issues) have been sizeable forces in post-independence politics of Bihar.

nineties, has been a critical issue in Bihar since as early as the seventies. Although it was the working of the agrarian economy that had led to the backwardness of Bihar and the political agenda should have centered around this issue, the long trend of caste-based politics in Bihar had thrown the issue of ‘social inequality’ to the forefront and political mobilisation around caste identity has been increasing in Bihar since at least the seventies. These mobilisation efforts, facilitated further by the fact of larger numerical strength of the middle castes, had finally ensured their ascendancy to power from the late eighties. This was indeed a profound change in the political scenario of Bihar, bringing as it did a completely new social group to the seat of power. The group is headed by three upper middle castes named earlier (with ‘yadavs’ being the most dominant), but it enjoys the electoral support of a number of other disadvantaged castes and the Muslims, the latter no less disadvantaged.

From the perspective of development and poverty reduction, it is undoubtedly the understanding and vision of this new ruling social group that constitute the core of development initiatives in Bihar. By now, this social group has been in political command for more than a decade, but its development achievements have been very limited. It appears that these middle caste leadership is still counting on its initial success on the ‘social justice’ front and, hence, as yet oblivious of the imperatives of development needs of the people. With their limited experience in governance, they seem to be unaware that development also pays political dividends. It is a lesson they will hopefully learn in near future, either from a pressure from below or through sensitisations from above.

SECTION III

GROWING OUT OF POVERTY

3.1 Economic Growth and Poverty Reduction

The long-term trend in the incidence of rural poverty in India during the last two decades, as well as in Uttar Pradesh and Bihar, shows three distinct phases (Table 9). The first of these phases is the early eighties when the pace of poverty reduction was fairly high. Between the years 1983 and 1987, a gap of only 4 years, the decline in poverty ratios was 8.5 percentage points for Uttar Pradesh, a substantial 13.5 percentage points for Bihar, and 6.5 percentage points for India as a whole. The growth rate of the rural economy during this period was only modest throughout India, including Uttar Pradesh and Bihar. It has often been argued that this was the result of extensive ‘poverty alleviation programmes’ (PAPs) undertaken by the ruling parties mainly as a populist measure to strengthen their weak political base. Whatever might be the ulterior motive, the experience of this phase of Indian economy clearly suggests the great potential of state interventions towards alleviation of poverty.

The second phase, covering the five-year period 1987 to 1992, is characterised by a rise in rural poverty ratios again throughout India including both the states of Uttar Pradesh and Bihar. This was the period when neither the rural economy shown any remarkable growth, nor was there much resource support from the state for poverty alleviation programmes; the latter because of weakened state finances both at the centre and state levels. This was also the period when the structural adjustment of the economy had been initiated and a reversal in the process of poverty reduction had actually brought back the rural poverty ratios to the level where they were at the beginning of the eighties. In other words, the deterioration during the second phase vis-à-vis poverty scenario had obliterated whatever gains were made during the first phase.

The third and the final phase of this long period is the eight years of the functioning of economy under a liberalised regime, starting from 1992. This period is again characterised by substantial reduction in rural poverty. For India as a whole, the rural poverty ratio has decreased by 22.9 percentage points (from 43.5 in 1992 to 20.6 in 2001); in Uttar Pradesh, the decrease was rather modest at 10.4 percentage points (from 41.6 in 1992 to 31.2 in 2001); and finally, a reduction in rural poverty was also a substantial 12.2 percentage points in Bihar (from 56.5 in 1992 to 44.3 in 2001). The development experience of these three phases, therefore, provides an excellent understanding about the impact of two major factors — growth and direct

PAPs — on the process of poverty reduction. The first phase is characterised by a very modest growth accompanied by substantial PAPs, resulting in modest reductions in rural poverty levels; the second phase had indeed witnessed a rise in rural poverty levels, resulting from the poor growth performance as well as reduced PAPs; and finally a strong growth process during the third phase causing substantial reduction in rural poverty, even in the face of reduced PAPs. It is, therefore, not surprising that many scholars emphasize that growth of aggregate output is the most potent strategy for poverty reduction, not direct PAPs by the state.

A more careful comparison of the growth-mediated poverty reductions during the late nineties and the largely PAP-mediated poverty reduction in early eighties, however, denotes that since growth itself is often a regionalised phenomenon under liberalised regimes, so is its impact on the poverty reduction process. Therefore, although the pace of poverty reduction was much higher during the late nineties for India as a whole, the process was much weaker in backward regions like Uttar Pradesh and Bihar. In sharp contrast lies the experience of the early eighties when the process of poverty reduction, although a little slower, had touched a much wider area of the country, including such backward regions as Uttar Pradesh and Bihar. For a comprehensive policy framework for poverty reduction in India, it is very desirable that the specific development needs of such backward regions are adequately addressed and, in such a policy framework, it is difficult to ignore a place for PAPs.

Since rural economy in India largely rests on land-based activities alone, the concept of rural growth here is often equated with the growth of agricultural economy. This is obviously a narrow view of rural economy and should be particularly avoided in the context of discussion on the relation between growth and poverty reduction. In many of the states where pace of poverty reduction has been comparatively higher during the nineties (like in Gujarat, Haryana, Rajasthan and West Bengal), it has indeed been possible because of the substantial expansion of non-farm sector in their rural areas. Studies using NSSO employment data have shown that NRFE has absorbed about three-fourth of the incremental rural male workers during the eighties; and almost the whole of incremental rural female workers have also been absorbed by non-farm sector during the same period (Chaddha, 1994). The census data of 1991 and 2001 also indicate a continuation of that trend during the nineties in many parts of the country. A positive relation between on-farm and non-farm employment has been responsible for the higher level of non-farm development of those regions. Thus, states with greater degree of agricultural development, the consequential diversification of rural economy and the

corresponding generation of additional NFRE are obviously better equipped to make a dent in rural poverty levels. In many agro-climatic regions in India, this is how rural poverty has been lessened; but such a trend, although not entirely absent, had been rather weak in MGP, specially in North Bihar.

For an expansion of the rural non-farm sector, however, it is not enough to have a high agricultural growth alone. The full potential for the expansion of rural non-farm sector is realised only when a period of sustained agricultural growth is accompanied by adequate investment in rural infrastructure. Beside strengthening of irrigation system (which under the present regime of liberalisation is taken care of mainly by private investment), two other major dimensions of rural infrastructure are — rural roads and rural electrification. On both these counts, the situation in rural India is very poor. As regards the road connectivity, about one-fourth of the Indian villages are not connected by roads, the proportion being higher in Bihar and even higher in Uttar Pradesh (Planning Commission, 2002). With the launching of Pradhan Mantri Gram Sadak Yojana (PMGSY) in 2002, which is budgeted to have about Rs. 60 thousand crores, a critical step has been taken by the central government to improve rural connectivity in India. One has to wait a few years to know how effective has been this programme in meeting the basic infrastructural requirements of the rural areas. The rural infrastructure, in terms of the availability of electricity, is even worse (Table 11). Because of acute financial problems of the power sector in all the states, the situation unfortunately may not improve much in near future.

3.2 State Initiatives for Poverty Alleviation

The origin of the poverty alleviation initiatives in India has been quite straightforward. Right after independence, the twin goals of economic policy in India were to promote economic growth at one hand and remove absolute levels of poverty at the other. Since economic base was weak and income levels were low, it was assumed then that growth-mediated poverty-reduction might be a long drawn affair and, as such, the government should undertake extensive rural development programmes, which would be particularly helpful for the rural poor. The major component of those rural development programmes was the expansion of a ‘service delivery system’, mainly for education and health. The second important step for poverty alleviation was through the introduction of Public Distribution System (PDS) in the early seventies whose main objective was to provide ‘food security’ to the poor (in both urban

and rural areas). The third component of the government's initiative for poverty alleviation had taken the form of 'direct' PAPs that it had launched in the late seventies.

Direct Poverty Alleviation Programmes

From as early as the late seventies, the government had introduced a number of poverty alleviation programmes, directly targeting the BPL families. The major part of the financial resources for these PAPs is provided by the central government, the state level development administration acting as the implementing authority. Besides their intended impact on poverty levels, these PAPs are also undertaken because of the political benefits that they often entail and, over the years, there has indeed been a proliferation of such PAPs. The 2002-03 Economic Survey of the central government, for example, lists as many as 12 such programmes currently under implementation. If one adds to that a few other PAPs that the state governments run on their own, the list will be even longer. Three programmes out of this long list are indeed substantial because of their large financial budgets and they are — Swarnajayanti Gram Swarojgar Yojana (SGSY), meant to support self-employment; Sampoorna Gramin Rojgar Yojana (SGRY) aimed at providing wage employment; and Indira Awas Yojana (IAY) to provide dwelling facilities for the BPL families.

In the absence of evaluation results specific to MGP, it will not be possible here to comment on the impact of these programmes on the rural poverty ratios in MGP. But the general observation of the efficiency of these programmes based on national experience is almost certain to be relevant in Uttar Pradesh and Bihar as well. Consider, for example, the observation that widespread 'improper targeting' of these programmes imply that the resources meant for BPL families are extensively misappropriated by relatively better off households, because of the highly asymmetric power structures in rural societies where the poor are not able to obtain even their 'assigned' share. The Panchayati Raj Institutions (PRIs) could help to weaken this rural oligarchy, but unfortunately, because of an ineffective support system (political, administrative and financial) these institutions also have often incorporated the existing power relations in their functioning. Neither Uttar Pradesh nor Bihar is exception to this general trend; the scenario might indeed be worse here because of acute caste divisions, extremely iniquitous land distribution and the resulting asymmetry in rural power structure.

While the problem of improper targeting of PAPs emanate mainly from the structural features of rural society, two other major limitations of these programmes — leakage and bureaucratic

inefficiency — relate to the administrative machinery of the respective state governments. Leakage is an extremely wide phenomenon and, for obvious reasons, it is undocumented or not researched. It is, therefore, not possible to comment on whether this deterrent on development activities is relatively more or less in Uttar Pradesh and Bihar. But it is very likely that the issue of bureaucratic inefficiency has become more serious in the two states in recent period. Uttar Pradesh and Bihar are the two states where a new class of people has acquired ruling powers in recent period (intermittently in Uttar Pradesh, but uninterruptedly in Bihar) and this has some obvious implications for administrative process for several reasons. As this new class is new to the seat of power, it does not have any experience of ‘running an administration’ and secondly, a clear contrast exists between the social background of the new ruling class and the existing bureaucracy, the latter aspect making the dialogue between the two groups a strained one. There is also a tendency for each group to accuse the other for tardy development administration in the region. An escape from this scenario is possible only through a positive socio-political dynamics; but what could possibly help to create an element of trust or promote meaningful dialogue between them are a few success stories of development, emanating from their joint effort. Mediation by a ‘third party’ under such circumstances is generally useful and potential agencies to play that role are civil society organisations with high credibility, and the international development agencies.

Public Distribution System

The Public Distribution System (PDS) in India has the twin objective of providing price-support to the producers of food grains at one hand and simultaneously enhance the accessibility of food grains by the vulnerable sections of the population through providing some subsidies. The PDS had started in late sixties but was restricted to urban and food deficit areas till the late seventies. The welfare (i.e. poverty-reducing) dimension of the PDS has gained importance since the early eighties and it now covers the entire country. In view of the low level and uncertain availability of food grains and further, the meagre income levels of BPL families, PDS is an extremely potent policy instrument for reducing poverty ratios and some states in India (particularly, four southern states of Andhra Pradesh, Tamilnadu, Karnataka and Kerala and the eastern state of West Bengal) have implemented PDS far more effectively to strengthen their food security system and reduce the poverty ratios. But unfortunately, because of the lack of political commitment and administrative inefficiency, the system has remained largely ineffective in many poor states including Uttar Pradesh and Bihar.

distribution of food grains through PDS' and the 'percentage of rural people poverty line' (Table 14).

Table 14 : Status of Public Distribution System in Indian States (PDS)

States	Per capita distribution of food grains through PDS (kg/yr) (1993-94)	Percentage of rural people below poverty line (1993-94)	Diversion as percentage of PDS distribution	
			Rice	Wheat
Andhra Pradesh	33 (2)	28.9 (11)	19	15
Bihar	6 (10)	63.5 (1)	64	44
Gujarat	13 (6)	35.4 (4)	21	23
Haryana	5 (12)	25.2 (13)	44	53
Karnataka	18 (5)	41.0 (6)	18	30
Kerala	63 (1)	31.1 (10)	23	28
Madhya Pradesh	6 (11)	45.4 (4)	24	20
Maharashtra	13 (7)	47.8 (2)	30	26
Orissa	12 (4)	40.3 (7)	54	39
Punjab	1 (14)	25.2 (14)	40	69
Rajasthan	13 (8)	47.5 (3)	36	31
Tamilnadu	19 (3)	36.7 (8)	33	24
Uttar Pradesh	4 (13)	41.6 (5)	49	46
West Bengal	19 (4)	27.3 (12)	34	40
India	16	36.7	31	36

Source : Mooij (2000)

The varying levels of income transfer to the poor and the consequent impact of this substantial subsidy programme on reduction of poverty levels is related not only to the amount of food grains allotted to various states, but also to the functioning of the delivery system. The proportion of food grains diverted to the open market from the PDS is very high in both Uttar Pradesh and Bihar — for rice, it is 49 percent in Uttar Pradesh and 64 percent in Bihar, compared to the national average of 31 percent (Radhakrishna et al, 1947). Although the potential has not been realised in Uttar Pradesh and Bihar, one may safely conclude that the PDS provides a valuable mode of state intervention towards reduction of poverty, particularly in rural areas.

Micro-financing by Banks

In recent periods, one of the major state initiatives for helping the rural poor has been the programme of micro-financing by the banks. Although banks are not strictly part of the

government system, they are generally required to provide the credit facilities for many development programmes of the government and substantial micro-financing that banks have undertaken in recent years is a part of that practice. For India as a whole, no less than 1.97 lakh Self-Help Groups (SHGs) were provided micro-finances by various banks, the total cumulative loan assistance being Rs 1026.3 crores (NABARD, 2003). The amount of outstanding loan per SHG was Rs 22.2 thousand, which may be considered as adequate for financing the small income-generating schemes that its members may opt to pursue.

Table 15 : Micro-financing in Middle Gangetic Plain and India

Items	Middle Gangetic Plain				India
	Eastern UP	North Bihar	South Bihar	Overall	
Cumulative no. of SHGs financed by banks (`000)	11.1	2.2	1.7	15.0	197.6
Cumulative amount of credit disbursed (Rs lakh)	1078.6	243.0	132.8	1454.4	102630.0
Average amount of outstanding credit per SHG (Rs `000)	NA	NA	NA	NA	22.2

The NABARD document also reports that there are 15.0 thousand SHGs in MGP which have received bank finance, but the total number of SHGs will be larger in the region as there are many which did not receive any bank finance. However, from the reported number of bank-supported SHGs in MGP as well as in three of its sub-regions, one can easily make out that the phenomenon of micro-financing has been of much lesser magnitude in MGP. A total of 15.0 bank-financed SHGs in the region is just 7.6 percent of the total number of such SHGs in India, although nearly 15 percent of country's population and even a larger share of its poverty-stricken population reside there. Within the MGP, there is again great disparity between Eastern Uttar Pradesh on the one hand and the two plains of North and South Bihar on the other.

A very large share of these SHGs is indeed women SHGs and their functioning demands considerable direct participation by their limited membership strength (generally less than 20). These women SHGs are, therefore, able to attract women from poorer households, although not all of them might be BPL ones. It is in this background that micro-financing by banks is now regarded as one of the most potent strategies for poverty reduction and, as discussed later, these

SHGs have also shows appreciable results vis-à-vis certain social development as well as empowerment of rural women.

3.3 Non-Governmental Organisations and Rural Poverty

The concept of a ‘developmental state’ has been central to the process of Indian planning and in the post-independence strategy of development, the government was always treated as the principal, if not, the sole agency. A sizeable public sector, an expanding social sector to cover mainly health and education, a number of welfare programmes to help various marginalised sections of the society were all part of the state-led programme of development. There were at least some limited areas where this strategy of development had shown some positive results (like infrastructural development, industrial growth, agricultural growth in Green Revolution areas etc.) but its effectiveness for removing rural poverty or improving the living conditions of marginalised communities has been rather limited. Increasing bureaucratisation of the development administration and the resulting inefficiency was often identified as the main reason for limited impact of government’s development efforts. The process of bureaucratisation had also meant that in most such development programmes, the level of participation of the rural poor was very low, reinforcing bureaucratic inefficiency and leakage of the resources.

The non-governmental organisations (NGOs) have therefore gradually appeared in the scenario as a new development institution and their impact is now visible in many areas. Although some of these NGOs have tried to contest the state or sometimes even reforming it, the dominant orientation of these NGOs have been ‘completing the state’. Quite expectedly, the emergence of these NGOs was more in those parts of the country which had high literacy rates, greater presence of mass media, experience of social mobilisations, and higher political participation. In essence, all these characteristics together represented what has often been described as ‘social capital’ and the regions with higher levels of social capital were indeed able to display a higher social sensitivity to the challenges of unfinished tasks of development through forming a number of NGOs to help both the state and the people. Apart from this social commitment, these NGOs had also acquired their strength from the element of voluntarism and the flexible ways of their functioning that characterise all of them.

The vast region of MGP, whose social capital base is rather weak, has not witnessed the level of momentum that NGOs have been able to generate elsewhere in the country, but such NGOs

are also active here, albeit in lesser numbers and with some structural limitations. A recent survey (ADRI, 2002) had identified at least 450 such NGOs operating in Bihar. The operational focus of these organisations was also very varied — women development, health, primary education, income-generating activities, agricultural extension services, micro-financing and the likes. A large number of women SHGs that were operating in Eastern Uttar Pradesh (as discussed earlier) also indicate that NGO activities are present in that sub-region of MGP too.

The NGOs that are operative in either Uttar Pradesh or Bihar are very scattered and there is no federating body which coordinates their activities or documents their achievements. However, the results of a UNICEF-sponsored survey in Bihar (Ghosh, 2002) indicate that at least some of them function with sufficient commitment, ability and integrity to help the rural poor (Table 16). From a survey of about 800 SHGs in Bihar, it was found that these SHGs have much improved the living conditions of their members through ‘lessening of loan from traditional moneylenders’ (48.2 percent), ‘enrolment of their children in schools’ (35.3 percent) and ‘their higher participation in household decisions’ (30.3 percent); other benefits, although of smaller magnitude, were higher income opportunities, more access to health services, lesser alcoholism and lesser violence against women. These women SHGs are, however, very small grass-root organisations and they almost invariably need the assistance of supporting mother NGOs which promote several such SHGs simultaneously. Such mother NGOs or SHGs are not probably numerous in MGP, but this illustration amply indicates their great potential in reducing poverty.

Table 16 : Impact of Women Self-Help Groups (SHG) on the Life of Their Members

Phenomenon	Percentage distribution of women SHGs by type of impact			
	Unchanged	Moderately improved	Much improved	Total
Income opportunities	15.0	64.2	19.9	100.0
Lessening of loans from traditional moneylenders	10.2	41.6	48.2	100.0
Enrolment of children in schools	17.7	47.0	35.3	100.0
More access to health services	25.6	53.8	20.6	100.0
Alcoholism among husbands/ other villages	43.3	35.3	21.4	100.0
Violence against women	38.3	41.3	16.9	100.0
Women’s participation in household decision-making	16.9	52.7	30.3	100.0

Source : Ghosh (2002)

While comparing the role of state administration and NGOs in poverty alleviation programmes, it should be noted that works of standardised and repetitive nature may be performed well by a conventional state bureaucracy, even when undertaken on a big scale. But the normal bureaucracy is generally not adequately equipped to respond to the diverse needs of the rural poor and more so in complex and changing situations. Thus, the bureaucracy is often found lacking in promoting rural development effectively. Further, its usual top-down approach also prevents any ‘participation’ of the rural poor in development programmes meant for them; the bureaucracy has a tendency to ‘impart’ development to the rural people, not ‘promote’ it.

3.4 Possible Areas of Interventions of IFAD

The development gap in rural India is so large that in choosing an area of intervention, any development agency faces the problem of ‘too many’, and not ‘too few’. From the morphology of backwardness of MGP that was discussed in detail earlier, it is obvious that the focus of such interventions could either be the production sector of rural economy (both farm and non-farm), or infrastructural facilities, or the human resource base or direct welfare programmes meant for highly marginalised sections of rural society. An actual point of intervention can possibly be identified best by taking into account explicitly the technical and social specificities of the region and in consultation with the experienced development functionaries. The following two broad principles, however, should be borne in mind while choosing an area of intervention:

- (a) First, the intervention should be such that it ‘enables’ the rural poor to help themselves, rather than what ‘provides’ them with some immediate relief. Admittedly, for some households suffering from acute levels of poverty, enabling activities may not be meaningful (one cannot send a hungry child to school), but this should not undermine the importance of enabling interventions, in the absence of which all assistance are likely to become a recurrent need.
- (b) Secondly, all interventions should try to ensure that besides their direct positive impacts they are also able to generate sufficient indirect benefits, all resulting in high ‘multiplier effect’ of the interventions. This is more relevant when the interventions are made with relatively limited resources. For example, connecting a village through an all-weather road to the nearest transport route is likely to bring its residents more benefit than providing its informal community centre with a television set to, hopefully, widen their exposure to mass media.

The actual points of interventions, as suggested before, should better be chosen in consultation with local people, functionaries and experts; but such a choice involves several dimensions, each having its own implication vis-à-vis the expected impact of the interventions. The three major dimensions of this foundational exercise are — (a) choice of agency; (ii) choice of sector; and finally (iii) assessment of attending risks.

Choice of Agency

The two broad categories into which various development agencies can be divided are — government and non-government. The government administration, although impaired with such limitations as inflexibility and lack of accountability, is the only agency which is ‘omnipresent’, reaching up to the block level and, taking into account the Panchayati Raj Institutions (PRIs), its reach (albeit partial) extends up to the ‘panchayat’ level. For poverty-related interventions that enjoy substantial resource base and intend to cover a very large section of the population, the government agency probably provides the only option. However, apart from the general administrative set up of the government which deals with civil and development administration simultaneously there are also a number of semi-autonomous agencies/corporations within the government, each with a specific development agenda (for example, women development corporation, scheduled caste welfare corporation, food and civil supplies corporation etc). As these corporations are free from the burden of general administration, they have an advantage vis-à-vis development programmes in general and PAPs in particular.

The broad group of NGOs is again a heterogeneous one, comprising at one end the large number of smaller NGOs operating at the grass-root level and a small number of larger NGOs, some of them acting as mother NGOs for the smaller ones and other specialising on such developmental agenda like training, advocacy, research, developmental planning, evaluation and the like. From the perspective of the international agencies like IFAD or other national/ international donor agencies, it is the latter group of larger NGOs that are probably more appropriate.

Choice of Sectors

This particular dimension of the intervention strategy indeed constitutes a complex issue since, as mentioned before, the development gaps in rural areas are too numerous. Thus, it is

extremely difficult to prepare an exhaustive list of these development gaps and even more so to rank them in terms of the ‘criticality’ of their negative impacts on the levels of poverty. However, bearing in mind the resource-related and structural determinants of rural poverty in MGP (or even rural India in general) the following sectors appear to be in need of some additional support in the immediate context.

- (i) To begin with, IFAD may consider some interventions that strengthen the ‘production system’ in the rural areas of MGP, covering both agricultural and non-farm sector. Such a sectoral choice is well-founded on the experience that substantial poverty reductions, wherever they have occurred, have often been a growth-mediated phenomenon. In view of its high soil fertility, this option is also a cost-effective one in the context of MGP.
- (ii) The government already spends a considerable amount of its resources in maintaining an administrative structure for delivering such services as health, education, subsidised food articles etc. That this ‘service delivery system’ is not able to achieve its full potential is related not so much to its resource base as to its organisational weakness. With some planning exercise, training inputs and moderate additional resource support, it is possible to enhance the efficiency of the existing service delivery system which is very likely to reduce poverty levels in rural areas of MGP. Avoiding the difficult option of allocating additional resources for any PAP, this approach would imply more efficient use of the financial resources that the government is already spending on rural development.
- (iii) With the constitutional emphasis on the PRIs for local self-governance in rural areas, this grass-root institution has already emerged in MGP, although their functioning is as yet impaired for several reasons, including the inexperience of the newly elected members of the PRIs in running or participating in the process of self governance. The effective functioning of PRIs demands substantial efforts towards orienting their members about objectives and strategy of PRIs and providing them with training for various operational skills. The PRIs have often been understood (even by senior government functionaries) at best as an instrument of ‘decentralisation; that this decentralisation is basically aimed at promoting ‘participation’ of the rural people in development process often remains ignored. Strengthening of PRIs, therefore, could be an important sectoral choice for interventions by IFAD or other development agencies. In contrast to intervention in production system or service delivery systems mentioned earlier, this is an ‘institutional’ intervention which could meet the challenges of structural determinants of rural poverty.

- (iv) The choice of a sector for appropriate intervention may also be guided by a 'target group' approach and 'women empowerment' is possibly the most required intervention under such an approach. The rationale for this approach is not restricted to its welfare implications alone (after all, women from a poor household suffer more from its low income level than their male members); a programme for women empowerment also means releasing a new 'social force' for development in rural areas which could gradually make all external supports less necessary.
- (v) Within the target group approach, a second sectoral choice for intervention could be 'empowerment of the highly marginalised people'. The division of Indian society along religion and caste is so deep that it is often seen to pervade even the planning process and the implementation machinery. Thus, rural development and poverty alleviation programmes, even when planned and implemented with care, have often bypassed the most marginalised sections of society, particularly the scheduled castes. Again from the perspectives of both - welfare and empowerment - intervention that are targeted for these highly marginalised groups are extremely useful.

Assessment of Risks Involved

Any intervention programme for poverty reduction in rural areas, be it in association with the government departments or the NGOs, is certain to be associated with a few risks. The choice of a particular partner agency or a specific sector of intervention should, therefore, be made after an assessment (howsoever subjective) of those attending risks. The extent of these risks will obviously vary from place to place and also between government and non-government agencies, but overall these risks may be grouped as follows:

- (i) Institutional risk: Many development agencies in India, either government or non-government, fail to achieve their stated goals because of certain limitations which persist even when they are supported by substantial resources from outside. Among others, these limitations include inadequate technical skill to prepare projects, insufficient management ability to implement projects through working with a range of local level partners, inability to provide training and other professional support to those partners and finally, inability to design an effective monitoring and evaluation plan.
- (ii) Programme overlapping: In choosing any fresh intervention, there is always a risk that it may overlap with the activities of other donor agencies or even of the government. It is

not the thematic overlapping that is serious here (after all, two agencies can always work on the same sector), but geographical overlapping should be carefully avoided.

- (iii) Focus distortion: Effective development agencies generally attain their success through focussing their attention on areas where they have a long experience of working. There is, however, a risk that influx of resources from a donor agency like IFAD may encourage the existing agencies to move away from their current focus towards uncharted areas where the funds are available. While choosing partner organizations, it is therefore necessary that their organizational history is carefully studied.
- (iv) Capturing of the programmes : An intervention programme, if implemented successfully, carries a risk that its benefits will be largely ‘captured’ by the relatively better off rural households and this risk actually increases if the programme entails material benefits. It is because of this risk that interventions that aim at enhancing awareness, knowledge endowment, social mobilisation and empowerment are preferred to programmes that involve material benefits.
- (v) Sustainability: All effective intervention programmes are such that they have a credible ‘exit strategy’, implying that at the end of the programme, the targeted rural people do not relapse into the level of deprivation where they were before the programme. Since external intervention sometimes provides a pretext for the government not to provide the services it is supposed to, the absence of an exit policy can be very harmful in such cases. One would consider this to be an element of risk in an intervention strategy because sometimes even after planning for an exit strategy, it is not really implemented.
- (vi) Corruption: The practice of corruption and financial mismanagement might have its origin in the government administration, but presently the evil spreads to a large part of the NGOs too. The phenomenon of corruption, as mentioned before, is undocumented and unresearched; one cannot, therefore, judge whether this risk is relatively more or less in Uttar Pradesh and Bihar. But it is extremely desirable that a choice about interventions (either by IFAD or other development agencies) is preceded by an exercise (by a small group of knowledgeable persons) to assess the relative corruption-related risks of different intervention options.

Some Suggested Interventions

The literature on rural development is replete with the observation that many development programmes have indeed failed because a top-down approach where the experts, notwithstanding the best of their intentions, have chosen intervention strategies based on their own perception about the needs of the people. Leave alone any consultations at the grass root, formation of many of these programmes did not even involve the local level development functionaries, either from the government or from NGOs. A process of consultation should therefore be a *sine qua non* for any sincere effort towards identifying interventions programmes that are likely to ensure their positive impacts. However, based on the preceding discussions on the nature and depth of rural poverty in MGP and its technological and structural determinants, one can easily identify a few suggestive areas; these programmes, however, should be finally accepted only after a careful assessment of their costs and benefits, organisational feasibility and the involved risks. After a careful review, the following six areas are suggested for substantive interventions by the IFAD — (i) Extension Services for Rural Economy; (ii) A Benchmark Planning Exercise for Disaster Preparedness; (iii) Strengthening of PDS; (iv) Capacity Building of PRI; and (v) Promotion of Women Self-Help Groups.

- (i) Extension Services for Rural Economy: In the initial days of planning, extension services (mainly for agriculture) were paid much attention and this responsibility used to be shared then by the agricultural universities, some farmers' organisations (like Indian Federation for Farmers' Cooperatives, IFFCO) and even Fertiliser Corporation of India (FCI). Of these, farmers' organisations are not very active in MGP and FCI's contribution to extension services is limited to fertiliser use only. That leaves agricultural universities as practically the sole agency for extension services in MGP, but these universities are so crippled with financial constraints that these services are now practically unavoidable. As regards the extension services for non-farm sector, the gap is even wider as this sector was not considered to be of much importance until recently.

With expansion of literacy and wider exposure to the mass media, the need for extension services may not be very high among the relatively better off rural households, but the poorer ones could possibly improve their present income levels with proper extension services. These services should now include both agriculture as well as such non-farm activities like animal husbandry and poultry. In selected areas, the extension services could also include rural industries. At present, NABARD is promoting rural industrialisation through DRIP (District Rural Industrialisation Programme), but its main

contribution to the programme is the provision of credit. If it were possible for IFAD to add an element of extension services to DRIP, its impact could certainly be enhanced.

Although the specialised personnel from agricultural universities will be an obvious choice to manage such extension services, many of the existing NGOs could also be involved in this programme to fulfill their own agenda of promoting additional income generating activities among the rural poor.

- (ii) A Benchmark Planning Exercise for Disaster Preparedness: Occurrence of floods, as discussed before, is a very frequent phenomenon in MGP, particularly in the area north of the Ganges. Although much less frequent, the phenomenon of drought is also not altogether absent in the region. While a lasting solution to this huge problem lies in building protective embankments on flood-causing rivers and tributaries, an effective 'disaster management' system could considerably reduce the human sufferings and loss of assets that floods cause year after year. Designing of such a system, however, requires an elaborate planning exercise to assess the disaster proneness of different areas, identify the nature and size of the problems likely to be caused by the disasters, the potential source of human resources to face the challenge and the like. This planning exercise should be done at regular intervals (say, every five years) to enhance the disaster preparedness of the state administration; but it is the first benchmark exercise which is most challenging in terms of both resources and methodology. The central government has, therefore, organised a cell to help the various state governments to undertake this exercise, but neither Uttar Pradesh nor Bihar has utilised this opportunity because of resource limitations at their own end. It may be desirable for the IFAD to provide some resource support to either the state governments of Uttar Pradesh and Bihar or to any other professional agency working there to undertake this task of benchmark planning exercise for disaster preparedness. The respective state governments can thereafter keep on updating the plan with its own resources.
- (iii) Strengthening of PDS: Several studies, as mentioned before, have demonstrated the strong linkage between working of the PDS and the prevalence of poverty. Unfortunately, although the poverty levels are among the highest in Uttar Pradesh and Bihar, the functioning of the PDS is one of the weakest in these two states. The current stock of food grains with the Food Corporation of India (FCI) is more than 40 million tonnes causing

storage problems for the Corporation, and it is often too willing to allot additional food grains to the desiring state governments. If the state governments of Uttar Pradesh and Bihar could streamline the functioning of their Departments for Civil Supplies, it could easily reduce the rural poverty ratios there, without incurring much additional resources.

Although this intervention may require modest additional resources, it basically involves a major organisational change in state administration which, in turn, demands certain political commitments at the state level. Besides providing the modest resource support, IFAD could also probably undertake an exercise in advocacy to enthuse the state government to undertake this task.

- (iv) Capacity Building of PRI: Among all the institutional interventions that could change the structure of rural society and thereby help reducing rural poverty levels, capacity building of PRIs is probably the most potent one. The system already enjoys considerable constitutional support, but in the absence of adequate efforts towards capacity building, it is yet to demonstrate its potential in decentralising development administration and promoting local level participation in the process. This limitation is even more serious in Uttar Pradesh and Bihar where PRI in its newer form has emerged very recently.

The most urgent step towards capacity building of PRIs at this moment is extensive training programmes for its functionaries at all levels. The content of these training programmes should include scope and objectives of the system, its administrative and financial procedures and the strategy of social mobilisation to ensure people's participation. Since all these issues together cover a wide range of training inputs, the training should be split into thematic components, requiring multiple training programmes for the PRI functionaries. It would also be useful to help the state governments establish a specialised 'Panchayati Raj Resource Centre' which could concentrate its attention on the PRIs alone, providing it with training, planning, documentations, research and evaluation inputs.

- (v) Promotion of Women Self-Help Groups: The concept of Self-Help Groups for women is nearly a decade old in India, but it has really gained a momentum in later half of the last decade. The initial impetus for the emergence of these groups was the welfare programme of DWCRA (Development of Women and Children in Rural Areas), but later other

agencies have also found these groups to be very effective for implementing their own welfare programmes. In particular, the SHGs now enjoy the support of NABARD for implementing SGSY. Much of the success of SHGs is also due to the efforts of a number of NGOs that are operating at the grass-root level. Further, to a large extent, the whole SHG movement has been a self-evolving process and its organisational roots are therefore very strong.

There are several ways through which the SHG movement can be strengthened in the rural areas of MGP. Since mother NGOs almost invariably act as the initial motivator for forming the SHGs, efforts should be made to expand and strengthen these mother NGOs. Apart from the financial support, these mother NGOs can also be given training support so that their members can, in turn, train the SHG members in such fields as health, population education, income-generating programmes, functional literacy, functioning of PRI and the like. Till date, at least in Uttar Pradesh and Bihar, the main thrust of the SHGs has been thrift and credit-related activities. This is undoubtedly a crucial requirement for rural women from poor households, but there exists enough scope for these SHGs to expand their activities to other areas as well.

- (vi) Policy Dialogue on Institutional Issues: With the persisting duality of Indian economy between its rural and urban sectors and the recurring poverty, specially in rural areas, it is now widely accepted that ‘institutions matter’. The agrarian structure prevalent in the rural areas of Uttar Pradesh and Bihar, a result of historical evolution of land rights since the colonial days, is a classical example of how inefficient institutions can hamper growth even when substantial resources are expended to strengthen the non-institutional dimensions of economy. ‘The overwhelming majority of the peasants (in Uttar Pradesh and Bihar) is landless or is marginal farmers and insecure tenants. The labour cost advantage of the small farmer in productivity is outweighed by severe constraints on his access to credit, marketing, technological information, and above all to a controlled supply of water, a crucial factor in a country where large parts are ... flood-prone’ (Bardhan, 2001). In other words, the existing institutional structure of rural economy of the two states constrains efficient use of two of the most vital inputs for the agricultural sector — land and water. It is obvious that if this institutional constraint was an obstruction to the development strategy of earlier years, it would be equally so now for the intervention suggested above. The post-independence experience elsewhere in India

clearly suggests that changes in these archaic institutions are possible only when political commitments are very sound. This may not, indeed, be the case in Uttar Pradesh and Bihar. But some 'moderate' institutional reforms can probably be planned there even under the present political regimes. Such limited land reforms (like the distribution of government land to the landless, either for homestead or cultivation purposes, acquiring of large surplus land held by religious trusts etc.) is certainly feasible in these two states as are administrative efforts to ensure equal access to various common properly resources (including water) by different communities.

One of the possible ways of planning such institutional changes is to start a policy dialogue with the senior state functionaries, both from the legislature and the administration. However, it is very desirable that such a dialogue at the higher level is preceded by rounds of discussion at the lower levels with social activists, informed politicians and researchers in the field.

SECTION IV

CONCLUSION

4.1 Dimensions of Rural Poverty

The process of long-term economic growth in India has not been particularly weak, specially during the last two decades of the eighties and nineties. The growth rate of per capita income has been around 5 percent during this period and had the benefits of this growth reached every section of the population and every region of the country, the problem of absolute poverty would have been much smaller in India. But, unfortunately, the wide social and regional disparities in the impact of growth have meant the continuation of this problem. The vast area of MGP is one of the victims of these regional disparities in development, where both the growth process as well as the pace of rural poverty reduction has been much slower than elsewhere in India. Comparable estimates, relating to the year 1993-94, show that while the rural poverty ratio was 36.7 percent for India as a whole, it was much higher at 51.8 percent in MGP.

One of the most striking features of rural poverty in MGP is that unlike other poverty-stricken regions in the country, the natural resource base of this region is very substantial. Being a river valley, not only the natural fertility of the soil is very high here, the water resources too are abundant here and the region also enjoys a high level of bio-diversity. But, unfortunately, this natural advantage of the region is far more than negated by a number of other factors — demographic, economic and structural, all inhibiting the growth of its rural economy and causing very high levels of rural poverty.

To begin with, the demographic pressure on its land resources is one of the highest in whole of the country and even in the world. The density of population here is 803 persons per sq km, more than two-and-a-half times the national average of 324 persons per sq km. In terms of rural population per hectare of cultivated area, this demographic pressure is relatively less, but it is still twice as much. While a hectare of land is required to support only one rural family for the whole of the country, in MGP it has to support two rural families and in some parts if it is even three rural families. With its urbanisation level at barely 11.0 percent, the region does not enjoy the support of even a modest secondary/tertiary sector which could lessen the demographic pressure on its land resources even marginally.

The functioning of its rural economy is also very traditional, thanks to the agrarian relations in the area which is a legacy of the tenurial system of Permanent Settlement, introduced during the colonial period. Although the statutory base of this unproductive tenurial system was removed after independence (in both Uttar Pradesh and Bihar), it was not able to alter the extremely inequalitarian land distribution pattern in the area. A large part of the agricultural land here is cultivated not by its owners, but by sharecroppers. Further, a very large number of agricultural holdings here is so small that their owners are unable to cultivate it using modern agricultural inputs. Nearly 70 percent of the rural households in MGP are either landless or own less than one acre of land; the corresponding figure for India as a whole is less than 55 percent. Land is the principal source of livelihood in rural areas and it is, therefore, not surprising that the rural poverty ratios are one of the highest in MGP. Besides demographic pressure and iniquitous land distribution, the rural economy of MGP also suffers from another disadvantage, because of the high flood-proneness of the area. Nearly two-third of the area under MGP is flood-prone, causing frequent damages to property and, more importantly, deterring agricultural investments. The technological base of the agricultural economy in MGP is, therefore, much weaker than its potential in terms of both irrigation facilities and the use of such modern inputs like HYV seeds or fertilisers.

The rural poverty ratios have been very high in several regions of the country in the past. But many of them have been able to reduce this high level through accelerating the growth process of the agricultural economy, promoting non-farm activities and strengthening the poverty alleviation programmes including the PDS. But except for some moderate growth in its agricultural sector, MGP has not much witnessed other poverty-reducing activities and, therefore, the pace of poverty reduction here has always been slower than in the rest of the country. In 1993-94, the national rural poverty ratio had stood at 36.7 percent, with the ratio standing at 41.6 and 56.5 percent in Uttar Pradesh and Bihar, respectively. In 2000-01, this difference has actually widened; the national rural poverty ratio now stands at only 20.6 percent, but in Uttar Pradesh and Bihar they are at 31.2 and 44.3 percent, respectively. The policy of economic liberalisation that now guides the Indian economy can actually make this difference even wider unless specific strategies are adopted to meet the challenge.

4.2 Policy Options for Poverty Reduction

In identifying effective policies for poverty reduction, it should be borne in mind that both the growth process and the poverty alleviation programmes are of immense relevance for poverty reduction. Admittedly, some studies using aggregate national-level data have emphasised the

greater role that the growth process has played in reducing rural poverty in recent period; but the disaggregated data for backward regions like Uttar Pradesh and Bihar clearly indicates that the contribution of growth of aggregate output to poverty reduction is much limited here. If one analyses the experience of the eighties, it further points to the substantial potential of properly implemented PAPs towards reducing poverty.

In the past, all interventions towards poverty reduction had been made by the government. Although such interventions had achieved limited results, specially during the eighties, the increasing bureaucratisation of the programmes during later years had made them very weak. Fortunately, a large number of NGOs have appeared in the development field during the nineties whose commitment, flexibility and professionalism together have often resulted in more cost-effective and efficient PAPs throughout the country, including such backward areas like Uttar Pradesh and Bihar. Any serious policy exercises for poverty reduction in rural areas should, therefore, consider making as extensive a use of these NGOs as possible to ensure the success of PAPs, and in the process, indirectly enhance the capacity of these NGOs to undertake bigger developmental roles in future.

Focussed efforts towards reducing poverty levels have started in India during the late seventies. But for a long time, these efforts had primarily aimed at providing material benefits to the poor, either free or at subsidised rates. Such efforts rarely promote the concept of self-help without which it is not possible to make a lasting impact or poverty scenario. Here again, the nineties have witnessed several programmes which were expected to provide enabling services to the rural poor and these programmes, specially when managed by NGOs, have been successful in many places including Uttar Pradesh and Bihar. The PRIs and SHGs are two of the most potent strategies for promoting structural changes in rural society which could enable the rural poor to help themselves.

References

1. Centre for Monitoring Indian Economy (CMIE) (2000) : 'Profile of Districts', Mumbai.
2. Pardhan, P (2001) : 'The Nature of Institutional Impediments to Economic Development' in 'A New Institutional Approach to Economic Development' by Satu Kahkonen and Moneur Loson (eds.) Vistaar Pub., New Delhi.
3. Bhalla Surjit S and Kaur Ravinder (2000) : 'Poverty in India : Towards New Policies' in 'Economic Reforms for the Poor' by Gangopadhyay S and Wadhwa W (eds.), Konark Publication, New Delhi.
4. Chaddha G K (1997) : 'Access of Rural Households to Non-farm Employment : Trends, Constraints and Possibilities', in 'Growth, Employment and Poverty : Change and Continuity in Rural India' by Chaddha G K and Sharma Alakh N (eds.), Vikas, New Delhi.
5. Datt, Gaurav (1998) : 'Poverty in India and Indian State', Indian Journal of Labour Economics, Vol 41., No. 2, New Delhi.
6. Department for International Development (DFID) (1999) : 'India : Poorest Area Civil Society Programme', New Delhi (mimeo).
7. Ghosh, P P (2002) : 'Mapping of Women Self-Help Groups in Bihar', (UNICEF-sponsored survey), Asian Development Research Institute (ADRI), Patna (mimeo).
8. Ghosh, P P and Sharma Alakh N (1995) : 'Seasonal Migration of Rural Labour in Bihar', Labour and Development, Vol., 1, No. 1, (New Delhi).
9. Government of India (2003) : 'Economic Survey, 2002-03', New Delhi.
10. International Institute of Population Sciences (IIPS) (2000) : 'National Family Health Survey, 1998-99', (Internet Version), Mumbai.
11. Mooij, Jos (1999) : 'Food and Power : The Political Economy of the Public Distribution System in Bihar', Institute of Social Studies, The Hague (mimeo).
12. National Bank for Agriculture and Rural Development (NABARD) (2002) : 'NABARD and Micro-finance, 2001-02', Mumbai.
13. National Council for Applied Economic Research (NCAER) (1996) : 'Human Development Profile of India : Inter-state and Inter-group Differentials', Vols. 1-2, New Delhi.
14. National Institute of Rural Development (NIRD) (2000) : 'India Rural Development Report : Regional Disparities in Rural Development and Poverty', Hyderabad.
15. Parikh K S and Radhakrishna R (2002) : 'India Development Report, 2002', Oxford, New Delhi.
16. Planning Commission (2003) : 'Bihar Development Report', New Delhi (forthcoming) (mimeo).
17. Planning Commission (2003) : 'Human Development Report, 2002', New Delhi.
18. Radhakrishna R and Subbarao K with Indrakant S and Ravi C (1997) : 'India's Public Distribution System : A National and International Perspective', World Bank Discussion Paper No. 380, The World Bank, Washington DC.
19. World Bank (1997) : 'India : Achievements and Challenges in Reducing Poverty', Washington DC.

APPENDIX I

WHAT COULD SOMEONE LIVING AT INDIA'S POVERTY LINE CONSUME PER DAY?

Based on average (all-India) prices, the average food expenditure (the composition corresponds to the all-India averages for the 30-40 percent fractile in that year) of a person living in rural areas at India's poverty line in 1993-94 would have enabled the consumption of :	
Item	Consumption/day
Grain (60% rice; 40% wheat)	400 gms
Pulses (33% masur, 67% arhar)	20 gms
Milk	70ml.
Eggs	0.2 (no.)
Edible oil (60% mustard; 40% groundnut)	10 gms
Vegetables (52% potato; 19% onion; 17% brinjal; 12% tomatoes)	120 gms
Fresh fruit (87% bananas; 13% coconut)	0.1 (no.)
Dried chili	4 gms
Tea leaves	3 gms
After buying such a bundle of food items, the person would have left over about Rs 2/day to put toward miscellaneous non-food items. About one third of India's population cannot afford even this frugal bundle.	

APPENDIX II : 100 MOST BACKWARD DISTRICTS OF INDIA

STATE / DISTRICT		STATE / DISTRICT		STATE / DISTRICT		STATE / DISTRICT	
	BIHAR		DADRA & N HAVELI	50	VIDISHA		RAJASTHAN
1	NALANDA	28	D & N HAVELI	51	SEHORE	76	DUNGARPUR
2	BHOJPUR		JHARKHAND	52	RAISEN	77	BANSWARA
3	AURANGABAD	29	RANCHI	53	BETUL		SIKKIM
4	JEHANABAD	30	GODDA	54	HOSHANGABAD	78	WEST SIKKIM
5	GAYA	31	SAHIBGANJ	55	NARSIMHAPUR	79	EAST SIKKIM
6	NAWADA	32	DUMKA	56	MANDLA		UTTAR PRADESH
7	SARAN	33	DEOGHAR	57	CHHINDWARA	80	SITAPUR
8	SIWAN	34	GIRIDIH	58	SEONI	81	HARDOI
9	GOPALGANJ	35	HAZARIBAGH	59	BALAGHAT	82	UNNAO
10	PASHCHIM CHAMPARAN	36	PALAMU	60	RAJNANDGAON	83	RAE BARELI
11	PURBI CHAMPARAN	37	LOHARDAGA	61	SARGUJA	84	JALAUN
12	SITAMARHI	38	GUMLA		MAHARASHTRA	85	LALITPUR
13	MUZAFFARPUR	39	PASHCHIM SINGHBHUM	62	AURANGABAD	86	HAMIRPUR
14	VAISHALI		HARYANA	63	JALNA	87	BANDA
15	BEGUSARAI	40	KAITHAL	64	PARBHANI	88	FATEHPUR
16	SAMASTIPUR		HIMACHAL PRADESH	65	BEED	89	PRATAPGARH
17	DARBHANGA	41	HAMIRPUR	66	NANDED	90	BAHRAICH
18	MADHUBANI		KARNATAKA	67	OSMANABAD	91	BARABANKI
19	SAHARSA	42	BIDAR	68	LATUR	92	SIDDHARTH NGR
20	MADHEPURA		MADHYA PRADESH	69	BULDANA	93	MAHARAJ NGR
21	PURNA	43	TIKAMGARH	70	GADCHIROLI	94	JHANSI
22	KATI HAR	44	CHHATARPUR	71	YAVATMAL	95	MAU
23	KHAGARIA	45	PANNA		ORISSA	96	KANPUR DEHAT
24	MUNGER	46	SAGAR	72	PHULBANI		WEST BENGAL
25	BHAGALPUR	47	DAMOH	73	KALAHANDI	97	COOCH BEHAR
26	ARARIA	48	KHARGONE	74	KORAPUT	98	JALPAIGURI
27	KISHANGANJ	49	KHANDWA	75	KEONJHAR	99	MALDA
						100	DARJEELING

Source : 'India : Poorest Area Civil Society Programme', DFID, India (1999) (mimeo)

APPENDIX III

STATISTICAL PROFILE OF DISTRICTS IN GANGETIC VALLEY

Region / District	Area (sq km)	Popu- lation (million) (2001)	Sex Ratio (2001)	Region/ District	Area (sq km)	Popu- lation (million) (2001)	Sex Ratio (2001)
Eastern UP				North Bihar (Contd.)			
1. Bahraich	6877	2.38	865	13. Madhepura	1788	1.52	915
2. Gonda	7352	5.63	885	14. Supaul	2420	1.75	920
3. Faizabad	4511	4.11	959	15. Purnea	3229	2.54	916
4. Sultanpur	4436	3.19	980	16. Katihar	3057	2.39	919
5. Allahabad	7261	6.24	888	17. Kishanganj	1884	1.29	940
6. Pratapgarh	3717	2.73	983	18. Araria	2830	2.12	916
7. Varanasi	5092	6.14	916	19. Khagaria	1486	1.28	890
8. Ghazipur	3377	3.05	974	20. Begusarai	1918	2.34	911
9. Jaunpur	4038	3.91	1021	South Bihar			
10. Azamgarh	4234	3.95	1026	1. Patna	3202	4.71	873
11. Mau	1713	1.85	984	2. Nalanda	2367	2.37	915
12. Balia	2981	2.75	952	3. Bhojpur	4098	2.23	900
13. Gorakhpur	3321	5.21	969	4. Buxar	1624	1.40	901
14. Deoria	5445	5.62	982	5. Rohtas	3851	2.45	909
15. Maharajganj	2951	2.17	933	6. Kaimur	3362	1.28	907
16. Basti	3733	2.07	916	7. Gaya	4976	3.46	937
17. Siddharthnagar	3495	2.04	946	8. Jehanabad	1569	1.51	928
18. Mirzapur	4522	2.11	897	9. Aurangabad	3305	2.00	936
19. Sonebhadra	6788	1.46	896	10. Nawadah	2494	1.81	948
North Bihar				11. Munger	3681	1.14	878
1. W. Champaran	5228	3.04	901	12. Jamui	2741	1.40	917
2. E. Champaran	3968	3.93	898	13. Bhagalpur	2570	2.43	878
3. Saran	2641	3.25	965	14. Banka	3019	1.61	908
4. Siwan	2219	2.71	1033				
5. Gopalganj	2033	2.15	1055	Eastern UP	85844	66.62	946
6. Sitamarhi	2643	2.67	893	North Bihar	55348	51.23	931
7. Muzaffarpur	3172	3.74	928	South Bihar	42859	29.81	910
8. Vaishali	2036	2.71	921				
9. Samastipur	2904	3.41	927	Gangetic Plain	184051	147.66	931
10. Darbhanga	2279	3.29	914				
11. Madhubani	3501	3.57	943	India	3287300	1027.00	933
12. Saharsa	4112	1.51	910				

APPENDIX III (CONTD....)

STATISTICAL PROFILE OF DISTRICTS IN GANGETIC VALLEY

Region / District	Decadal growth rate ppn. (91-01)	Density of ppn. (2001)	Urbanisation (2001)	Region/ District	Decadal growth rate ppn. (91-01)	Density of ppn. (2001)	Urbanisation (2001)
Eastern UP				North Bihar (Contd.)			
1. Bahraich	29.6	415	9.9	13. Madhepura	29.5	853	4.5
2. Gonda	25.3	748	6.5	14. Supaul	30.0	724	5.0
3. Faizabad	24.1	805	11.2	15. Purnea	35.2	787	8.7
4. Sultanpur	24.2	719	4.8	16. Katihar	30.6	782	9.1
5. Allahabad	26.7	808	24.7	17. Kishanganj	31.5	687	10.0
6. Pratapgarh	23.4	734	5.3	18. Araria	31.8	751	6.2
7. Varanasi	26.5	1349	26.3	19. Khagaria	29.3	859	6.0
8. Ghazipur	26.2	903	7.6	20. Begusarai	29.1	1222	4.6
9. Jaunpur	21.7	969	7.4	South Bihar			
10. Azamgarh	26.3	938	7.6	1. Patna	30.2	1471	30.2
11. Mau	27.9	1080	19.4	2. Nalanda	18.6	1006	18.6
12. Balia	21.7	923	9.8	3. Bhojpur	24.6	903	24.6
13. Gorakhpur	23.5	1064	16.2	4. Buxar	29.0	864	29.0
14. Deoria	26.6	1036	25.0	5. Rohtas	27.7	636	27.7
15. Maharajganj	29.3	734	5.1	6. Kaimur	30.6	382	30.6
16. Basti	22.7	682	5.6	7. Gaya	30.0	696	30.0
17. Siddharthnagar	26.8	741	3.8	8. Jehanabad	28.6	963	28.6
18. Mirzapur	27.6	468	13.6	9. Aurangabad	30.2	607	30.2
19. Sonebhadra	36.1	216	18.9	10. Nawadah	33.1	726	33.1
North Bihar				11. Munger	20.3	800	20.3
1. W. Champaran	30.4	582	10.2	12. Jamui	32.9	451	32.9
2. E. Champaran	29.3	991	6.4	13. Bhagalpur	27.2	946	27.2
3. Saran	26.4	1231	9.2	14. Banka	24.5	533	24.5
4. Siwan	24.8	1221	2.6				
5. Gopalganj	26.1	1057	6.1	Eastern UP	26.1	776	11.7
6. Sitamarhi	32.6	1214	5.7	North Bihar	29.3	1000	6.7
7. Muzaffarpur	26.7	1180	9.3	South Bihar	27.7	785	14.0
8. Vaishali	26.4	1332	6.9				
9. Samastipur	25.6	1175	3.6	Gangetic Plain	27.7	789	11.0
10. Darbhanga	30.9	1442	8.1				
11. Madhubani	26.1	1020	3.5	India	21.3	324	25.7
12. Saharsa	33.0	885	8.2				

APPENDIX III (CONTD....)

STATISTICAL PROFILE OF DISTRICTS IN GANGETIC VALLEY

Region / District	Literacy (2001)			Region/ District	Literacy (2001)		
	Male	Female	Person		Male	Female	Person
Eastern UP				North Bihar (Contd.)			
1. Bahraich	46.3	23.3	35.8	13. Madhepura	48.9	22.3	36.2
2. Gonda	50.2	22.5	37.3	14. Supaul	53.2	21.0	37.8
3. Faizabad	71.3	44.7	58.3	15. Purnea	46.2	23.7	35.5
4. Sultanpur	71.9	41.8	56.9	16. Katihar	45.5	24.0	35.3
5. Allahabad	70.3	38.7	55.5	17. Kishanganj	42.8	18.5	31.0
6. Pratapgarh	74.6	42.6	58.7	18. Araria	46.5	22.1	39.9
7. Varanasi	79.1	44.3	62.4	19. Khagaria	52.0	29.6	41.6
8. Ghazipur	75.5	44.4	60.1	20. Begusarai	59.7	36.2	48.6
9. Jaunpur	77.2	43.5	60.0	South Bihar			
10. Azamgarh	70.5	42.4	56.2	1. Patna	73.8	52.2	63.8
11. Mau	79.0	50.9	64.9	2. Nalanda	66.9	39.0	53.6
12. Balia	73.2	43.9	58.9	3. Bhojpur	74.8	42.8	59.7
13. Gorakhpur	72.3	40.0	56.3	4. Buxar	72.8	40.4	57.5
14. Deoria	70.8	37.2	54.1	5. Rohtas	76.5	46.6	62.4
15. Maharajganj	65.4	28.6	47.7	6. Kaimur	70.6	38.9	55.6
16. Basti	68.2	39.0	54.3	7. Gaya	63.8	37.4	51.1
17. Siddharthnagar	58.7	28.4	44.0	8. Jehanabad	70.9	40.1	56.0
18. Mirzapur	70.5	40.0	56.1	9. Aurangabad	72.0	42.0	57.5
19. Sonebhadra	63.8	34.3	50.0	10. Nawadah	61.2	32.6	47.4
North Bihar				11. Munger	70.7	48.0	60.1
1. W. Champaran	60.3	33.6	47.5	12. Jamui	57.1	26.9	42.7
2. E. Champaran	51.9	25.9	39.6	13. Bhagalpur	60.1	38.8	50.3
3. Saran	67.8	35.7	52.0	14. Banka	56.3	29.1	43.4
4. Siwan	67.7	37.3	52.0				
5. Gopalganj	63.8	32.8	48.2	Eastern UP	68.9	38.4	53.6
6. Sitamarhi	51.0	26.4	39.4	North Bihar	55.3	28.9	42.1
7. Muzaffarpur	60.2	35.2	48.2	South Bihar	67.7	39.6	53.6
8. Vaishali	64.0	38.1	51.6				
9. Samastipur	57.8	32.7	45.8	Gangetic Plain	64.2	36.7	50.4
10. Darbhanga	57.2	30.4	44.3				
11. Madhubani	57.3	26.6	42.4	India	75.9	54.3	65.4
12. Saharsa	52.0	25.3	39.3				

APPENDIX III (CONTD....)

STATISTICAL PROFILE OF DISTRICTS IN GANGETIC VALLEY

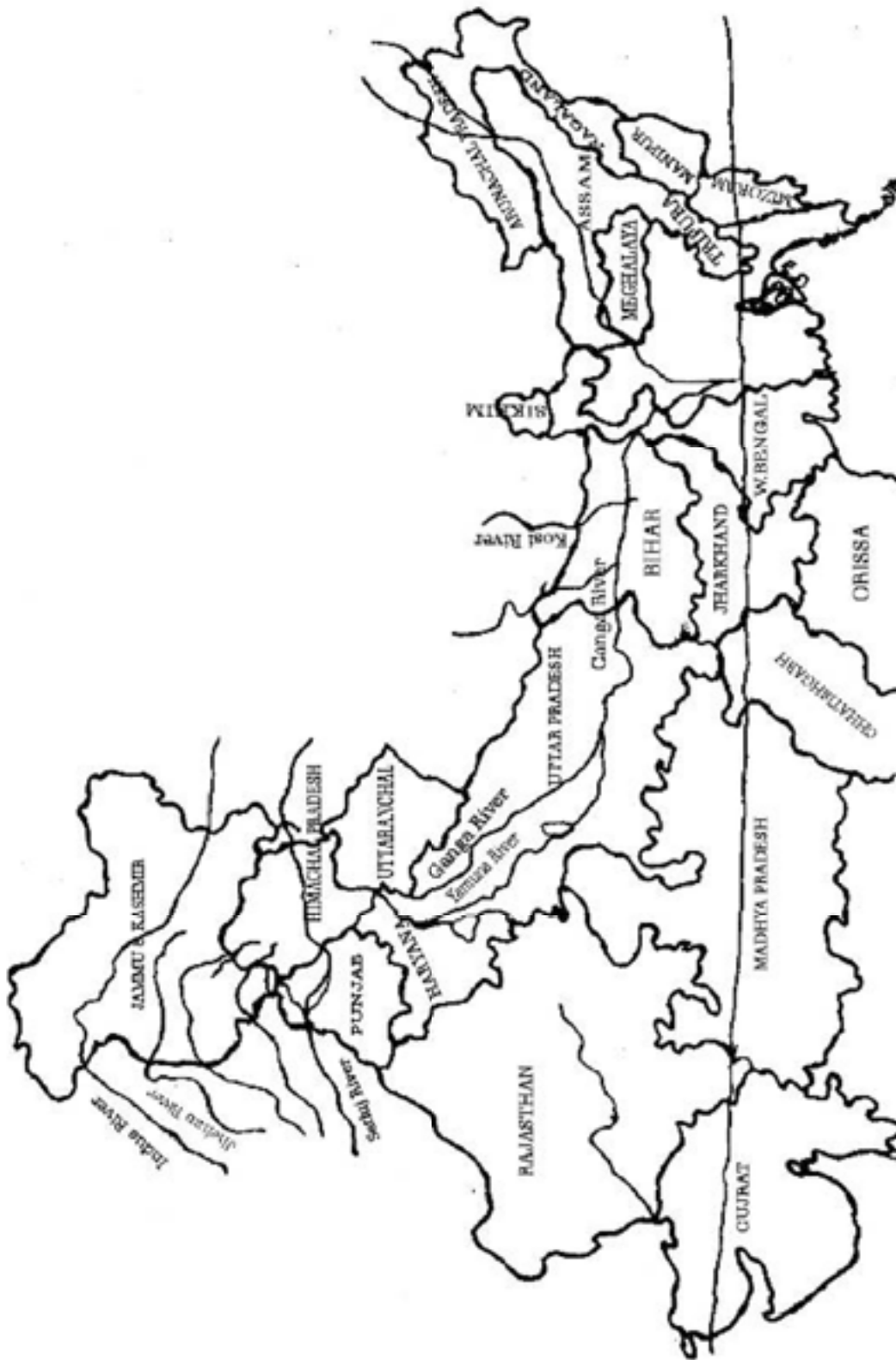
Region / District	Percentage of SC/ST (1991)	Percentage of Muslims (1991)	Rural Poverty ratio (1993-94)	Region/ District	Percentage of SC/ST (1991)	Percentage of Muslims (1991)	Rural Poverty ratio (1993-94)
Eastern UP				North Bihar (Contd.)			
1. Bahraich	16.3	29.9	44.5	13. Madhepura	17.0	10.3	36.9
2. Gonda	16.4	25.4	42.5	14. Supaul	NA	NA	NA
3. Faizabad	23.0	13.4	37.1	15. Purnea	16.0	34.5	44.9
4. Sultanpur	22.0	12.9	53.2	16. Katihar	15.0	39.9	40.6
5. Allahabad	24.0	12.9	30.0	17. Kishanganj	11.0	65.9	36.9
6. Pratapgarh	21.0	13.3	48.0	18. Araria	15.0	40.4	49.0
7. Varanasi	18.0	121.8	22.6	19. Khagaria	14.0	9.7	34.4
8. Ghazipur	21.0	10.1	38.8	20. Begusarai	15.0	12.3	29.9
9. Jaunpur	22.0	9.7	40.9	South Bihar			
10. Azamgarh	26.0	13.0	47.5	1. Patna	15.2	7.5	15.8
11. Mau	22.0	17.9	33.4	2. Nalanda	19.0	8.5	27.1
12. Balia	15.0	6.0	25.0	3. Bhojpur	14.3	6.5	24.0
13. Gorakhpur	22.0	8.1	26.2	4. Buxar	NA	NA	NA
14. Deoria	16.0	20.2	39.6	5. Rohtas	20.6	9.3	33.3
15. Maharajganj	19.2	15.9	49.8	6. Kaimur	NA	NA	NA
16. Basti	21.0	16.5	47.3	7. Gaya	24.1	11.1	38.8
17. Siddharthnagar	17.0	28.8	61.0	8. Jehanabad	30.1	11.5	36.6
18. Mirzapur	26.0	7.0	31.3	9. Aurangabad	18.0	8.1	40.4
19. Sonebhadra	43.0	4.9	38.4	10. Nawadah	12.0	9.8	45.0
North Bihar				11. Munger	18.0	8.2	25.1
1. W. Champaran	15.0	20.6	35.2	12. Jamui	NA	11.5	NA
2. E. Champaran	13.0	18.4	38.9	13. Bhagalpur	13.0	13.9	27.5
3. Saran	12.0	9.8	25.9	14. Banka	NA	10.6	NA
4. Siwan	12.0	17.2	36.9				
5. Gopalganj	13.0	16.6	38.3	Eastern UP	22.0	20.4	48.6
6. Sitamarhi	12.0	19.7	38.2	North Bihar	14.6	21.2	58.7
7. Muzaffarpur	16.0	14.8	33.5	South Bihar	18.4	9.4	54.0
8. Vaishali	20.0	9.4	39.0				
9. Samastipur	18.0	10.1	42.3	Gangetic Plain	18.3	17.0	51.8
10. Darbhanga	15.0	22.1	36.4				
11. Madhubani	13.0	16.7	44.9	India	29.9	12.1	36.7
12. Saharsa	15.0	14.5	37.5				

APPENDIX III (CONTD....)

STATISTICAL PROFILE OF DISTRICTS IN GANGETIC VALLEY

Region / District	Avg. size of holding (ha) (1995)	Extent of irrigation (1995)	Fertiliser consumption (1995)	Region/ District	Avg. size of holding (ha) (1995)	Extent of irrigation (1995)	Fertiliser consumption (1995)
Eastern UP				North Bihar (Contd.)			
1. Bahraich	0.87	23.73	47.77	13. Madhepura	0.89	51.48	70.66
2. Gonda	0.74	36.87	71.49	14. Supaul	NA	NA	NA
3. Faizabad	0.60	56.69	176.16	15. Purnea	0.95	45.10	120.17
4. Sultanpur	0.57	64.04	83.89	16. Katihar	0.85	40.19	68.81
5. Allahabad	0.75	64.14	146.31	17. Kishanganj	NA	21.52	NA
6. Pratapgarh	0.50	75.82	112.44	18. Araria	NA	32.80	NA
7. Varanasi	0.52	74.04	158.28	19. Khagaria	0.94	53.66	104.55
8. Ghazipur	0.80	67.79	133.76	20. Begusarai	0.64	48.75	142.40
9. Jaunpur	0.48	77.77	109.56	South Bihar			
10. Azamgarh	0.57	86.05	91.31	1. Patna	0.65	65.96	105.97
11. Mau	0.67	53.81	120.92	2. Nalanda	0.63	77.72	131.30
12. Balia	0.72	72.77	112.10	3. Bhojpur	0.95	76.56	64.02
13. Gorakhpur	0.68	54.22	150.84	4. Buxar	NA	NA	NA
14. Deoria	0.61	28.88	96.79	5. Rohtas	1.30	84.60	59.91
15. Maharajganj	0.67	46.68	116.18	6. Kaimur	NA	NA	NA
16. Basti	0.66	67.78	140.08	7. Gaya	0.85	77.04	96.28
17. Siddharthnagar	0.74	30.36	57.02	8. Jehanabad	0.61	82.82	65.00
18. Mirzapur	1.05	62.03	67.79	9. Aurangabad	0.98	72.24	78.46
19. Sonebhadra	1.30	21.75	33.01	10. Nawadah	0.70	84.50	136.93
North Bihar				11. Munger	0.79	40.53	48.67
1. W. Champaran	0.65	39.97	77.91	12. Jamui	NA	NA	NA
2. E. Champaran	0.60	46.61	64.44	13. Bhagalpur	0.82	48.03	107.48
3. Saran	0.45	45.92	94.68	14. Banka	NA	NA	NA
4. Siwan	0.68	51.77	37.78				
5. Gopalganj	0.63	45.56	38.63	Eastern UP	0.70	56.6	101.0
6. Sitamarhi	0.40	27.17	39.44	North Bihar	0.65	40.7	70.7
7. Muzaffarpur	0.47	31.18	84.55	South Bihar	0.83	71.0	89.4
8. Vaishali	0.36	39.63	53.58				
9. Samastipur	0.56	41.52	66.06	Gangetic Plain	0.71	55.8	84.7
10. Darbhanga	0.54	37.11	63.91				
11. Madhubani	0.55	36.00	27.60	India	1.57	39.2	88.5
12. Saharsa	0.89	37.48	46.90				

RIVERS OF NORTHERN INDIA



DISTRICTS OF GANGETIC PLAINS



The Asian Development Research Institute (ADRI) Society was established and registered by a group of social scientists in 1991. The motivation for starting yet another Institute in Patna was not merely to expand social science research, but to lend it a distinct development orientation and deliver all research output to its potential users in a demystified form. In this research perspective, the broad objectives of ADRI Society are:

- ✎ to undertake academic research of direct relevance to development efforts made by an individual or a group or the community itself;
- ✎ to broaden the database of research as also of its end use by involving as many classes of persons and institutions as possible;
- ✎ to offer research results in a more innovative, demystified and useworthy form; and finally
- ✎ to restore man to his central position in social research in totality and with full dignity.