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Poverty in India

The Challenge of Uttar Pradesh

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1 Lakh = 100 thousand
1 Crore = 10 million

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ABBREVIATIONS AND ACRONYMS

ANM	Auxiliary Nurse Midwife	NGO	Non-Government Organization
AP	Andhra Pradesh	NSS	National Sample Survey
APPs	Anti-Poverty Programs	NSSO	National Sample Survey Organization
BDO	Block Development Office	OBC	Other Backward Caste
BEP/BPEP	Basic Education Program	O&M	Operation and Maintenance
BJP	Bharatiya Janata Party	PDS	Public Distribution System
BPL	Below Poverty Line	PHC	Primary Health Center
BRI	Bank Rakyat Indonesia	PROBE	Public Report on Basic Education in India
BSP	Bahujan Samaj Party	PSMS	Poverty and Social Monitoring System
CHC	Community Health Centre	PRIs	Panchayati Raj Institutions
CMIE	Centre for Monitoring Indian Economy	R&D	Research and Development
DWCRA	Development of Women and Children in Rural Areas	RBI	Reserve Bank of India
DPEP	District Primary Education Program	RMPs	Rural Medical Practitioners
EAS	Employment Assurance Scheme	SC	Scheduled Caste
EGS	Employment Guarantee Scheme	SEBs	State Electricity Boards
FCI	Food Corporation of India	SEWA	Self-Employed Women's Association
GOI	Government of India	SITRA	Supply of Improved Toolkits to Rural Artisans
GOUP	Government of Uttar Pradesh	SGSY	Swarnjayanti Gram Swarozgar Yojana
GSDP	Gross State Domestic Product	SJSRY	Swarn Jayanti Shahari Swarozgar Yojana
HDR	Human Development Report	SME	Small and Medium Enterprise
HUDCO	Housing and Urban Development Corporation Limited	SSI	Small Scale Industry
HYV	High-Yielding Variety	SSK	Sahbhagi Shikshan Kendra
IAY	Indira Awas Yojana	ST	Scheduled Tribe
ICDS	Integrated Child Development Services	TRYSEM	Training of Rural Youth for Self-Employment
IIPS	International Institute for Population Sciences	TPDS	Targeted Public Distribution System
IRDP	Integrated Rural Development Program	UK	United Kingdom
JGSY	Jawahar Gram Samridhi Yojana	UP	Uttar Pradesh
JRY	Jawahar Rozgar Yojana	UPHSDP	Uttar Pradesh Health Systems Development Project
kWh	Kilo Watt Hour	VRS	Voluntary Retirement Scheme
MP	Madhya Pradesh	WHO	World Health Organisation
NCAER	National Council of Applied Economic Research	WUA	Water-Users Association
NFHS	National Family Health Survey		

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EXECUTIVE SUMMARY

1. Rich in potential – in human and natural resources – Uttar Pradesh (UP) once appeared positioned to be the pace-setter for India's economic and social development. Most of the state lies in the fertile Indo-Gangetic Plain, with high natural soil fertility, abundant rainfall, and surface and groundwater resources. The Western region was the springboard for the Green Revolution in the 1960s and 1970s, which helped UP depart from previously low levels of agricultural growth. Purposeful investments in agricultural research, extension, roads, irrigation, and marketing infrastructure fueled further advances in the 1980s; growth accelerated, accompanied by steady reductions in poverty between the late-1970s and 1980s. Uttar Pradesh, however, now shows less promise. Economic growth faltered in the 1990s and UP has fallen behind India's better performing states. While a recent acceleration in growth suggests that the deterioration in UP's performance has been arrested, many problems remain.
2. At the heart of the state's loss of economic momentum is the loss of effectiveness of the public sector, which has led to an investment climate not supportive of private investment and growth, and to poor performance in the delivery of social and infrastructure services essential for growth and poverty reduction. Reversing this loss of dynamism and the impact of that loss on the state's 60 million inhabitants (out of 175 million¹) who live in poverty is the state's most important challenge. A comprehensive reform program was launched in 1998 to improve the performance of the public sector and initial measures were taken. But the pace of reform has been slow. As a result, UP's poor risk falling further and further behind if reforms to accelerate poverty reduction fail to accelerate. Because Uttar Pradesh is very large – larger than many countries – and very poor, meeting this challenge is important not only for India, but of global significance. An estimated 8 percent of the world's poor live in UP alone.²

The Face of Poverty in Uttar Pradesh

3. The report documents poverty along a number of dimensions – material deprivation, human deprivation, and a range of other deprivations – e.g. lack of voice, vulnerability, destitution, and social exclusion. Progress across all dimensions is essential if UP is to meet the ambitious development goals laid out in the Government of India's Tenth Five Year Plan, as well as the Millennium Development Goals (MDGs).
4. Poverty, measured in terms of *material deprivation*, is high in UP relative to other Indian states, and progress at reducing poverty has been uneven over the past two decades. The vast majority of poor households live in rural areas (80 percent) and poverty historically has been concentrated in the Eastern and Southern regions of the state. Official estimates suggest a decline in poverty between 1983 and 1987-88, with progress diminishing through 1993-94.
5. India's progress at reducing poverty in the latter half of the 1990s has been the subject of intense debate, both in India and worldwide. Official estimates based on the most recent National Sample Survey (NSS 55th Round, 1999-00) herald a dramatic decline in the number of poor people living in the state: poverty is estimated to have fallen by 10 percentage points over 6 years – from 41 percent of the total population in 1993-94 to 31 percent in 1999-00. However, changes in the survey methodology have rendered the 55th Round results incompatible with earlier rounds of the NSS. There is still evidence of considerable progress when an econometric method is used

¹ The statistics used throughout this report deal with Uttar Pradesh as it was before October, 2000, when its Himalayan Region became the separate state of Uttarakhand.

² Based on an international poverty line of \$1.08/person/day in 1993 PPP adjusted prices, 1998 estimates.

to correct the official estimates – according to this method, poverty fell to 34 percent of the population in 1999-00³. This is despite only moderate improvement in average welfare levels; UP has a high concentration of poor people around the poverty line and a little growth can result in a substantial reduction in the number of poor people living in the state. However, many of the erstwhile poor hover just above the poverty line and remain highly vulnerable to shocks that could plunge them back into poverty. An alternative forecasting exercise suggests that poverty in UP fell at roughly half the rate implied by official estimates⁴. Regardless of the method used, there is growing evidence of progress, which is encouraging in light of UP's very slow progress in earlier years.

Trends in Poverty: All-India and Uttar Pradesh

Year	Source	UP Head-Count Ratio (%)			All India Head-Count Ratio (%)		
		Urban	Rural	Overall	Urban	Rural	Overall
1983	NSS 38 th Round	49.8	46.4	47.1	40.8	45.7	44.5
1987-88	NSS 43 rd Round	43.0	41.1	41.5	38.2	39.1	38.9
1993-94	NSS 50 th Round	35.4	42.3	40.9	32.4	37.3	36.0
1999-00	NSS 55 th Round (official)	30.9	31.2	31.1	23.6	27.1	26.1
1999-00	NSS 55 th Round (corrected)	30.4	33.7	33.0	24.7	30.2	28.6

6. **Human deprivation** is an important aspect of poverty in UP. According to the 2001 Population Census, literacy increased from 42 percent in 1991 to 57 percent as of February, 2001, substantial progress but still well below the all-India average of 65 percent. And female literacy in the state, at 43 percent, is also below the all-India average of 54 percent. Although enrollments are rising, the children of the poor are still less likely to be attending school, even at the primary level, than the offspring of the better-off. By the end of the 1990s, only half the girls from the poorest 20 percent of the population were enrolled, as compared to 80-90 percent for girls from the wealthiest households.

7. The people of Uttar Pradesh suffer from a high burden of disease. Maternal mortality is high at 707 deaths per 100,000 live births, compared to 408 in India as a whole. Children are particularly vulnerable: they are frequently malnourished – over half the children under three years of age are significantly underweight – and less shielded against childhood diseases. Three out of ten youngsters have never been immunized, and the infant mortality rate in UP (85 per 1000 live births) is among the highest in India. Infant mortality is particularly high in households suffering from high levels of material deprivation.

8. Just as the reality of poverty goes beyond material deprivation, it also encompasses more than shortcomings in human development. Poor men and women -- in Uttar Pradesh as elsewhere -- are highly vulnerable. Often voiceless and powerless, they lack access to and influence over the institutions of the state. A small but important subset of poor people are truly destitute, and the fear of joining their ranks, from which there is often no escape, colors the thinking and actions of the poor and non-poor alike. Social identity matters as well – lower caste individuals and women face additional barriers that limit social and economic mobility.

³ Deaton, A. 'Adjusted Indian Poverty Estimates for 1999-2000', Paper presented at the Planning Commission/World Bank *Workshop on Poverty Measurement, Monitoring, and Evaluation*, January 11/12th, 2001, New Delhi.

⁴ Datt, G., V. Kozel, and M. Ravallion. 'A Model-based Approach to Projections of Poverty in India', Paper presented at the Planning Commission/World Bank *Workshop on Poverty Measurement, Monitoring, and Evaluation*, January 11/12th, 2001, New Delhi.

The Causes: Poverty of Resources, Access, and Relationships

9. Poverty is the result of low levels of assets, combined with low and uncertain returns. In combating poverty, the state will need to build purposefully on all its assets, those in public hands as well as those in the private sector, and not least the real and potential assets of the poor themselves. The labor of the poor is concentrated in low-paid casual daily wage work; most own little or no land or productive assets. Poor people lack marketable skills and, in most cases, literacy; they suffer disproportionately from poor health and disability. Poverty is caused by a ***scarcity of private assets***. Poor men and women are ill-equipped to take advantage of the opportunities provided by growth in the economy. In addition, public services often by-pass them. Infrastructure development, including provision for drinking and irrigation water, sanitation, electricity and public transport, is very low in UP in comparison with many Indian states, and access is most limited in backward regions, where many poor people live. Moreover, social services and anti-poverty programs do not perform effectively – in UP there is also ***poverty of access to public goods and services***. Neither do the poor participate extensively in networks of informal assistance and mutual support – they suffer from ***poverty of social relations***. For those with extensive social capital, (usually the better-off) these networks can open opportunities for investment or employment, and they can protect households against the economic shocks that may plunge the most vulnerable into destitution.

10. In addition to these causes, deprivation linked to gender and caste is a deeply rooted reality in the UP countryside, and any comprehensive effort to reduce poverty must confront that reality and its consequences. The realities are visible in the segregated hamlets where many of the lower castes live on the fringes of rural villages; often distant from community services – schools, health centers, public handpumps, and shops that distribute subsidized grains – in principle meant to assist poor families. The realities are as invisible as the girls who never enroll in school. Social inequities are reflected in inequities in the distribution of productive assets, such as land and education. Social inequities are also reflected in inequitable returns to assets: lower-caste households not only own less; they also experience lower returns to the minimal stocks they do possess, including human capital. Deprivations linked to caste and gender create tensions in the society, and these tensions are exacerbated by low growth and limited opportunities.

11. The poor in UP are highly heterogeneous, ranging from the truly destitute who have nothing and at best manage to survive, to households that are building assets and accumulating small surpluses, well on their way to climbing out of poverty. Many poor people are vulnerable; they face the threat of further impoverishment and a slow slide into destitution. Differing forces ***limit economic opportunities among poor households, and the differences impact on future economic prospects as well as have direct bearing on policy and program design.***

The Policy Challenges – Beginning with the Essential Role of the State

12. A government that works for poor men and women is a government that works for all citizens, rich and poor alike. The first and most fundamental challenge for reducing poverty in Uttar Pradesh is to improve the quality and effectiveness of the public sector.

13. The reasons behind UP's progressive ***deterioration in governance*** are fourfold: first, the administration has become increasingly politicized, which has eroded the stability of tenure and undercut managerial authority; second, administrative fragmentation has led to a proliferation of senior positions and undermined coordination and accountability in administration as well as policy-making; third, a related expansion in the size of the civil service, combined with weak

revenue generation, placed a squeeze on the capital budget as well as spending on operations and maintenance; and fourth, poor expenditure management practices have undermined the efficacy of public spending for combating poverty in the state. UP's continuing political instability, dating back to the mid-1980s, has contributed to the growing politicization and undermined the effectiveness of the administration.

14. The burden of poor governance falls directly and indirectly on poor people. They are more vulnerable to predatory behavior on the part of government officials, particularly the police. And resources intended for the poor are often diverted at the local level for the use of the wealthy and politically well-connected. One result is that poor households frequently lack access to basic services, and those that reach them are of inferior quality. Indirect impacts are equally pernicious: poor men and women are confined to the sidelines in the state's political life; while they carry heavy weights in their daily lives, they carry little or no weight in the offices, agencies and assemblies where, without their active or informed consent, their lives are often shaped. Many live in isolation and lack basic information about their rights and opportunities. Moreover, they lack the resources to vote with their feet and use private providers when unable to get the services to which they are entitled from the public sector.

15. The way forward is clear. UP needs to find better ways to empower its poorest citizens and bring them into decision-making at all levels. In addition to ensuring that the recently created Panchayati Raj Institutions (PRIs) include poor people fully as decision makers, UP needs to transform its public sector so that the conduct of the police, the courts, and the bureaucracy in general is transparent and accountable to citizens at all levels. In addition, administrative and staffing reforms are needed within the civil service – to reduce fragmentation e.g. by streamlining and combining departments and sub-departments with similar functions, and to improve overall productivity and staffing and skills mix. Complementary reforms are needed at the sectoral level to improve regulation and service delivery in the areas that matter most for poor people – health, education, drinking water, and sanitation. As well, the efficiency of public spending must be improved, both by strengthening core expenditure management processes and developing ways to ensure that the state's public expenditure program is pro-poor. Budgets should be linked to performance, performance measured in terms of discernable improvements in the lives of poor men and women, not just the rich and powerful.

Broadening and Accelerating Economic Growth

16. A second challenge is to accelerate growth, the foundation stone of anti-poverty policies in Uttar Pradesh as well as worldwide. A dynamic economy, growing strongly, is a powerful force for creating new and better employment opportunities for poor people, enabling empowerment, and reducing vulnerability. Poverty in the state has fallen during periods of rapid growth and stagnated in periods where growth has been slow.

17. Achieving faster growth will require substantial ***improvements in the investment climate*** for private sector led growth. In a recent survey of CEOs of major firms in India, the investment climate in UP was ranked 16th (just ahead of Bihar) out of a list of 17 major Indian states. Inadequate infrastructure, a poorly skilled domestic work-force, weak governance, and a rigid regulatory environment have all combined to discourage the flow of new investment into many regions of Uttar Pradesh. The state has moved some way in recent years towards removing numerous regulations that curbed economic activity and impeded production and investment, liberalizing land purchase for industrial units, and introducing a single-window system for rapid clearances. Government orders have restricted discretionary inspections and streamlined the role of inspectors, reducing harassment of industrial and trade establishments. While many good laws

and measures have been passed or enacted, the main challenge ahead is to ensure further deregulation, and effective implementation in practice.

18. Where poverty is endemic in the countryside, as in Uttar Pradesh, *accelerated growth in rural areas* ranks as an important remedy. In UP's still heavily agrarian economy (agriculture accounts for 42 percent of Gross State Domestic Product (GSDP) and 75 percent of total employment), a healthy agriculture sector is needed to power rural progress. Growth in agriculture was uneven through the 1990s, averaging less than 2 percent per annum. The sector has suffered not just from policy distortions and from pervasive controls on commodity marketing, policies that had pernicious effects throughout India, but also from a steady decline in levels and composition of investment in agriculture. As UP fiscal deficits rose through the latter half of the 1990s, not only did productive public spending for rural growth slow; but many of the remaining outlays took the form of inefficient subsidies for power, water, and fertilizer, in particular. Investments in roads and irrigation and in maintaining vital infrastructure suffered.

19. While many of today's poor remain heavily dependent on the land, the rural non-farm sector has an important and growing role in providing economic opportunities for poor men and women. These views came out strongly in field consultations and participatory studies. Non-agricultural incomes are highly valued by poor households because they increase incomes at the margin as well as minimize risk through diversification. Moreover, an expanding non-farm sector can help to reduce poverty even for those poor not directly employed off-farm by tightening village labor markets and raising wage rates for agriculture laborers.

20. There are three key areas where actions are needed to accelerate growth and reduce poverty in rural areas. First, there is a pressing need to remove bottlenecks in infrastructure and the supply of goods and services key to production. Critically needed is increased public support for research and extension, marketing activities, and infrastructure (particularly irrigation and roads). Given the current fiscal crisis, Government should focus on improving the quality and efficiency of infrastructure services through three channels: reallocation of expenditures (e.g. by reducing subsidies, particularly subsidies that accrue to the better off rather than the poor, improving maintenance of roads and the canal irrigation system, and better research and development); enhanced resource generation (e.g. through user fees for public irrigation, higher power tariffs, particularly in the agriculture sector, more effective metering, billing and collection of power tariffs, and better mobilization of private sector investment for marketing infrastructure); and institutional reforms to support better and more equitable management and maintenance of local public assets (e.g. water users associations, transferring the maintenance of village roads to PRIs). Second, actions are also needed to improve the regulatory environment, by lifting controls on marketing of agriculture commodities and simplifying rules, regulations and licensing laws that work as obstacles to higher incomes for poor people. Although large scale land reforms have proven difficult in UP, reforms in the structure and regulation of the land market are needed to improve productivity and broaden the impact of agriculture growth. Third, a breakthrough is needed to ensure an adequate flow of credit to poor farmers and micro-entrepreneurs. As long as provision of credit to all sectors suffers due to the weak commercial orientation of the public banks that dominate India's financial system, the poor are particularly vulnerable, both directly and indirectly. High transaction costs along with the absence of suitable collateral means that poor people in UP are often unable to access credit from institutional sources. Purely state-led efforts to provide financial services to the poor have not been successful, and new approaches should be sought.

21. Correcting *gender bias* in its multiple social, economic, and political forms can unleash another strong force for economic growth – the energy of women as farmers and as small-scale,

rural entrepreneurs. On the economic front, the two most immediate areas for action concern legal rights and credit. Ensuring women's right to possess productive assets will enhance their security and economic potential. To do so, however, will require reversing both customary practice and the legislative framework that still function in many ways to deny women equal rights to assets, including land. Even where legal claims exist, women may find them unenforceable. In addition, women, particularly poor women from lower castes, are subject to societal as well as domestic violence, and widows and widows and deserted women are particularly subject to various forms of discrimination not only in access to jobs but also in accessing basic services and safety nets.

Improving Quality and Access to Services

22. The quality of what government does or fails to do at the local level matters a great deal to the lives of poor men and women. The final challenge is to expand their human capabilities, through widening access to essential services – in particular education, health, social welfare programs and safety nets. The poverty-reducing impacts of reform-led growth are highly contingent on actions taken now to help poor people acquire the skills and education they need, provide better access to public goods and services, and remove barriers to using them. Opportunities also carry risks; measures must be in place to reduce risk and protect the vulnerable. The poor in UP have limited access to decent quality education and health services provided through the public sector; they are also ill-served by private providers. And there are pervasive failures in the outreach and impact of many of India's Anti-Poverty Programs (APPs) and safety nets.

23. Uttar Pradesh spends little on elementary *education*: spending rose from only 1.7 percent of GSDP in the early 1990s to 1.8 percent by the end of the decade. Better performing states spend more on a per-student basis: Himachal Pradesh spends almost twice as much as UP, Kerala spends half again as much, and Karnataka and Rajasthan spend 25 percent more on a per-student basis.

24. Of the urgent policy responses needed to upgrade educational performance in UP, the first is the need to spend more and spend better to achieve India's goal of education for all. Enrollments and literacy improved in the 1990s but there are improvements in physical, economic and social access for children from poor families and the socially excluded, many of whom live either in rural hamlets far from centrally located facilities or in unrecognized urban slums where no schools exist. Finally, while expanding access may bring children into school initially, policy-makers have to improve the quality of teaching and relevance of what is taught so that poor boys and girls not only enter school but also stay to learn the skills they need to compete successfully in India's rapidly changing job market. Poor parents must see – as many do not – that expected returns to education will be high enough to offset the opportunity cost of the child's lost labor (at home as well as in the market) as well as direct costs of schooling. Poor families in particular are less likely to be able to afford the books, school supplies and uniforms required for school attendance, and the public sector provides little in the way of financial support. Evidence from other countries has shown that scholarship programs (e.g. directed at girls and ethnic minorities) can be effective at raising school attendance. Addressing these many barriers also may help reduce the incidence of child labor, a serious problem in UP that the Government has sought to address with limited success.

25. Despite extensive coverage in the state of the District Primary Education Program (DPEP), and evidence that it has helped to increase public school enrollments and retention, Uttar Pradesh still has the highest rate of private school enrollments in India: one-quarter of all rural

children enrolled at the primary level attend private (recognized and unrecognized) schools, as do 70 percent of urban children. And there is emerging evidence that private school enrollments are on the rise, even among poor households, reflecting lack of access and poor quality on the part of public providers. While the facts remain to be firmly established, they nonetheless raise concerns about the efficacy of the public sector in meeting the education needs of poor children.

26. As with education, access to *public health services* and the quality of these services for the poor are constrained by inadequate resources inefficiently spent. The proportion of public resources UP currently commits to health is low by both Indian and international standards. Moreover, spending in the health sector tends to be regressive, with the exception of some services, such as immunizations and non-hospital outpatient care, that are pro-poor. Out of every 100 rupees spent in the public sector on curative health care services in UP, the poorest 20 percent of the population receive 10 rupees in health services while the richest 20 percent receive 41 rupees⁵.

27. Public facilities for primary health care are rarely utilized by poor people. One reason for this is the lack of adequate supplies of medicines and other medical necessities. Staff shortages, moreover, commonly result in health centers and similar posts being unattended. Auxiliary Nurse Midwives (ANMs), the health workers with the greatest outreach in the community, are seriously overburdened and lack promised back-up and support. Not only has funding of personnel costs been too low, but added resources are required to improve the capabilities and performance of public health practitioners now at work.

28. Like the education sector, many poor households use costly – and often ill-trained and ineffective – private health care providers. And like the education sector, this finding raises serious concerns about the role and efficacy of the public sector in providing basic services for UP's poor people

29. Reforms are needed to rejuvenate UP's health sector to better deliver core functions; make better use of the private sector and improve standards of care; use public information more effectively to promote disease prevention and develop more informed health consumers; and focus the overall system to better serve the needs of the poorest and most vulnerable. Efforts are underway in the state to develop and implement a strategy to achieve these much needed reforms; early results are encouraging.

30. In order for safety net programs and pro-poor policies to be effective in protecting and enhancing livelihoods, they must be appropriately designed, easily accessible to those who need them, provide a reliable level of service, and make efficient use of scarce resources. Many of India's *anti-poverty programs and social welfare schemes* do not meet those standards. In addition to program-specific problems, the schemes have been weakened by a lack of political commitment as well as limited transparency and accountability. Accountability is further compromised by a lack of coordination between the many agencies involved in administering these programs. Targeting is poor, and the neediest are frequently bypassed. These programs are particularly ineffective in UP's least developed regions, where poverty is high and needs are greatest.

⁵ National Family Health Survey (NFHS-1), 1992-93

The Way Forward

31. Accelerating growth, putting the delivery of social services to poor men and women on an efficient basis, empowering them as citizens and opening the public sector to public scrutiny so that both corruption and nonfeasance can be identified and redressed – all these are formidable challenges. They would strain the resources and will of many developed societies. But they are not utopian goals. They are the prerequisites for steady progress, not just against poverty but toward widely and equitably shared well-being. The Government will have to harness its efforts and will to overcome all the separate but interlocking challenges enumerated above. It has an essential – and irreplaceable – role in achieving India’s longstanding goal of poverty eradication. The newly-elected Government now has an opportunity to accelerate growth and empower the poorest amongst its citizens through higher incomes, better education and health, and a stronger voice in the decisions that affect their lives.

Chapter 1

POVERTY IN UTTAR PRADESH – THE CONTEXT

A. An Introduction

1.1 Rich in potential – in human and natural assets – Uttar Pradesh (UP) once appeared to be a pace-setter for the country's economic and social development. Most of the state's farm land is in the well-watered and naturally fertile Indo-Gangetic Plain, and the Western Region's tradition of raising wheat and sugarcane made it a strong platform for the Green Revolution in the 1960s and 1970s, which helped UP depart from previously low levels of agricultural growth. In the next decade, the Eastern and Central Regions of the state registered strong advances, spurred by purposeful investments in research, extension, irrigation and marketing infrastructure. As a result, in the 1970s, economic growth in most sectors in Uttar Pradesh was higher than that in the rest of India. Since then, however, economic growth started to fall behind that of India, particularly in the 1990s—as the state failed to seize the opportunities created by the liberalization of the economy started in 1991.

Table 1.1 Growth Trends in UP and All-India

	1960-70	1971-80	1981-85	1986-90	1991-93	1993-98
Gross Domestic Product:						
Uttar Pradesh	2.5	3.0	4.0	6.0	1.9	4.0
All-India	3.7	3.1	5.0	6.3	4.1	6.7
Agriculture and Allied Services:						
Uttar Pradesh	1.6	1.9	2.1	3.7	1.7	1.8
All-India	2.3	1.5	3.1	3.9	2.4	3.4
Industry:						
Uttar Pradesh	6.1	5.4	7.4	8.6	1.4	4.8
All-India	5.4	4.0	6.4	8.2	3.0	6.6
Manufacturing:						
Uttar Pradesh	5.1	5.0	9.8	9.2	1.6	3.4
All-India	5.2	4.0	7.0	8.2	2.9	7.5
Services, etc.:						
Uttar Pradesh	3.0	3.6	5.1	7.4	2.5	5.5
All-India	4.6	4.3	6.1	7.0	6.0	8.7

Notes: 1980 indicates 1980-81, etc. Since GSDP data are not available prior to 1980, we have used NSDP as a proxy for the period 1960-80.

Source: Central Statistical Organization.

1.2 Reversing this loss of dynamism and the impact of that loss on the state's 60 million inhabitants (out of 175 million¹) who live in poverty is UP's most important challenge. Because of UP's size and level of poverty, meeting this challenge is of significance not only for UP but also for India, and indeed the world. An estimated 8 percent of the world's poor live in UP alone.² This chapter reviews the nature and evolution of poverty in UP. It highlights the fact that while poverty in UP is not substantively different than poverty in the rest of India, it is however worse along many dimensions. After examining how UP's poverty reduction strategy compares with that of India, the chapter reviews definitional and measurement issues related to poverty. It also examines what the data reveal, and what they don't.

¹ The statistics used throughout this paper deal with Uttar Pradesh as it was before October, 2000, when its Himalayan Region became the separate state of Uttaranchal.

² Based on an international poverty line of \$1.08/person/day in 1993 PPP adjusted prices.

Growth has been slower in UP than the all-India average; nonetheless important progress appears to have been made in combating poverty in recent years. While these gains are noteworthy, it is important to keep in mind that there are substantial numbers of households clustered in and around the poverty line and relatively small improvements in their incomes may have a significant impact on the measured incidence of poverty. This also implies that many households still have welfare levels very near the poverty cut-off and remain vulnerable to short-term shocks that frequently plunge them back into poverty.

1.3 A profile of the poor in UP is presented in Chapter 2, which analyzes poverty along three critical dimensions – poverty of private resources, poverty of access to public goods and services, and poverty of social relationships. The chapter also discusses the role played by social identity – and in particular, gender and caste – in limiting or even barring opportunities to escape poverty. It also looks at child labor as a manifestation of the vulnerability of children to the economic and social conditions in which they have to grow and develop.

1.4 At the heart of UP's loss of economic momentum has been the loss of effectiveness of the state administration which has both led to an investment climate not supportive of private investment and growth, and to a poor performance in the delivery of social and infrastructure services essential for growth and poverty reduction. Chapter 3 reviews the reasons behind the loss of effectiveness of the state administration in carrying out its development functions. It starts with a review of the unstable nature of the state politics in recent decades, possible sociological driving forces, and how these may have contributed to weakening the foundations of the state administration and eroding its effectiveness in carrying out essential functions. Modernizing UP's state administration, reducing its politicization, making it more responsive and accountable to the population are essential for the state to restore its economic dynamism and reduce poverty—and the report examines options as to how this can be best achieved.

1.5 Chapter 4 then turns to examine the economic environment in more detail. It examines the policies and constraints to UP's economic growth—so vital for creating opportunities for the poor, enabling their empowerment, and reducing their vulnerability. The chapter briefly compares the investment climate in UP with that of other states in India and explores reasons why UP ranks so low in India—mostly because serious infrastructure shortcomings and counterproductive regulations have reduced returns on private investment while poor governance has raised variability and uncertainty on such returns. It also examines factors behind the slowdown in growth in the agriculture sector, given its continuing important role in providing employment and income for the rural poor.

1.6 Chapter 5 ends the report by examining how well public services reach the poor. The quality of what government does or fails to do at the local level matters a great deal to the lives of the poor. In UP, the poor have limited access to good quality health and education services provided through the public sector; they are also ill-served by private providers. The chapter also documents pervasive failures in the outreach and impact of India's anti-poverty programs and safety nets. The chapter highlights various options for improving the delivery of basic services, building on the review of state administration in Chapter 3.

B. India's and UP's Poverty Reduction Strategies.

India's Strategy for Poverty Reduction: Growth with Social Justice and Equity

1.7 Poverty reduction has been a key concern of India's founding fathers, and poverty reduction has been addressed in successive five year plans since just after independence. India's current strategy for

poverty reduction is articulated in considerable detail in the Ninth Five Year Plan, which covers the period 1997 to 2002, and in the Mid-Term Appraisal completed in October 2000.

1.8 The overriding objective of India's poverty reduction strategy is ***growth with social justice and equity***. While projecting public and private investment requirements, the Plan gives greater priority, in a liberalized environment, to "*planning for policy*" and suggesting the major directions for policy reforms and interventions. Issues related to governance and institutions are also a theme of the strategy, which envisages greater local participation to improve the effectiveness of delivery mechanisms, and which emphasize the empowerment of women, the poor, and local communities. On the growth front, the Plan's 15-year long-term perspective targets an average annual growth rate of 7.4%, starting with 6.5% for the Ninth Plan period and increasing in successive Plan periods, with a view to reducing poverty to below 10% of the population over this period.

1.9 As articulated in the Ninth Plan, India's poverty reduction strategy envisages a two-pronged approach: (i) promoting faster growth by improving the investment climate and (ii) increasing the effectiveness of pro-poor interventions. Both require extensive reform at the state level, and the plan discusses these in considerable detail.

Investment Climate

1.10 **Fiscal sustainability.** The Plan documents note the precariousness of the current fiscal situation, and recommend corrective measures at both the central and state levels. Tax reforms focusing on base broadening and improving compliance are planned in order to halt the decline in the tax-to-GDP ratio. Tighter expenditure controls are also important, especially in relation to the wage bill. Subsidies, both explicit subsidies at the central level, such as for food and fertilizers, and implicit at the state level, such as for power, higher education and irrigation, will need to be cut. At the same time, there is recognition of the need to increase the effectiveness of public spending and also recognition of how poor governance erodes the effectiveness of spending.

1.11 **Governance.** Improving the quality of governance is emerging as a key element of India's poverty reduction strategy. In his address to the National Development Council meeting held on February 19, 1999, the Prime Minister stated: "*People often perceive the bureaucracy as an agent of exploitation rather than a provider of service. Corruption has become a low risk and high reward activity. Frequent and arbitrary transfers (of government officials) combined with limited tenures are harming the work ethics and lowering the morale of honest officers. While expecting discipline and diligence from the administration, the political executive should self-critically review its own performance. Unless we do this, we cannot regain credibility in the eyes of the people who have elected us to serve them.*"

1.12 As highlighted in the Plan, the bureaucracy is becoming increasingly subject to political interference, a phenomenon most manifest in the shrinking average tenure attached to many government positions, especially at the state level. The judicial system is not functioning well: currently an estimated 25 million cases are pending in various courts. Tackling these, and related problems, will require reforms dealing with the civil service, the judicial system, anti-corruption strategies, etc., and the active involvement of civil society. The Mid-Term Appraisal outlines a comprehensive strategy along these lines and highlights that "*administrative and legal reforms should be an integral part of the reform agenda.*"

1.13 **Domestic and external liberalization.** Growth in India benefited greatly from the reduction of industrial investment licensing regulations. However, the business environment continues to be unpredictable, discretionary and burdensome. The government strategy recognizes the importance of further domestic liberalization, including: (i) immediate abolition of small-scale reservations in critical

export areas, and phasing-out of reservations in other areas; (ii) deregulation in labor policy, accompanied by introduction of unemployment insurance; (iii) completion of the dismantling of administrative prices (e.g., in petroleum products); and (iv) reduction of clearance delays and harassment of businesses by excessive inspection requirements. To continue the liberalization of the external regime initiated in 1991, the strategy calls for a time frame to be laid down for a phased reduction of tariffs from their current average level of 30 percent to an average of 10 percent.

1.14 Agricultural reforms. Attacking rural poverty requires deregulation and more liberal rural policies as well as an expansion of rural infrastructure to boost agricultural growth. The Ninth Plan thus sets out a multi-dimensional reform agenda for improving incentives to production, rationalizing subsidies and promoting investments, besides extending protective cover to the poor. A review and elimination of myriad controls in the domestic market for agricultural produce is presented as an urgent necessity. Other rural development reforms identified pertain to rural credit, land reforms, and the development of rain-fed areas and exploitation of ground water potential.

1.15 Infrastructure bottlenecks. The Plan recognizes that infrastructure bottlenecks have become a major constraint on growth. Although public investment in infrastructure will remain central, mobilization of private investment is also important. The Plan recognizes that private investment has been deterred by the slow pace of policy reform, the high degree of uncertainty over the policy and regulatory frameworks, the unreliability of the legal system to enforce contracts, and exposure to political interference and corruption. Key sectoral issues include the following:

- The **transport sector** will continue to rely largely on public investment. Currently, it is inefficient and under-funded, resulting in growing congestion and longer delays, all of which push up costs for Indian producers. Many rural habitations are not connected to the main road network. The government is moving towards improving road sector management, creating various road funds at the state and central levels financed by road users through diesel/petrol cess, and making tangible progress on the proposed “quadrilateral” national highway linking the four largest cities in the country.
- **Urban infrastructure.** Despite the relative deceleration in India’s rate of urbanization over the last 20 years, the gap between demand and supply of basic urban services has widened as a result of ineffective management, inadequate funding, and poor project development. Urban water has good potential for private sector participation, but the basic regulatory framework and commercial orientation is yet to develop.
- **Power sector reform.** According to the Government’s strategy, *“reforms in the energy sector should start with the restructuring of State Electricity Boards (SEBs). Unbundling the SEBs and separating generation, transmission and distribution into separate corporations will make it possible to monitor efficiency levels in each activity and also to create appropriate incentives for efficiency in each area. Unbundling will also make it easier to allow private sector operators in each area in a suitable manner.”*

More Effective Pro-Poor Interventions

1.16 India’s poverty reduction strategy is based on the premise that “economic growth and employment opportunities in themselves may not be sufficient to improve the living conditions of the poor. They need to be accompanied by measures which enhance the social and physical conditions of existence.” The Ninth Plan recognizes that, *“despite considerable efforts, provision of social infrastructure and services remain inadequate...Primary education, primary health care, safe drinking water, nutrition and sanitation require heavy investment which has to be provided out of public funds...Furthermore, recognizing the localized nature of these essential services, it is desirable that*

control over operation and maintenance of the facilities should be in the hands of peoples' institutions and local associations."

1.17 **Education.** India's poverty reduction strategy looks at education as *"the most vital and crucial investment in human development,"* with elementary education receiving the highest priority. The Ninth Plan seeks to achieve universal elementary education (age 6-14) through several measures:

- *Amendment of the Constitution to make elementary education a fundamental right.*
- *Decentralization of planning, supervision, and management of education through local bodies.*
- *Social mobilization of local communities for adult literacy campaigns and for promotion of primary education.*
- *Stronger partnership with NGOs and voluntary organizations.*
- *Advocacy and media campaigns.*
- *Provision of opportunities for non-formal and alternative education for out of school children in the most backward areas and for unreached segments of the population.*

1.18 The Cabinet has recently sanctioned the *Sarva Shiksha Abhiyan* (Education for All), a centrally sponsored scheme within which all existing government programs supporting elementary education will be placed and which will provide substantial additional financial support to the states.

1.19 **Health.** In the Ninth Plan, the focus is on integrating communicable, non-communicable and nutrition related health services, through strengthening and better utilization of existing health care institutions. The Plan aims to minimize the existing disparities between states and ensure that reforms do not result in deterioration of health status in poorer segments of the population. Special attention is given to gearing up to combat the new threat of HIV/AIDS. The National Population Policy 2000 affirms the government's commitment to gender-sensitive policies with a holistic approach to population and development through decentralized planning and program implementation. It focuses on health communication and behavior change, convergence of service delivery at the village level, meeting the unmet needs for family welfare services, ensuring coverage of the under-served population in urban slums and tribal communities, and increasing collaboration with the private sector and NGOs.

1.20 **More effective anti-poverty programs.** India spends heavily on anti-poverty programs in rural areas, but many question the efficiency and efficacy of these expenditures and their vulnerability to corruption and rent seeking. The Mid-Term Appraisal notes that the *"role of anti-poverty programs to supplement the growth effort is not only valid in the post-reform period but becomes even greater to protect the rural poor against adverse consequences of economic reforms."* However, the government recognizes the need to restructure such programs for effective implementation and for enhancing the productivity of the beneficiaries in rural areas. *"A major weakness in the implementation of poverty alleviation programs has been the lack of participation by the people for whom the programs are meant. Strong local governance such as expected from Panchayati Raj Institutions – responsive to the needs of beneficiaries, encouraging mobilization of the rural poor, and open to social audit – promises better delivery of poverty alleviation programs."*

The Role of the States in Poverty Reduction and Reforms

1.21 The Plan also reflects the increasing complementary responsibility of the states in implementing India's poverty reduction strategy. India's Constitution grants considerable power to the states in terms of regulatory oversight, tax and expenditure assignments, provision of infrastructure, and provision of social services. Before the 1990s, states' discretion in policy making was limited by the dominance of national political parties and central planning. The changes in the 1990s have made the quality of a state's own economic and social management a much more important determinant of its growth and social

performance. The Ninth Plan explicitly recognizes the importance of state-level reform and the need for individual states to evolve efficient and socially desirable policies.

1.22 A number of states have formulated explicit poverty reduction strategies, sometimes in the context of preparing state-level Human Development Reports (HDRs). In the case of AP, for example, a the government has drafted a comprehensive vision document that articulates the development agenda for the state. The report took several years to prepare and drew on extensive consultations in all districts of the state. More recently, 16 policy papers have been tabled for discussion at the State Assembly which propose policy and institutional changes to improve the investment climate, increase economic growth, improve the effectiveness of public spending, and ensure the poor's access to essential services – health, education, and drinking water. Karnataka is in the midst of a similar process also based on extensive consultation and debate across a range of stakeholders. This work builds on analysis, consultations, and strategy formulation undertaken for the state's HDR, which was a comprehensive and forward-looking document.

1.23 Reforms needed at the state level to advance growth and poverty reduction are comprehensive. They entail fiscal reform – most states are facing serious fiscal problems that impair essential development spending; reform of the public sector – generally overextended and characterized by weak public management and institutions that impair the effectiveness of government and delivery of services; and structural reform across a range of sectors, including power, irrigation, agriculture, and roads. While many of needed reform measures can be initiated by state governments, other key reforms needed to improve the investment climate – e.g. banking reforms, or measures to improve the national highways or other national infrastructure – must be initiated by Central Government. More recent initiatives to devolve certain responsibilities to lower tiers of government have widened the base of institutional actors involved in India's reform agenda. An important development over the nineties is the devolution of responsibilities to the third-tier or local governments. In the wake of the 73rd and 74th Amendments, adopted in 1993, many states have developed ambitious plans for decentralization that are at various stages of implementation. The Plan endorses the move towards decentralization, and notes that both local governments and user groups have a role to play in enhancing beneficiary participation and control -- with the ultimate objective of increasing the efficiency, transparency and accountability of public spending. However, with very few exceptions, decentralization is at an early stage in India.

1.24 In short, many states face a daunting agenda of high priority reforms, not least because they represent a departure from India's populist policies of earlier years and are politically difficult to implement – sectoral reforms may entail sharp reductions in subsidies and/or higher user fees (e.g. for power, irrigation, public transportation) as well as radical changes in institutions (e.g., privatization, reform of large government departments such as public works, forestry, and irrigation).

Addressing the Challenges – UP's Strategy for Poverty Reduction

1.25 Uttar Pradesh articulates a strategy for poverty reduction in its own Ninth Five Year Plan³, covering the period 1997-2002. The Plan highlights the challenges faced by the state and the slow rate of progress in recent decade, particularly during the period of the Eighth Five Year Plan, where aggregate growth in the state fell well short of the targeted rate of 6.0 percent. Progress at reducing poverty also was acknowledged to be slow.

1.26 Consistent with the strategy outlined in GOI's Plan, UP's strategy calls for ***faster growth with more equitable distribution of income***, while recognizing an essential role for programs that promote

³ The strategy is described in Chapter 4 "Poverty and Unemployment", Government of Uttar Pradesh, *Ninth Five Year Plan 1997-2002, and Annual Plan, 1997-98*. Vol 1.

self-employment as well as short-term wage employment. The Plan highlights the need to expand and better target UP's range of employment programs during the period of the Ninth Plan, and notes the importance of improving productivity in the agriculture sector, with a more rapid shift out of low-value to higher-value labor intensive crops, and to non-farm activities like milk production, poultry, egg production, and pisciculture. It raises concerns about the slow rate of improvement in food grain production, increasing rates of under and unemployment, slow improvements in literacy as compared to better performing states in the 1970s and 1980s, high rates of population growth, and increasing numbers of workers in agriculture despite a falling contribution of the sector to output levels in the state.

1.27 UP has the largest population of Scheduled Castes in India, and the state's Ninth Plan looks at the gaps between Scheduled Caste and Schedule Tribe (SC/ST) households and majority households along a number of dimensions, viz. representation in government services, literacy levels, land ownership, poverty levels, occupational patterns, and violence and atrocities. Security is a recurring theme: the Plan notes that *"their (SC/ST) social development causes inequilibrium and consequently resentment in other sections of the society. It leads to committing atrocities against them... which frequently occur causing huge loss to their life and property."* The document reaffirms UP's commitment to the *"protection and promotion of the interests of weaker sections of society, especially Scheduled Castes."*

1.28 Specific objectives cited in the Ninth Plan for improving the welfare of SC/STs include:

- *Substantial reduction in poverty and unemployment;*
- *Creation of productive assets in favor of SC/STs to sustain the growth likely to accrue through development efforts;*
- *Diversification of the economy;*
- *Human resource development by providing educational and health services adequately;*
- *Provision of physical and financial security against exploitation.*

1.29 The program of Basic Minimum Services, launched in 1996-97, also forms an important element of UP's strategy for combating poverty in the state. The Basic Minimum Services program grew out of India's Minimum Needs Program (MNP), initially launched under the Fifth Five Year Plan, but has a sharper focus on rural areas and poorer sections of the society. Approximately 60 percent of outlays are provided through the state's plan budget, with the remaining 40 percent as central share directed towards centrally sponsored schemes that contribute to achieving seven Basic Minimum Services norms:

- *Full coverage of provision of safe drinking water in rural and urban areas;*
- *Full coverage of primary health service facilities in rural and urban areas;*
- *Universalization of primary education;*
- *Provision of public housing assistance to all shelterless poor families;*
- *Extension of mid-day meals program to rural blocks and urban slums and disadvantaged sections;*
- *Road connections to all unconnected villages and hamlets;*
- *Streamline operation of the Public Distribution System (PDS) to focus more on the poor.*

1.30 While UP's strategy for reducing poverty is rightly focused on the programs that could improve the living conditions of the poor, it does not explore the structural reforms that would enable the state to attract private investment in critical areas, increase growth, and expand economic opportunities for the poor. Nor does it articulate the reforms needed to ensure that the proposed expansion in government programs is fiscally feasible, effective in its use of public resources, and reaches the poor – all three are formidable challenges that need to be urgently addressed. UP's strategy also needs to provide greater clarity on the respective responsibilities of various tiers of government – Center, State, and lower tiers under the Panchayati Raj Institutions (PRIs) – both in terms of design and implementation. As well, the

strategy should acknowledge the importance of actors outside the public sector – e.g. civil society organizations, private sector firms, and service providers – in combating poverty in the state. While a start was made in formulating such a strategy in 1999-2000, with a number of policy papers prepared and debated in the State Assembly, the momentum slowed to some extent in the latter half of 2000.

C. Data Sources and Data Concerns

1.31 This report makes use of a wide range of information, including data from household surveys, administrative records, and participatory studies and consultations undertaken specifically for the report. However, the survey data present a number of challenges; in particular, the interpretation of the most recent official data on welfare and poverty is controversial and intensely debated, and while more generally accepted data are available, they are often out-of-date and of dubious current relevance. Many of GOI's less controversial official surveys date from the early-to-mid 1990s and may no longer represent the realities of living conditions in the state. In addition, statistics derived from various data sources are often inconsistent. We raise these issues at various points in the report. *One of the key findings to emerge from this work is the urgent need to improve the quality and timeliness of statistics on poverty and living conditions, not only for UP but for India more widely.*

Overview of Data Sources

1.32 The primary sources of information on poverty and living conditions in India are the National Sample Surveys (NSS), which are conducted on an annual basis by the National Sample Survey Organization (NSSO), in GOI's Department of Statistics. Every five years, NSSO conducts an extensive consumer expenditure survey (with a "thick" sample of approximately 150,000 households) that is used by the Planning Commission to develop "official" poverty estimates at the state and national level. In intervening years, surveys are conducted on special topics, e.g. health and education, small scale enterprises, etc. As part of these surveys, data are collected on consumer expenditures from a smaller sample of households than in the quinquennial surveys; these "thin" rounds are not fully comparable with the "thick" rounds, not only because they have a smaller sample size, but also because their different purposes mandates a different sample design. In consequence, the GOI's official poverty statistics make no use of those rounds, though many outside researchers have done so (Visaria, 2000; Sen, 2001; Datt and Ravallion, 1998; Ravallion and Datt, 2001). In the 1980s and 1990s, thick sample consumption surveys were conducted in 1983 (NSS 38th round), 1987-88 (NSS 43rd round), 1993-94 (NSS 50th round) and 1999-00 (NSS 55th round). Extensive surveys of health and education services were conducted in 1986-87 (NSS 42nd round) and 1995-96 (NSS 52nd round). This report uses data from the official series of consumption surveys (with a caveat on the 55th round, discussed shortly) as well as the health and education surveys.

1.33 Several other government agencies and research organizations undertake household surveys – a large national survey of rural households carried out by the National Center for Applied Economic Research (NCAER) in 1993-94, and two rounds of the National Family Health Surveys (NFHS-1, NFHS-2), were carried out under the overall supervision of the International Institute for Population Studies (IIPS) in 1992-93 with a follow on survey in 1998-99. Statistics from these surveys are also used in the report.

1.34 There are problems of consistency between data sources, and in particular between statistics based on administrative records (e.g. on school enrollment and drop-outs) and statistics derived from household surveys. The report cites diverse sources and notes inconsistencies where they exist – as they do all too frequently. These inconsistencies are particularly severe in the case of education and assessing impacts of antipoverty programs. For example, administrative records aggregated to the state level show

that 92 million person-days of employment were generated under the state's employment guarantee programs (Swarnjayanti Gram Swarozgar Yojana (SGSY) and Employment Assurance Scheme (EAS), see Chapter 5 for a description of these programs) in 1999-00, for an average of 12 days per eligible household⁴. In contrast, according to early tabulations from the UP 55th Round Poverty Module (1999-00), only 1.3 percent of the poorest 40 percent of the population (lower two quintiles) reported working on Jawahar Rozgar Yojana and Jawahar Gram Samridhi Yojana (JRY/SGSY) or other public works schemes in 1999-00. Clearly there is a very large disparity between the estimated coverage of employment programs based on administrative records and coverage based on household survey data. There are large gaps in enrollment statistics as well, based on estimates for districts covered under the District Primary Education Project (Chapter 5). This highlights again the urgent need to improve the accuracy and consistency of the statistical data base in UP and India more generally.

The Poverty Debate and the NSS 55th Round

1.35 The NSS 55th round, conducted between July, 1999 and June, 2000, has been the subject of intense debate in India. It is GOI's most recent quinquennial survey of consumer expenditures, designed to draw a sufficiently large sample of households to derive official estimates of poverty at the state as well as national level. The 55th round was eagerly awaited by policy-makers and researchers throughout India, with the aim of establishing what has been the impact on poverty of recent economic reforms and India's high levels of economic growth through the latter part of the 1990s.

1.36 Unfortunately changes in survey methodology have rendered the 55th Round results incompatible, not only with the earlier "thick" rounds, such as the 50th and 43rd Rounds, but also with the "thin" rounds from the 51st to 54th inclusive (see, for example, Visaria, 2000, Sen, 2001, Tendulkar and Sundaram, 2001, Deaton, 2001, Ravallion and Datt, 2002. Also paras. 1.55-1.59 provide an overview). As a result, official estimates of poverty based on the NSS 55th round are not comparable with those from earlier rounds of the National Sample Survey, based on either the official estimates (for example from the 50th Round) or unofficial estimates made within the Bank or by other commentators.

1.37 A workshop⁵, jointly sponsored by the Planning Commission and the World Bank, was held in Delhi in January, 2002, to discuss poverty measurement, monitoring and evaluation, with particular focus on the debate surrounding poverty trends in the 1990s and the controversy surrounding the NSS 55th Round. Several alternative methods were presented at the workshop to estimate trends in poverty in the 1990s. Using a method developed to correct for differences in survey methodology, Deaton (2001) presents new 55th round state-level estimates of poverty designed to be consistent with estimates from earlier rounds of the NSS. Poverty estimates based on an alternative approach (Datt, Kozel, Ravallion, 2001), linking earlier poverty trends to plausible determining factors and using these factors to predict poverty levels in 1999-00, were also discussed at the workshop. Both methods suggest that there has indeed been a fall in national and state poverty rates over recent years though less than would be suggested by comparing the (incomparable) results from the 50th and 55th Rounds. In addition to GOI's official poverty estimates, alternative estimates using both of these methods are presented below.

1.38 While India's poverty monitoring system has been seriously compromised by the way in which the 55th Round was conducted, this should not detract attention from a number of other long-standing problems with the Indian poverty statistics. One of the most serious concerns the use of price indexes. Although the price indexes used to update the lines over time appear to be quite accurate, the same cannot

⁴ According to the Ministry of Rural Development, there were approximately 7.5 million Below-the-Poverty-Line (BPL) households in rural UP that were eligible to participate in the SGSY in 1999-00. Eligibility criteria for EAS households is roughly similar.

⁵ *India: Workshop on Poverty Measurement, Monitoring, and Evaluation*, January 11/12th, Imperial Hotel, Delhi.

be said of the price differentials between states and between the urban and rural sectors that are implicit in the official poverty lines. The introduction of the new methodology following the recommendations of the Expert Group in 1993 resulted in a subsequent serious overestimation of urban relative to rural poverty in a number of the large Indian states (see Dubey and Gangopadhyay, 1998; Deaton and Tarozzi, 1999, Deaton 2001).

The Poverty Module: UP's State Sample, NSS 55th Round

1.39 Despite the limitations of the NSS 55th Round for measuring poverty trends, the UP state-sample⁶ for the 55th Round includes some important innovations designed to provide more information about the relative living conditions of the poor within the state. These innovations are a part of the UP Poverty and Social Monitoring System (UP PSMS) that the Government of UP began to implement in mid-1999. In the context of ongoing institutional reforms, the UP PSMS seeks to monitor the evolution of a range of poverty and social outcome indicators. While the system cannot attribute causality between the changes observed and specific reforms, it nonetheless provides important information on how living standards respond to overall economic conditions in the state. It also provides information to assess how well the public sector is performing in delivering services to the poor.

1.40 In designing the system, GOUP identified a set of monitoring indicators and baseline information on these indicators was collected in conjunction with the state sample of the 55th round. The indicators include measures of (i) private consumption; (ii) poverty statistics (headcount index, poverty gap, severity of poverty), (iii) employment and wage rates, (iv) health outcomes (immunization, infant mortality rates), (v) education outcomes (literacy, enrollments, drop-outs), (vi) housing and infrastructure (access to clean water, sanitation, electricity), (vii) use of special antipoverty schemes and welfare programs, (viii) awareness of social rights, and (ix) measures of satisfaction and quality of services.

1.41 Attached to the state sample, a special Poverty Module (Schedule 99) was administered at the same time and for the same households as the conventional NSS 55th Round schedules (Schedules 1.0 and 10.0). The new module includes information on many of the monitoring performance indicators, for example, access to education and health services, basic infrastructure (water, sanitation), and coverage and use of specific Anti-Poverty Programs (APPs). It also includes questions on awareness and satisfaction with key government programs. This report uses these new data extensively (World Bank, 2002a). In addition, the Government of UP is preparing a comprehensive report based on the 55th Round Poverty Module to establish a statistical baseline for its Poverty and Social Monitoring System.

⁶ NSSO collects information at the all-India level using a sample frame that ensures that survey statistics are representative at the state level. In addition, state-level Directorates of Economics and Statistics (DES) collect a "matching sample" of households and communities, drawn at random from population. The matching samples are the same size as the NSS samples (approximately 15,000 households) and were designed to provide a cross-check on national survey statistics.

Box 1.1 Poverty and Social Monitoring in Uttar Pradesh

The Government of Uttar Pradesh is implementing a 5-year program to monitor overall progress at reducing poverty and improving key gender and social indicators in the state. A key objective of the UP Poverty and Social Monitoring System (UP PSMS) is to aid in monitoring the impact of key policy and reform measures on the poor, the standard against which the state's development efforts must be judged. The UP PSMS entails efforts along two critical dimensions – first, defining and measuring key performance indicators, and second, using the information to inform policy making and enhance transparency and performance in delivery of core services. But Government is not the only or even the primary stakeholder in the UP PSMS; the system has the longer term objective of keeping the public informed regarding the effectiveness and impact of public policy and spending decisions.

Work on the UP PSMS has been underway for nearly a year. Although institutional capacity within Government is limited, progress has exceeded expectations in a number of areas. A core set of gender-and caste-disaggregated poverty outcome indicators was identified early in the process and a special poverty module, measuring a wide range of key indicators at the household level, added to the state sample of the 1999-00 National Sample Survey (NSS). These data are now available and the GOUP is preparing a report documenting baseline poverty indicators, which will be disseminated widely throughout the state. Once the report is published, UP will have moved from being a state that has never even tabulated its state-sample NSS data to being one of the first states in India to have analyzed and published the results of the NSS 55th round. The next round of the NSS will be available with an even shorter time lag: under the auspices of the project, GOUP has decentralized data entry and management to the district level so that future survey results should be available within a few months of the time they are collected. Efforts are also underway to computerize the extensive base of information available at the village, block, and district level, e.g., on development indicators, prices, and wages. And a pilot project is being developed to improve the availability and accuracy of information on the performance of local public service providers, with the objective of improving local accountability and management of public services most needed by the poor.

The UP PSMS also involves building technical and institutional capacity -- in the Directorate of Economics and Statistics (DES) to collect and make information available, as well as capacity in the Department of Planning and line departments to use information more effectively. Many challenges remain: the UP PSMS is itself an important institutional reform and developing greater capacity in Planning and line departments to analyze and use this information to assess and ultimately improve performance will require continuing efforts.

Additional Field Studies

1.42 The report also builds on three World Bank sponsored studies of poverty initiated in the late 1990s and carried out in close collaboration with local researchers and NGOs in the state. The studies were launched prior to the NSS 55th Round, with the aim of filling in gaps in the existing survey data in some of the poorest regions, and adding a stronger qualitative dimension, missing from much of the previous research on poverty in the state. For example, prior to the Poverty Module in the UP 55th Round, there was little up-to-date information available on the impact of GOI's antipoverty programs on the poor, and limited information on access and use of basic services. Nor had much research been done to look at poverty from the perspective of the poor themselves, using methods developed from Participatory Rural Appraisal (PRA) work. These include qualitative research methods such as focus group discussions, semi-structured interviews, and a series of sorting, ranking and mapping exercises that are aimed at eliciting community-level perceptions and priorities.

1.43 The three studies are described below.

- **UP/Bihar Poverty Study.** In 1997-98, a study of poverty in eastern and southern UP and central Bihar was carried out in collaboration with Indian academics and NGO and community workers. Fieldwork took place over a period of 9 months, from June, 1997 through February, 1998. The study used a mix of qualitative research techniques and more conventional survey-based methods. It began with a qualitative examination of perceptions of poverty in 30 rural villages. This component of the study utilized PRA methods. These included social mapping, which provides a visual display of community members' perceptions of their village and its resources in social as well as economic terms; wealth ranking exercises, which examine local perceptions of the characteristics and concomitants of wealth and poverty; as well as case history interviews, and assessments of the role of services and programs, social capital and gender in determining who is and who remains poor.

In addition to providing important insights in their own right, the PRA findings were used to enrich and sharpen the design of the study's household and community questionnaires, which were designed as integrated living standards surveys. The field survey was carried between November, 1997 through February, 1998, in 120 villages (including the 30 covered in the qualitative component) with an overall sample size of 2250 households. Approximately half the households were drawn at random from three districts in Southern and Eastern UP – Banda, Allahabad, and Gorakhpur. In addition to self-standing analysis, the findings of the qualitative portion of the study are being used to inform, validate, and add explanatory material to the survey-based analyses. Joint use of the two methods yields a rich picture of the situation of the poor in rural UP and the broad factors that determine their well-being. The qualitative component allowed the researchers to better comprehend the significance to rural Indians of the economic and social patterns identified and documented by the survey results. Since the two methods produce different but complementary types of information, the combined methodology yielded a more comprehensive view of the multiple dimensions of poverty than could be obtained through either approach alone.

Findings of this initial study led to the implementation of two follow-on studies aimed at elucidating and clarifying points that had emerged as ambiguous during the data analysis. Since poor health was found to be an unexpectedly common cause of impoverishment, a district health assessment was implemented in one of the study areas to assess the strengths and weaknesses of the primary health care available to the poor. The on-the-ground functioning of the Targeted Public Distribution System (TPDS), a government food subsidization program that was praised by many informants, was the subject of the second mini-study. Its goal was to examine whether improvements in this much-criticized program were real or illusory, and to document the amount of leakage that occurs.

- **Consultations on Poverty Monitoring.** Consultations with villagers and other important stakeholders were held in four districts (one each in the Hill, West, Central and Eastern regions of UP) during November-December 1999. The goal of the consultations was to guide the Government of Uttar Pradesh in the selection of better and more widely-shared indicators, meaningful for the poor and population at large, for tracking progress at reducing poverty. The Government had developed a set of indicators reflecting their objectives and linked to the state's strategy for poverty reduction – for example, the proportion of people below the poverty line, wage rates for agriculture labor, primary school enrollments for children from poor and socially marginalized families. Further consultations were carried out under this study to determine how the poor themselves measure and judge progress at reducing poverty and improving living conditions. The field work and reporting was carried out by a local NGO -- Sahbhagi Shikshan Kendra (SSK). The team discussed key aspects of poverty with a variety of stakeholders in order to draw community-level viewpoints and understandings into the development of a set of indicators to measure changes in the social components of poverty. Findings were discussed with Government, and will influence future efforts to develop a qualitative component for the UP PSMS.
- **Urban Poverty in Uttar Pradesh.** During February and March, 2000, a field study examining the condition of the urban poor was carried out in UP by Vanangana, an NGO located in UP. The study built on the 1997 UP/Bihar Poverty Study and, to facilitate a comparison of rural and urban patterns of response, it employed an adapted version of qualitative research instruments initially developed for the rural study. Survey teams visited low-income urban communities in two large cities (Lucknow and Kanpur), two medium-sized cities, and five smaller towns. The goal was to explore the forces and factors supporting the persistence of poverty in the urban setting and to identify the coping strategies of the urban poor; particularly in terms of the economic and social strategies they pursue, the opportunities they recognize and exploit, and the barriers to success that they encounter.

1.44 The findings of these studies are used in many parts of the report; they help to enrich the analysis and extend the work to better address social issues and the perspectives of the poor themselves.

D. Defining Poverty: Levels, Trends, Vulnerability, and Voice

1.45 The remainder of the chapter examines poverty – broadly defined as *unacceptable deprivation in well-being* – in terms of material deprivation, human deprivation, and a range of other deprivations: lack of voice, vulnerability, violence, destitution, social and political exclusion, and lack of dignity and basic rights. It draws on a range of data sources and methods to define the extent of poverty in the state, as well as shed light on recent trends in poverty.

Poverty as Material Deprivation.

1.46 Despite the extensive Indian as well as international literature on poverty, poverty lines and poverty measurement, and years of methodological development, the definition of poverty is still a matter of debate. In India, and indeed throughout the world, the conventional approach equates poverty with material deprivation and defines the poor in terms of incomes or levels of consumption. The Planning Commission, for example, has for many years defined poverty in terms of the level of per-capita consumer expenditure sufficient to provide an average daily intake of 2400 calories per person in rural areas and 2100 calories per person in urban areas, plus a minimal allocation for basic non-food items. From that benchmark, estimated state-level poverty lines vary according to cost-of-living differentials.

1.47 As noted above, questions have been raised regarding the methods used to estimate India's official poverty lines as well as the reliability and comparability of the data sources on which poverty estimates are based. Researchers have suggested alternative poverty lines to address specific methodological concerns (see Dubey and Gangopadhyay, 1998, for an overview of methodological issues and various derivations of poverty lines and price adjustments; also Deaton, 2000, 2001). India's official poverty lines, set by the Planning Commission using the Expert's Group methodology (GOI, 1997), are used throughout this report – they have the advantage of comparability and broad acceptability within India (Annex Table 1.1 presents official poverty lines through 1999-00). Further work remains to be done to revise and build consensus around an improved set of poverty lines.

1.48 There is no doubt that material deprivation is a key factor that underlies many other dimensions of poverty. To be materially poor in India is to be poor indeed; India's official poverty lines represent living standards well below the World Bank international comparator line of \$1.08 per person per day in 1993 PPP-adjusted prices.⁷ But what does it in fact mean to be poor in India? It is easy to think of poverty as a statistical construct. It becomes real when we look at what it means to exist at a subsistence level in rural India. Drawing on data from the 1993-94 NSS, a person living at India's official poverty line⁸ would have spent Rs. 6.8 per day (about 22 cents) and, on a typical day, this amount of money would translate into food consumption of:

⁷ The head-count rate in 1997 in India using the international \$1 per day line is 44 per cent (World Development Report 2000/01) which is considerably higher than the All-India 1993-94 Planning Commission estimate of 37 percent.

⁸ Using the all-India average rural food consumption from the NSS 50th Round, 30-40 percent fractile.

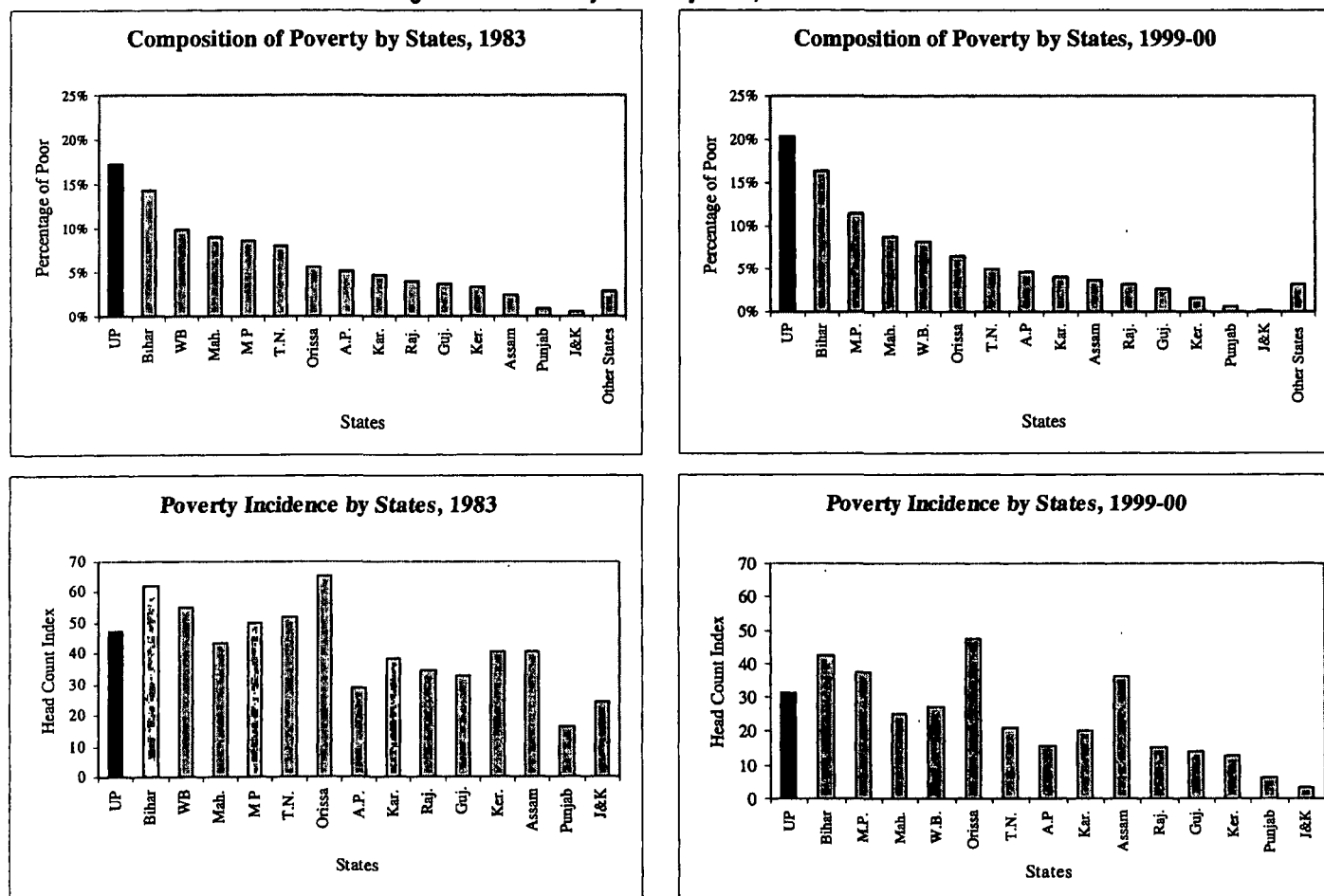
Three scant plates of cooked rice, or 8-10 chapattis
 A half cup of cooked pulses
 A spoon of edible oil
 A spoon of dried chili
 One medium-sized potato, or onion,
 One cup of tea
 A handful of brinjal
 One half cup of milk
 One banana three times each month
 An egg every five days

1.49 While relative prices have changed, and hence the composition of food consumption must have changed in recent years, the change is likely to be marginal; the 1993-94 food basket is still relevant for the poor today. After buying food, two additional rupees each day (about 6 cents) would be left over for items like medicines, school books, fuel for cooking, clothing, soap, durable goods, etc. *And one-third of India's rural population cannot even afford this frugal bundle.* (World Bank, 1997)

Poverty Trends: Progress and Recent Puzzles

1.50 UP has high levels of poverty in comparison to other Indian states, progress has been uneven over the past decade, and UP still lags behind many other states in combating poverty. (Figure 1.1) Despite progress in the 1980s and 1990s, the proportion of India's poor living in UP has risen from 17 percent (1983) to over 20 percent (1999-00). Moreover, the figure suggests a slight but discernable increase in the concentration of the poor in India's large, poor northern states.

Figure 1.1 Poverty Levels by State, 1983 and 1999-00



Official Estimates Based on the NSS 38th Round and NSS 55th Round

1.51 Official estimates for UP suggest a decline in poverty between 1983 and 1987-88, with progress diminishing through 1993-94 (Table 1.2). Inequality fell substantially between 1983 and 1993-94, and the depth and severity of poverty in both urban and rural areas improved significantly (Table 1.3). Despite this progress, an estimated 41 percent of the population still lived below the official poverty line in 1993-94, and poverty levels in rural areas (which in 1993-94 accounted for 83 percent of UP's poor) had fallen very little as compared to a steady reduction in urban poverty.

Table 1.2 Trends in Poverty: Uttar Pradesh and All-India Headcounts

Year	NSS Round	UP: Head-Count Measure			All-India: Head-Count Measure		
		Urban	Rural	Overall	Urban	Rural	Overall
1983	38 th	49.8	46.4	47.1	40.8	45.7	44.5
1987-88	43 rd	43.0	41.1	41.5	38.2	39.1	38.9
1993-94	50 th	35.4	42.3	40.9	32.4	37.3	36
1999-00							
-official	55 th	30.9	31.2	31.1	23.6	27.1	26.1
-corrected	55 th	30.4	33.7	33.0	24.7	30.2	28.6

Source: NSS Consumer Expenditure Surveys, official poverty lines, Corrected estimates from Deaton, 2001

Table 1.3 Urban and Rural Poverty Levels, Depth, and Severity in Uttar Pradesh

Region	1983 (NSS 38 th Round)					1993-94 (NSS 50 th Round)				
	Mean* Expenditures	Gini Coefficient	Poverty Measures			Mean* Expenditures	Gini Coefficient	Poverty Measures		
			Incidence H	Depth P1	Severity P2			Incidence H	Depth P1	Severity P2
Urban	156	0.42	49.8	15.5	6.9	389	0.33	35.4	9.0	3.3
Rural	113	0.37	46.4	13.6	5.9	274	0.28	42.3	10.4	3.5
<i>Uttar Pradesh</i>	156	0.38	47.1	13.9	6.1	296	0.30	40.9	10.1	3.5

Region	1999-00 (NSS 55 th Round)				
	Mean* Expenditures	Gini Coefficient	Poverty Measures		
			Incidence H	Depth P1	Severity P2
Urban	697	.34	30.9	6.9	2.1
Rural	473	.25	31.2	5.6	1.6
<i>Uttar Pradesh</i>	641	.28	31.1	5.8	1.8

Source: NSS 38th Round, NSS 50th Round, NSS 55th Round

*Mean expenditures in current rupees per capita per month

Poverty measures estimated using the official poverty lines

The measures presented are from the FGT class of poverty measures, corresponding to alpha=0, 1, 2

1.52 What happened to poverty in the latter half of the 1990s? The Planning Commission recently issued official estimates of poverty for all states based on the NSS 55th Round⁹. These official estimates suggest rapid reductions in poverty in UP: the headcount index is estimated to have fallen from 41 percent of the population (62 million persons) in 1993-94 to 31 percent (54 million persons) in 1999-00, a net reduction of 9 million persons over six years (Table 1.2, official estimates). Three quarters of this reduction is in rural areas; the rural headcount index fell from 42 percent to 31 percent, while the urban headcount index decreased from 35 percent to 31 percent. Moreover, estimates based on published per-

⁹ Planning Commission Press Release, February 22, 2001, numbers based on 30 day recall.

capita expenditure distributions from the 55th Round suggest significant improvements in both urban and rural areas in the depth and severity of poverty in the latter half of the 1990s. (Table 1.3) Inequality continued to fall in rural areas which contributed to the measured fall in rural poverty.

1.53 In comparison, at the all-India level, official estimates from the 55th Round imply a net reduction in rural poverty of 60 million persons between 1993-94 and 1999-00 – urban poverty fell by around 8 percentage points (from 32 percent to only 24 percent); rural poverty is estimated to have fallen by 10 percentage points (from 37 percent to 27 percent). UP, as one of the strongest performing states according to 55th Round estimates, accounts for 15 percent of the total drop in poverty in India in the latter half of the 1990s. Parenthetically, official estimates put Bihar in second place to UP, having lifted some 10 million of its rural inhabitants out of poverty between 1993-94 and 1999-00.

1.54 Is the dramatic progress suggested by 55th Round estimates credible? The interpretation of the most recent official data on welfare and poverty has been intensely debated. Changes in survey design for the 55th Round cast doubt on the resulting poverty estimates with those from earlier rounds of the NSS.

India's Poverty Debate: Corrected Poverty Estimates

1.55 The debate hinges on the impact of changes in reference periods used for measuring consumption in the 55th Round. Since India's NSS began in the 1950s, it has used a 30-day recall for consumption. In the thin samples of the 51st, 52nd, 53rd, and 54th Rounds, households were randomly divided and some given an experimental questionnaire with a 7 day recall period for some items (including foods) and either 30-day or 365-day recall for others, while others were given the traditional 30-day questionnaire for all items. The results from those rounds showed that the experimental questionnaire, and particularly the 7-day recall period for food, yielded higher reported rates of monthly purchases and, in consequence, much lower rates of poverty than the traditional questionnaires. This effect was large enough to effectively cut poverty rates in half when the experimental questionnaire was used in place of the traditional 30-day questionnaire. (Visaria, 2000) Although further work remains to fully understand why the different recall periods produce such different results, the *ratios* of average reported expenditures from one questionnaire to another (7-day as compared to 30-day recall) are remarkably constant across these experimental thin rounds.

1.56 In the 55th round, *all* households were given *both* questionnaires, a procedure which invited them (or possibly the enumerators) to reconcile the rates of consumption over the two reporting periods. As a result, although expenditures reported from the experimental questionnaire are still higher than those from the traditional questionnaire, the ratio of one to the other is much closer to one than was the case in the experimental rounds. Hence, although the procedure in the 55th Round may have yielded good consumption estimates in itself, they are not comparable with earlier results. More particularly, consumption estimates from the traditional 30-day questionnaire are higher than would have been the case had households been given only the traditional questionnaire, while consumption estimates from the experimental questionnaire are lower than would have been the case had households only been given the experimental questionnaires. The official poverty counts from the 55th Round 30-day questionnaire may therefore be good poverty counts on their own terms, but they are artificially low compared with the counts in the 43rd and 50th Rounds. The 10 percentage point fall in the national poverty rate between 1993-94 and 1999-00 (using 30-day recall) is therefore certainly too high, though we have no way of knowing by how much.

1.57 Deaton (2001, see also Annex I) has developed a procedure for adjusting poverty estimates from the 55th Round to make them comparable with estimates from earlier large-sample rounds of the NSS (for a similar method also see Lanjouw and Lanjouw, 2001, also Tarozzi, 2001). The method exploits the fact

that some broad categories of consumption items¹⁰ were measured consistently (i.e. using the same recall period) across all rounds of the NSS, including the 55th Round. He estimates corrected poverty levels for the 55th round based on two assumptions: first, the marginal distribution of the consistently measured goods is not affected by the change in survey design, and second, the distribution of total consumption conditioned on consumption of these goods does not change over time and can be inferred from the 50th Round. Evidence from the thin samples suggests that there is a stable functional relationship between spending on these good and total household expenditures per capita. At the all India level, Deaton's work suggests that some 30 percent of the drop in rural poverty shown by official estimates (1999-00 as compared to 1993-94) can be attributed to changes in survey design, and 15 percent of the drop in urban poverty.

1.58 Deaton's corrections have less impact on 55th Round poverty outcomes in the specific case of UP – a 20 percent of the drop in rural poverty in UP can be attributed to changes in survey design, and there is virtually no impact on 55th Round urban poverty estimates. The corrected headcounts for the 55th Round are presented in Table 1.2, just after the official estimates. These suggest a marginally *lower* level of poverty in urban areas (30.4 percent as compared to the official estimate of 30.9 percent) and a *higher* level of poverty in the countryside (33.7 percent as compared to an official estimate of 31.2 percent). In short, these corrected estimates still indicate that UP has made significant progress at combating poverty in the latter part of the 1990s.

1.59 Again, are these corrected poverty estimates credible in light of UP's sluggish economic performance in the 1990s? Historically, the rate of poverty reduction in India is closely related to the rate of economic growth, particularly growth in the agriculture sector. The trend in wages' rates for agricultural laborers is another strong correlate of the trend in poverty. Growth in UP's economy was sluggish until the late 1990s (Table 1.4) with higher growth rates in non-agriculture sectors of the economy. In contrast, output in the agriculture sector, a critical source of income for the rural poor, grew slowly and experienced significant volatility throughout the 1990s. Available data suggest that wages for agriculture laborers were virtually stagnant in the mid-1990s, with real increases occurring only at the end of the decade. Note also that agriculture wages grew more rapidly in the Central and Eastern regions of UP, areas with high concentrations of poverty and traditionally low rates of economic development.

Table 1.4 Economic Trends in the 1990s

	1990-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	Average Growth Rates*	
										90-91 – 93-94	94-95 – 98/99
Real Growth Rates (%)											
Gross State Domestic Product	5.9	1.3	1.7	2.9	7.0	2.9	7.2	2.3	3.6	1.9	4.0
Agriculture and Allied Services	6.8	3.1	-1.8	4.1	4.0	1.1	8.4	-2.9	1.1	1.7	1.8
Industry	8.9	2.3	0.5	1.4	15.2	4.1	5.3	5.3	4.6	1.4	4.8
Manufacturing	5.0	-1.1	3.1	2.9	22.4	0.1	6.1	4.3	3.1	1.6	3.4
Services	4.0	-0.4	5.5	2.3	5.2	4.1	7.3	5.3	5.3	2.5	5.5
Per capita Income	3.5	-1.1	-0.7	0.4	4.5	0.8	5.1	0.2	1.3	2.4	2.1
										Actual Wages (Rs. 1993-94)	
Real Agr. Wage Index (1993=100)	Pop. Weights										
Unskilled Average	83.9	90.1	101.4	100.0	96.9	99.2	96.6	108.7	109.6	31.0	
Himalyan	4%	82.7	85.0	98.2	100.0	95.6	99.8	96.9	103.9	104.7	39.1
Western	36%	87.9	91.4	102.0	100.0	95.1	95.4	91.8	105.5	105.1	36.9
Central	18%	81.7	91.9	102.1	100.0	97.4	103.3	100.0	109.1	110.7	25.8
Eastern	37%	80.5	88.2	100.6	100.0	98.0	100.1	99.6	113.2	113.2	27.2
Southern	5%	88.8	92.2	103.6	100.0	100.2	105.1	95.9	101.5	114.9	28.4

*Compound Growth Rates.

Source: Central Statistical Organization, wage data supplied by Directorate of Economics and Statistics, GOUP.

¹⁰ Categories include fuel and light, miscellaneous goods, miscellaneous services, non-institutional medical services, rent, and consumer cesses and taxes.

1.60 While the rate of reduction in the headcount measure is not just a function of the rate of growth (e.g. in mean consumption) and changes in distribution. Recent empirical analysis suggests that, while UP witnessed significant reductions in the percentage of people living below the poverty line, it has also experienced slow growth (on the order of 1.4 percent annually) in mean per-capita consumption levels (comparing consumption estimates from the NSS 50th round with corrected consumption estimates from the 55th Round). The sharp reduction in the headcount ratio is in part explained by the fact that many households are concentrated around the poverty line and the slope of the distribution curve is quite steep at that point; a little growth thus can result in a substantial reduction in the number of people living below the poverty line. Measures of the depth and severity of poverty show little change between 1993-94 and 1999-00. It is important to keep in mind that many of the erstwhile poor still have low consumption levels and remain vulnerable to income and other shocks that can push them back into poverty.

A Different Approach: Predicting Poverty Levels

1.61 Given the ambiguity in the results from the 55th Round, alternative estimates have been made using a model-based approach for predicting poverty. Past research (Datt and Ravallion, 1998; Ravallion and Datt, 2001) indicates that the key determinants of poverty at the state level in India are economic growth and its sectoral composition (depending on initial conditions), development spending, and inflation. An econometric model was calibrated to the time series data by states up to 1993-94 and then used to predict poverty using actual measures of determining variables (Datt, Kozel, and Ravallion, 2001, also Ravallion and Datt, 2001, see Annex II). The model predicts state-wide poverty measures and allows for state-specific growth elasticities of poverty, which vary according to initial conditions. A slightly different set of poverty lines has been used (Datt and Ravallion, op. cit.) for the poverty predictions; levels and trends are presented in Table 1.4.

Table 1.5 Alternative Trends in Poverty, Model Predictions: Uttar Pradesh and All-India

Year	NSS Round	UP: Head-Count Measure			All-India: Head-Count Measure		
		Urban	Rural	Overall	Urban	Rural	Overall
1983	38 th	50.0	44.7	45.7	41.5	49.2	47.4
1987-88	43 rd	44.2	41.4	41.9	39.2	44.0	42.9
1993-94	50 th	34.3	41.6	40.0	31.1	41.9	39.1
1999-00 -predicted	55 th	29.3	37.1	35.4	25.6	37.5	34.3

Source: NSS Consumer Expenditure Surveys, revised poverty lines; Datt, Kozel, Ravallion, 2001

1.62 Like Deaton's corrected estimates, the model also suggests that the 55th Round overestimates the fall in poverty post-1993-94. In the specific case of UP, the model predicts an annual rate of poverty reduction of around .8 percentage points each year as compared to the 2.0 percentage points annual reduction implied by official 55th Round poverty counts. Discrepancies are greatest in the case of rural areas – both the official and corrected estimates indicate far more progress that would be predicated based on sectoral growth rates and other poverty determinants.

1.63 Model predictions at the all-India level in many ways mirror those of UP – there are significant discrepancies between official estimates of the rate of progress in rural area and the predicted rate of progress. All-India results are to a large extent determined by discrepancies in India's largest and poorest states – UP and Bihar – as well as Maharashtra. For example, official estimates suggest that, between 1993-94 and 1999-00, rural poverty has fallen by 2.5 percentage points a year in Bihar (1.5 percentage points corrected) as compared to a predicted rise of .6 percentage annually based on the modeling exercise.

1.64 The poverty debate is far from resolved. However, regardless of the method used, there are indications that UP has made significant progress in reducing poverty in the latter half of the 1990s. The challenge lies in sustaining and further accelerating this progress.

Regional Dimensions of Poverty

1.65 Home to 160 million people, UP is larger than most countries in the world. There are longstanding, historic differences across regions in the state (Table 1.6). The densely populated Western, Central, and Eastern regions fall within the indogangetic plains and are endowed with rich, fertile soil. The Himalayan Region (now Uttaranchal State) is mostly mountainous except for the Terai subregion in the foothills. The Southern Region falls in the central Indian plateau and is set apart by low rainfall and rocky terrain. Population densities have increased over time and average landholdings per household fallen substantially throughout the state.

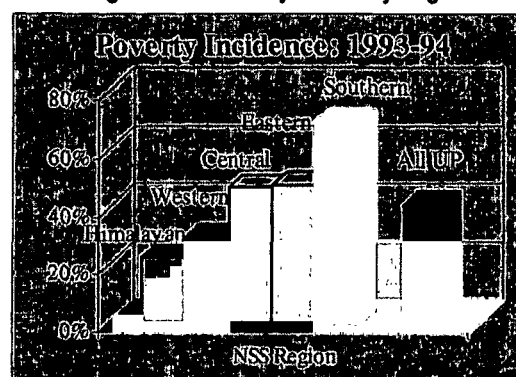
Table 1.6 Socioeconomic Indicators by Region

Development Indicator	Year	Regions					
		Western	Central	Eastern	Southern	Himalayan	All UP
Population Density (Per Sq. Km)	1991 Census	603	528	614	229	116	473
	2001 Census	831	729	849	309	-	754
Percentage Literate	1991 Census	42.0	42.6	38.6	42.3	59.6	41.6
	1999-00 55 th Round	47.8	46.7	45.2	48	66.3	47.5
Female Literacy	1991 Census	26.6	28.3	20.9	23.9	42.9	25.3
	1999-00 55 th Round	32.3	30.8	27.6	32.9	52	31.1
Area under Food Grain Production ('000 ha.)	1998-99	5918	3811	7497	2062	-	19288
Average Size of Landholding (in hectares)	1991 Census	1.09	0.85	0.67	1.71	0.94	0.9
	1999-00 55 th Round	0.73	0.68	0.63	1.56	0.60	0.72

Source: Population Census, 1991 and 2001, NSS 55th Round 1999-00, and CMIE, 1998.

1.66 Levels of poverty vary, with poverty rising from west to east¹¹. Through the 1980s and early 1990s, poverty was lowest in the erstwhile Himalayan (now Uttaranchal state) and Western Regions. The poverty rises sharply in the Central and Eastern Regions and is highest in the Southern Region (Figure 1.2). So stark is the contrast across regions that Southern UP holds four times as many poor as the Himalayan region, even though the two have roughly equal populations. With the exception of the Southern Region, which has been lagging behind the rest of the state, progress at reducing poverty in the 1980s and early 1990s was fairly evenly distributed across regions (Annex Table 1.2).

Figure 1.2 Poverty Levels by Region



Source: NSS 50th Round.

¹¹ India's official poverty estimates use a single poverty line for the state. They do not take into account possible price variations across regions in the state. This may act to lower poverty estimates for mountainous regions, where prices are higher due to added transport costs.

1.67 What progress has there been in recent years? Lack of comparability between the 55th Round and earlier rounds of the NSS makes it difficult to know with certainty if there have been changes in regional patterns of growth and poverty reduction in the latter half of the 1990s. Table 1.7 shows headcount indices by region, drawing on data from the NSS 50th and 55th Rounds (official and corrected). As with state-level 55th Round poverty estimates, these numbers should be interpreted with caution. Figure 1.3 shows the regional composition of the poor as compared to the regional composition of the population in 1993-94 and 1999-00. These data do not suggest radical shifts: Central and Eastern UP house a disproportionate share of UP's poor relative to their population shares. However, when compared to similar estimates for the NSS 50th Round (1993-94), there are indications of a marginal drop in the share of the poorest households living in the Eastern and Southern regions – historically backward areas and, accounting for a substantial share of the poor and socially marginalized in the state – and some increase in other regions, particularly the Central region. These trends are consistent with regional trends in agriculture wage rates described in Table 1.4. Further work remains to confirm and better understand these findings, particularly the apparent decrease in poverty identified in the Southern region of the state¹².

Table 1.7 Regional Trends in Poverty

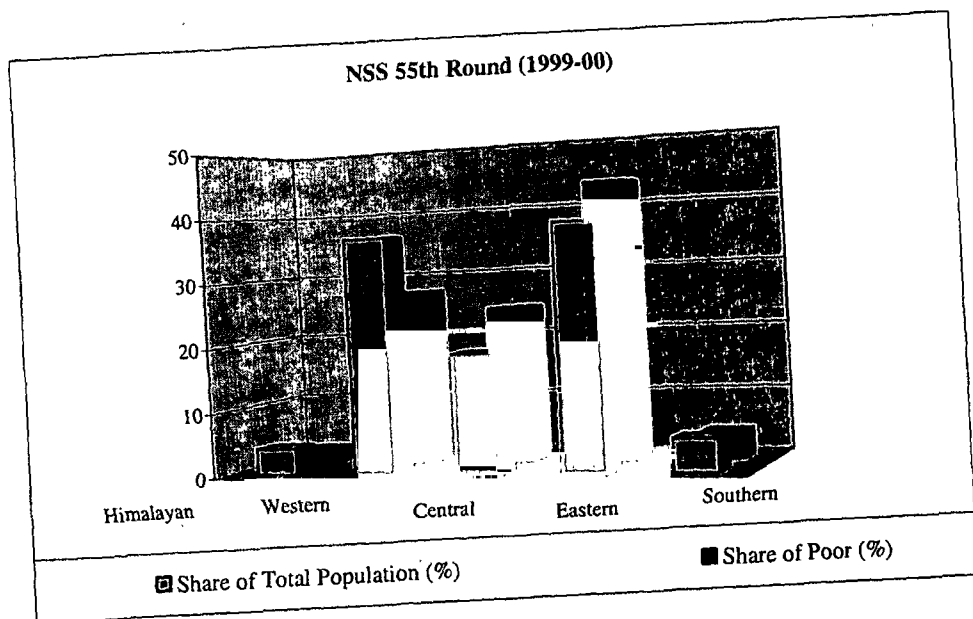
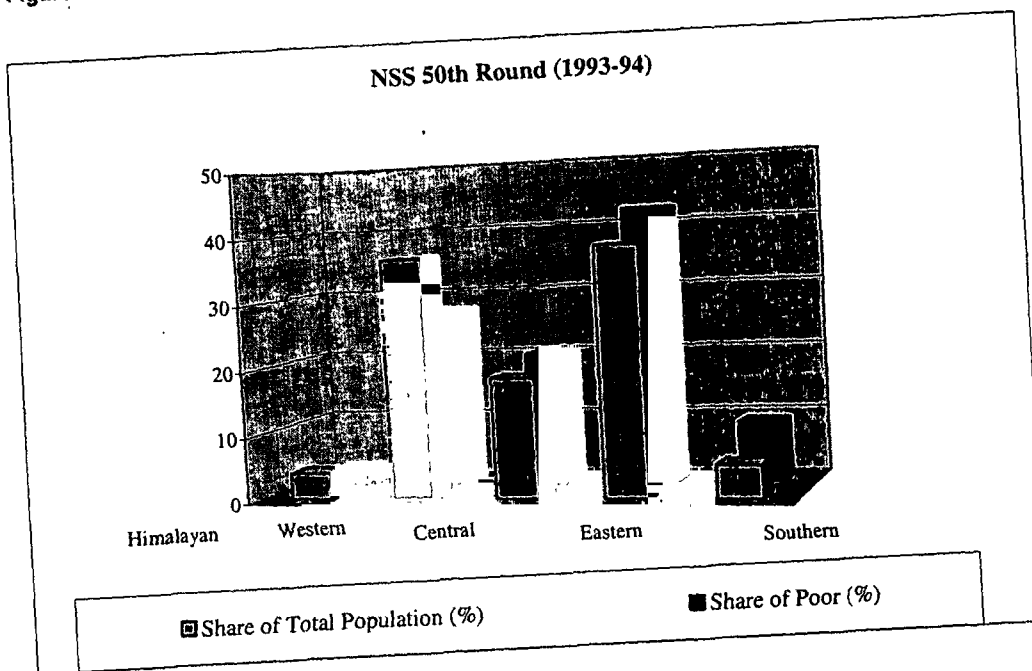
1993-94						
Region	Incidence of Poverty			Percentage of:		
	Urban	Rural	Overall	Population	Poor	
Himalayan	12.7	24.8	22.5	4	2	
Western	31.1	29.3	29.8	36	27	
Central	33.9	50.2	46.7	18	20	
Eastern	38.6	48.8	47.5	37	42	
Southern	74.4	67.4	68.9	5	9	
Uttar Pradesh	35.1	42.3	40.9	100	100	

1999-00							
Region	Incidence of Poverty				Percentage of:		
	Urban		Rural		Overall	Population	Poor
	Official	Corrected	Official	Corrected			
Himalayan	14.1	(19.7)	15.6	(18.1)	15.2	4	2
Western	30.0	(30.5)	21.7	(22.5)	23.9	36	27
Central	33.4	(30.0)	42.2	(43.0)	39.7	18	24
Eastern	31.1	(33.7)	36.4	(40.3)	35.9	37	43
Southern	40.9	(38.1)	20.9	(38.1)	24.4	5	4
Uttar Pradesh	30.7	(30.4)	31.1	(33.7)	31.0	100	100

Source: 1993-94, 1999-00 NSS

¹² The number of households included in the sample for the Himalayan Region (Uttaranchal) and Southern Region is very small; sampling errors are likely to be large.

Figure 1.3 Regional Distribution of the Poor as Compared to the Population, 1993-94 and 1999-00



Poverty as Human Deprivation

1.68 Despite uncertain progress at reducing material deprivation, there has been greater progress in human development in the state throughout the 1990s. Human development indicators capture important dimensions of well-being and reflect not just the rate of growth in the economy but also levels and quality of public spending. They flesh out the picture of poverty and of the fight against it. Effective public spending on basic services (e.g. education, health, water and sanitation) can compensate for the limited capacity of the poor to purchase these services through the market. Because the impact of spending on public goods and services is not reflected in conventional measures of income poverty, progress is better reflected in outcome measures.

1.69 *Education* is a key indicator of human development. Many desirable social and economic outcomes are linked to rising levels of education, particularly education of women and of socially vulnerable groups. Literacy has improved steadily over time in UP, but as of the mid-1990s, two-thirds of rural women were still not able to read or write, and only 15 percent had more than five years of schooling (Table 1.8). Rural men fare better; by the mid-1990s, two-thirds of them were literate, and 36 percent had completed schooling beyond the primary level. Literacy in urban areas is much higher, although one-third of urban women were still illiterate in the mid-1990s.

Table 1.8 Highest Educational Attainment of the Population

Educational Attainment	1986-87 (NSS 42 nd Round)			1995-96 (NSS 52 nd Round)		
	Urban	Rural	Overall	Urban	Rural	Overall
	Men (15 years and older)					
Not literate	27	53	48	14	35	30
Less than Primary	8	9	8	8	11	10
Completed Primary	14	12	12	15	17	17
Completed Middle	16	13	14	22	19	20
Completed Secondary	11	6	7	18	10	12
Completed Higher	25	7	10	24	7	11
<i>Overall</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
	Women (15 years and older)					
Not literate	55	85	80	33	67	59
Less than Primary	6	3	3	8	7	7
Completed Primary	9	5	6	14	11	12
Completed Middle	8	3	4	17	9	11
Completed Secondary	7	1	2	13	4	6
Completed Higher	15	3	5	15	2	5
<i>Overall</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>

Source: NSS 42nd and 52nd Rounds.

1.70 Estimates from the 2001 Population Census (February, 2001) indicate that UP has made significant progress in increasing literacy levels over the past decade: literacy increased by nearly 17 percentage points between 1991 and 2001. Despite this, the state still compares poorly to many other Indian states – almost 70 million people who live in UP still cannot read or write (Table 1.9). Raising women's literacy remains a significant challenge: only 43 percent of females are now literate, in contrast to 70 percent of males.

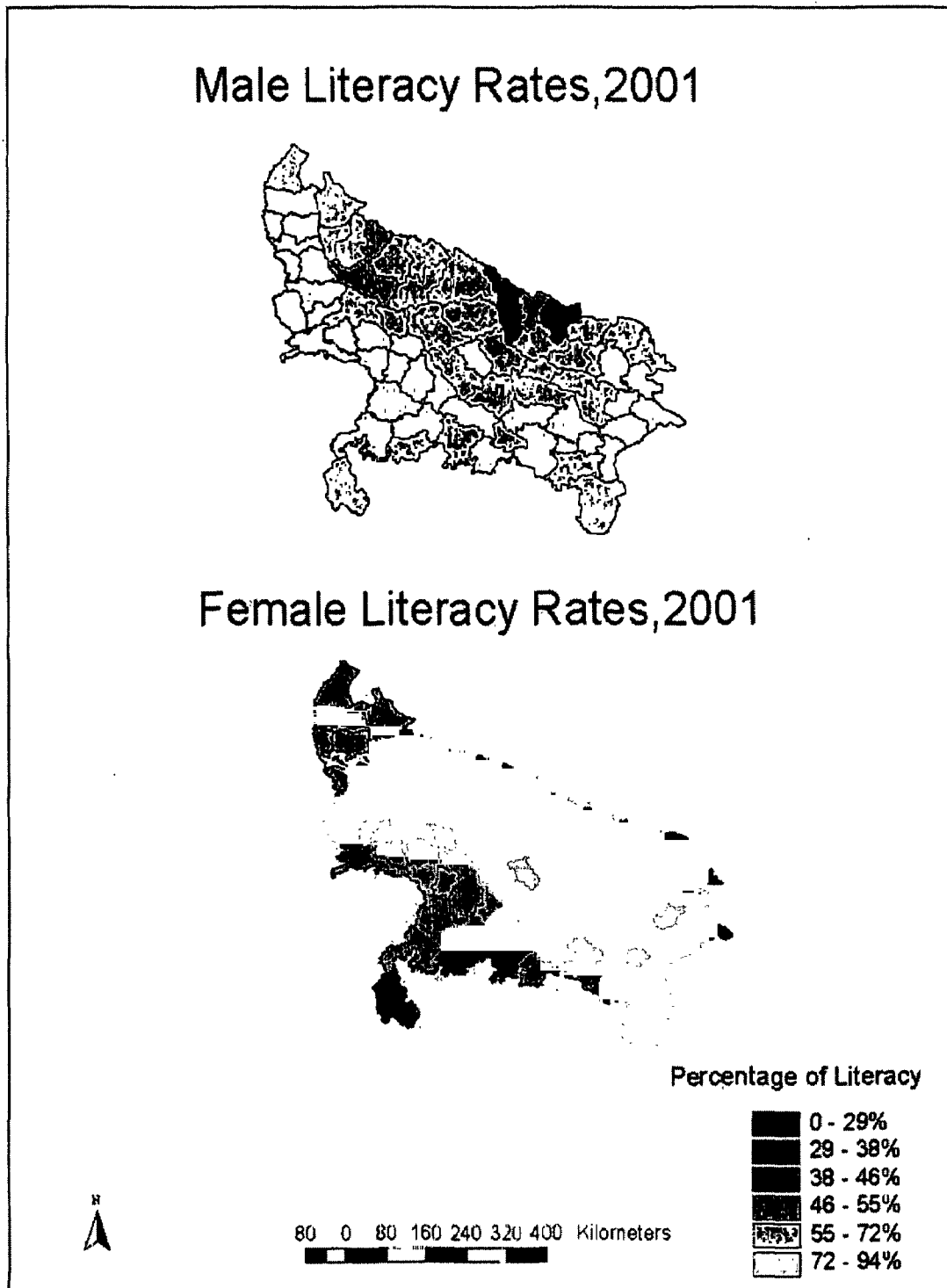
Table 1.9 Literacy Rates for Selected States, By Gender

	2001 Pop Census, Percent			Literacy, 1991	Change, 1991-2001
	Literate Total	Males	Females		
Uttar Pradesh	57.4	70.2	43.0	40.7	16.7
All-India	65.4	76.0	54.3	51.6	13.8
Bihar	47.5	60.3	33.6	37.5	10.0
Rajasthan	61.0	76.5	44.3	38.6	22.5
Andhra Pradesh	61.1	70.9	51.2	44.1	17.0
Karnataka	67.0	76.3	57.4	56.0	11.0
Kerala	90.9	94.2	87.9	89.8	1.1

Source: 2001 Population Census, (www.censusindia.net/results/provindia2.html).

1.71 State averages mask wide regional variations. Figure 1.4 shows male and female literacy rates by district. While there has been progress, enormous gaps remain. Only 5 districts out of the 70 in the state report average literacy rates for men that fall *below* 55 percent; in contrast, there are only 5 districts out of 70 in which in which average female literacy is *above* 55 percent.

Figure 1.4 Literacy Rates by District



1.72 What of the future? Rising *enrollment rates* throughout the state, particularly for girls and members of disadvantaged groups, add to the stock of human capital and bode well for UP's future. However the picture is blurred; serious discrepancies separate enrollment estimates derived from households surveys (e.g. the NSS) and estimates from administrative sources. NSS estimates from the mid-1990s suggest that 75-80 percent of boys (aged 6-14 years) in the state were enrolled in school, and enrollment rates in rural areas were only marginally lower than those in urban areas. In contrast, while girls' enrollments were similar to boys' in urban areas, still only 45-50 percent of rural girls were reported to be enrolled in school as of the mid-1990s. More recent information suggests substantial improvements in school enrollments, particularly for girls and children from scheduled caste and tribal families, in the latter half of the 1990s; for example, recent estimates based on the second round of the National Family Health Survey (NFHS-2, 1998-99) point to sharp increases in aggregate school attendance. EMIS data from the Directorate of Basic Education in UP suggest that in the districts where the District Primary Education Project (DPEP) was active, enrollments may have doubled since 1993. An analysis of schooling data from the state-sample NSS 55th Round shows significant increases in enrollment rates of rural girls, so much so that the gap in enrollment rates for boys and girls has nearly closed. For example, enrollments of rural girls belonging to Scheduled Castes and Scheduled Tribes (SC/STs) are estimated to have risen from 45 percent in 1995-96 to 60 percent in 1999-00, and in urban areas from 72 percent to 76 percent over the same time period. What is worrisome, however, is an indication that the rate of progress in boys enrollments may have slowed in the latter half of the 1990s, and there are still very low enrollments among the urban poor, even lower than those of the rural poor. (Chapter 5)

1.73 Despite recent progress, enrollments in Uttar Pradesh still lag behind those of many states (Table 1.10). However, UP made better progress at improving enrollments of girls and socially marginalized groups between the mid-1980s and mid-1990s than states such as Andhra Pradesh and Karnataka, and various data sources suggest that progress is continuing. This bodes well for mobility of marginalized groups and more rapid reductions in poverty in the state.

Table 1.10 Net School Enrollment Rates in Uttar Pradesh, By Caste and Gender

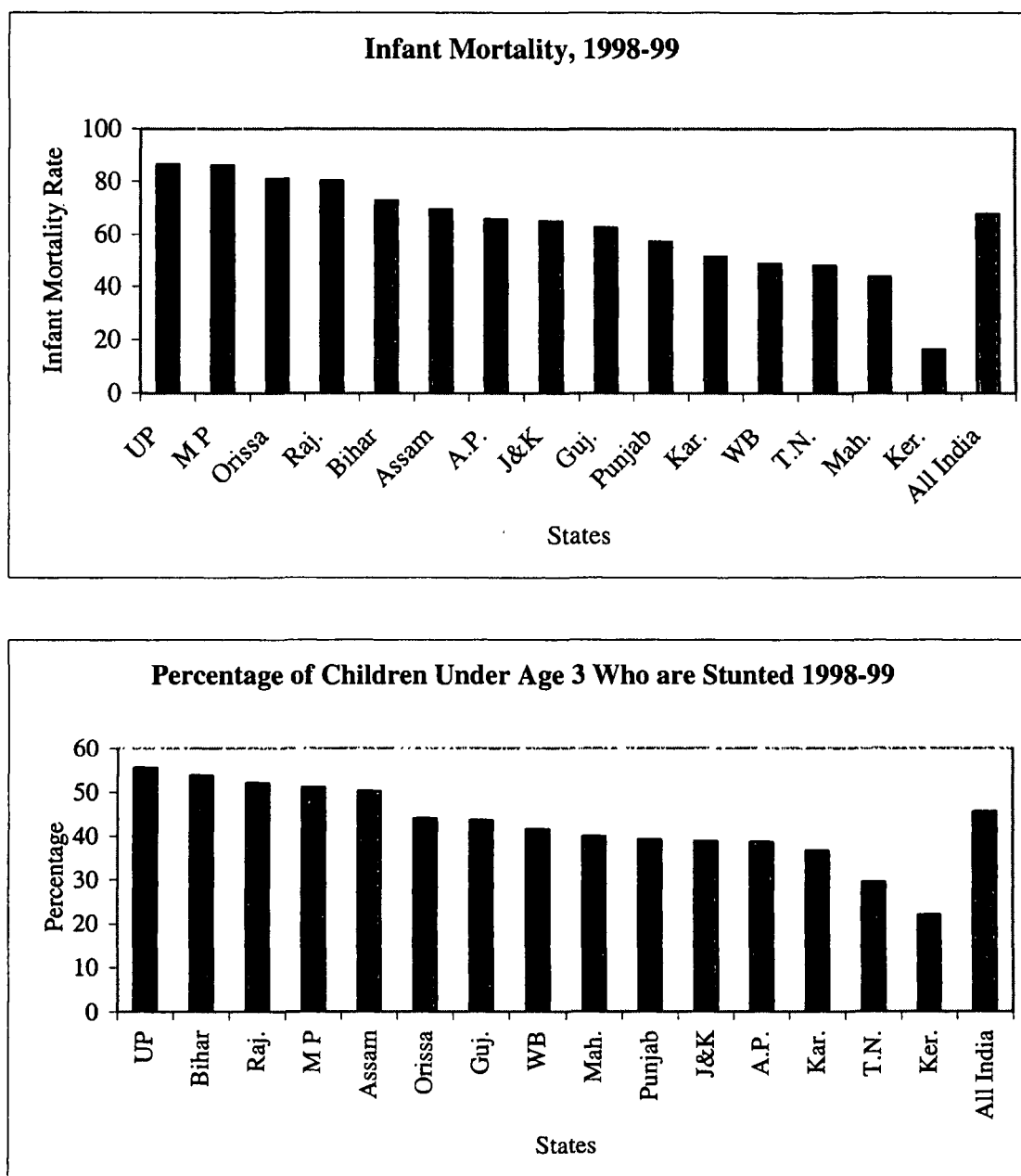
School Enrollments	1986-87 (NSS 42 nd Round)			1995-96 (NSS 52 nd Round)		
	Girls	SC/ST Girls	Boys	Girls	SC/ST Girls	Boys
	Urban (7 to 12 year olds)					
Uttar Pradesh	60	41	68	75	72	81
All-India	75	63	81	85	80	89
Bihar	52	49	66	76	72	80
Rajasthan	65	40	77	81	62	88
Andhra Pradesh	76	82	78	85	78	89
Karnataka	76	63	78	88	63	89
Kerala	98	97	98	98	97	97
	Rural (7 to 12 year olds)					
Uttar Pradesh	29	20	62	52	45	75
All-India	43	31	65	62	53	76
Bihar	27	11	46	41	27	60
Rajasthan	25	14	65	42	41	76
Andhra Pradesh	39	37	66	62	50	71
Karnataka	50	33	69	61	45	79
Kerala	95	94	95	98	98	98

Source: NSS 42nd and 52nd Rounds.

1.74 *Health status* is another key indicator of human development. The people of UP suffer from a high burden of illness, particularly in comparison with the rest of India. Based on estimates from the Office of the Registrar General (ORG, 1999), life expectancy at birth in UP is 61 years for both males and

females, well below the national average (62.4 years for males, and 63.4 years for females.) The total fertility rate was estimated at 4.8 births in 1997, considerably higher than the national average of 3.5. The UP maternal mortality rate was estimated at 707 deaths per 100,000 live births in 1997, compared to 408 in India as a whole. However, recent trends in demographic and health indicators for women are encouraging. According to results of the National Family Health Survey (NFHS-2) in 1998-99, fertility rates have been declining and contraceptive prevalence is slowly on the rise, although sterilization still accounts for three-quarters of contraceptive use (sterilization is not useful for birth spacing) (IIPS, 2000).

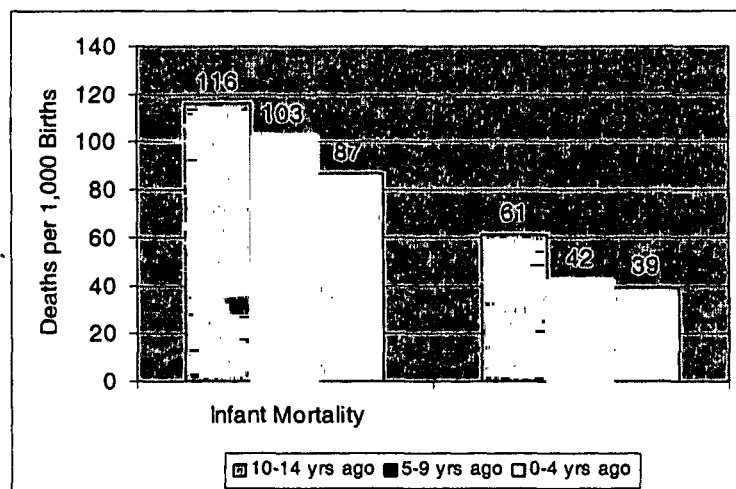
Figure 1.5 Health Indicators by State, 1998-99



Source: NFHS-2 (1998-99), IIPS, 2000.

1.75 The health status of children is a particular concern. The Office of the Registrar General (ORG) estimates that infant mortality in the state was 85 deaths per 1,000 births in 1997, compared with an estimated national average of 71 per 1,000 live births. Estimates from NFHS-2 are similar, and suggest slow but steady progress over cohort groups (Figure 1.6). (IIPS, 2000) The percentage of children without any immunizations dropped from 43 percent (1992-93) to 30 percent (1998-99), although there was very little improvement in the percentage of children who were fully vaccinated (20 percent in NFHS-1, 21 percent in NFHS-2). Stunting¹³ (low height-for-age) was prevalent; in 1998-99, 55.5 percent of children were stunted in UP as compared to 45.5 percent nationwide, with only modest improvements over the decade.

Figure 1.6 Infant and Child Mortality by Time Period



Source: IIPS, 2000.

Vulnerability, Powerlessness, Exclusion, Social Identity

1.76 Just as the reality of poverty goes beyond material deprivation, it also encompasses more than shortcomings in human development. The poor -- in Uttar Pradesh as elsewhere -- are highly vulnerable. Often voiceless and powerless, they lack access to and influence over the institutions of the state. Moreover, their low-caste status and gender operate as social barriers that block or exclude them from opportunity. To describe their social situation, this report draws on a substantial body of work on Indian village studies, of which a good overview is provided by Jayaram and Lanjouw, 1999; Saxena and Srivastava, 1995; Lieten, 2000; as well as on three recent studies (Box 1.2).

1.77 **Vulnerability** to shocks is a fact of life for the poor. They are distressed not only by current low levels of resources and incomes, but also by the possibility of falling into deeper poverty and destitution. Once destitute, it can be difficult to recover. Poverty, as seen by the poor, is a precarious condition; it can easily become worse and only by struggle, hard work, and good fortune does it become better. The poor are at risk because they lack the income, the assets, and the social ties that protect the better-off from the impact of unexpected set-backs. Idiosyncratic shocks are common, such as an illness that requires expensive treatment, the temporary or permanent disability of a breadwinner, or a natural disaster can obliterate a poor household's small savings. In both urban and rural consultations, death, disability, and disease were cited frequently as factors linked to vulnerability. Widowhood or, more frequently, desertion by a spouse, often led to destitution in poor and low-caste women (Unni, 1998; Dreze, 1990).

¹³ Percentage below 2 standard deviations (-2 SD) from the International Reference Population median.

Economy-wide or systemic shocks also are common. Crops may fail due to poor weather conditions, agricultural wages move with the vagaries of the local economy, and land may become eroded or salinized due to flooding or inadequate supplies of ground water. If shocks are severe, repeated, or long-lasting, a household may be forced to sell or pawn its few productive assets and, in the worse cases, may fall into chronic lifelong debt.

Box 1.2 Vulnerability to Shocks

In the recent qualitative study of urban poverty in UP the poorest urbanites were found very often to dwell on the banks of rivers or drainage canals that are prone to flooding during the monsoon season, when entire communities may then find their homes under water. In one area of Lucknow, informal settlements were found on the banks of canals (*nallas*) that drain waste water, including sewage, from the city and that also serve as a toilet to the settlements. These *nallas* normally flood their banks once a year, leaving homes knee-deep in untreated sewage. Having nowhere else to go, many residents attempt to remain in their huts even under flooded conditions. Not only are their homesteads and possessions damaged or lost to the rising waters, but their health as well is often severely affected. When disease outbreaks such as cholera epidemics follow upon floods, then illness, which is normally an idiosyncratic shock, becomes covariant throughout the community of the deprived. The most vulnerable in these communities become destitute as a result of the cost of curative care for those who fall ill and from the necessity of replacing housing or other essential assets. In many cases, these shocks are regular seasonal events in the lives of the poor. When they are, these recurrent shocks prevent them from escaping the precarious shantytown environment and may reduce them to begging or other coping strategies of the truly destitute.

Source: field visits, Study of Urban Poverty in Uttar Pradesh, 2000.

1.78 The perception of risk and the concomitant fear of destitution can exert a strong influence on behavior of both the poor and the near-poor. It is a truism that a potential loss is most threatening to a household with little saved to cushion against shocks. Examples of extreme deprivation, hunger, and hopelessness are evident throughout the society; the risks are real, not imagined. Even when potential returns are significant, the poor may shun uncertain prospects such as leasing in cultivable land, purchasing a dairy cow, diversifying crops, or abandoning a subsistence-level livelihood in order to seek better employment, if the possibility of failure would exhaust their reserves or draw them into debt. The end result is that many of the poor limit themselves to static, unproductive, and low-paying economic activities to preserve security of livelihood, even at the cost of potential improvements in economic status, perpetuating the vicious cycle of poverty

1.79 **Voice and Power.** Generally deprived of political influence, the poor lack the leverage to ensure that state institutions serve them fairly and thus often lack access to public facilities or receive goods of inferior quality. While Indian citizens of all castes and income levels frequently have to deal with an unresponsive bureaucracy, the burden of non-responsiveness falls particularly upon the poor. For example, studies by India's Public Affairs Center (Sekhar and Balakrishnan, 1999) indicate that the wealthy and middle classes are more likely to be able to resolve their complaints and at lower cost. In a study from Delhi, on average, 27% of ordinary households who complained about a particular government service won redress with an average number of four required visits. In contrast, only 6% of slum dwellers were able to get their problems solved, and an average slum dweller has to make six visits in order to do so. Corruption is often a highly regressive tax and the poor pay more of their incomes proportionately – and at times absolutely – in bribes than do the wealthy or middle class. In the Delhi example, the average bribe paid by ordinary households as Rs. 254; the average bribe paid in the slums was Rs. 337.

1.80 Although poor households are at a disadvantage when they confront the bureaucracy on an individual basis, urban slum dwellers interviewed in the course of the study of Urban Poverty in Uttar Pradesh reported some degree of success when community members organized to resist slum clearance efforts by city officials.

Box 1.3 Political Organization and the Urban Poor: Many Voices are Better Than One

Raidas Vihar, in Jajmau, Kanpur, is an informal settlement of low-caste Hindus and Muslims whose existence is not formally recognized by government even though it has been in existence for about 20 years. Its founding family, whose head was employed in an adjacent tannery, discovered that the land around the tannery was unoccupied and set up the first of many shanties on the site. In the time since, the smell and stigma of the tannery has discouraged any but unskilled tannery workers from attempting to utilize the site. The city government allotted the land to a private owner, but he never appeared to claim it. The settlement continued undisturbed until 1992, when the Kanpur Development Authority (KDA) sent a contingent of bulldozers to obliterate it. For three days, the bulldozers destroyed homes, shops and infrastructure, including a water point installed by an international NGO. During this time, the community quickly organized a political action group which they called the "Raidas Vihar Dalit and Minority Committee." The Committee appealed to local politicians for assistance, and they received it from a former member of Parliament from the Communist Party. With his help, they were able to get a "stay" order from the courts. Although the local association has not been successful in gaining formal recognition for their community, they have at least been able to prevent its eradication.

Source: field visits, Study of Urban Poverty in Uttar Pradesh, 2000.

1.81 Stories such as the above suggest that, even though their accomplishments may be limited, the poor have a better chance of being heard if they work together, e.g. in the formation of community organizations for political action. In most cases, a key feature of these organizations is the presence of a strong community leader who possesses contacts and information sources outside the slum. In one case, the informal leader of a slum community served as a political middle-man who channeled the requests of slum dwellers to a local politician in return for a promise of the voting support of the entire community. Cases such as this illustrate a certain degree of political sophistication among urban poor communities. It is questionable, however, whether significant political power can be won through collective action by slum residents. According to the recent study, the political successes of these communities were limited to small status quo goals such as preventing the city from destroying the settlement. The study found very few cases in which political activity had won legal recognition or improved services for the slum. What is more, there is no evidence that UP's rural poor have developed any comparable political awareness or strategies.

1.82 **Social identity** – in particular, caste status and gender – is linked to poverty in a number of ways. Deep and continuing social inequities mark many facets of the society. Individuals with low-caste status are far more likely to be employed as low-paid, low-status agriculture laborers, are often illiterate, and live in poorly constructed houses with limited access to water and sanitation. They are also more likely to suffer job discrimination and research suggests that they earn less at equal levels of education. Their social identity throws up particular barriers to their economic and social mobility, barriers that must be recognized in designing effective policy and program interventions. Women also suffer various forms of social and economic discrimination. Questions of exclusion and social identity are addressed in Chapter 2.

1.83 **Destitution.** A small but important subset of the poor are the truly destitute, and the fear of joining their ranks, from which there is often no escape, colors the thinking and the actions of the poor and non-poor alike. Consultations with poor households in Eastern and Southern UP frequently identified the poorest of the poor as those who had suffered idiosyncratic shocks such as long-term and costly illnesses; loss of a breadwinner through death, desertion, alcohol or substance abuse; or a loss of assets through fire, theft, death of livestock, or other such personal tragedies that had permanently undermined their physical or human resource base (Kozel and Parker, 1999, UP/Bihar Poverty Study). The destitute poor usually have no income source other than low-wage, intermittently available casual labor or, in the worst case, foraging and begging. With rare exceptions, destitute households have fewer and often very weak ties of mutual assistance and support than their wealthier counterparts. They receive less support

from family and form fewer relationships based on mutual assistance, in large part because their needs far outweigh their ability to reciprocate. Their lack of formal and informal safety nets likely contributed to their becoming destitute; and once they are destitute, remaining support systems crumble around them.

1.84 Poor women, particularly those with low-caste status, face higher risks of destitution. Women in rural UP often marry young to older men and consequently face a high probability of early widowhood; in some cases they are forced to become the sole income earner in a household with young children. In other cases, women become household heads when they are deserted or when their husbands are disabled; they face a particularly high risk of destitution because they often do not possess the training and skills required to compete for stable, salaried employment. (Unni, 1998; Dreze, 1990; Dreze and Srinivasan, 1995). Many are reduced to foraging or begging as their primary means of livelihood. In addition, violence, particularly domestic violence directed against women, is pervasive but rarely discussed in public. Concerns about societal as well as domestic violence were voiced by many of the women interviewed in the qualitative component of the UP/Bihar Poverty Study.

Box 1.4 Rural Destitution

Savita Devi, a 70-year-old widow, married at age 8, lives in a rough, thatch-roofed house with her son and daughter. They are *Mushhars*, a low caste that Savita says is demarcated by "poverty, black hair and black skin". Her family has been decimated by leprosy – she lost two children at an early age due to the disease, and her surviving son and daughter are infected as well. Nonetheless, the family survives on their meager earnings and occasional receipts from her old age pension. None of her children is educated and none currently receives medical care from the public health system, despite their serious illness. Many years ago, the family borrowed money for medical treatment from a local landlord; Savita did not pay interest on the loan and worked in the landlord's fields in order to repay it. She has no significant burden of debt and says that no one is willing to lend to them in any case. The family has never received a government loan and is not aware of any government program in the village except the PDS where they purchase foodgrains on the rare occasions when they have sufficient money to purchase their full allotment. Savita and her two children are caught up in a struggle for sheer survival.

Source: Field visits, UP/Bihar Poverty Study, 1998.

1.85 **Heterogeneity of the Poor.** One fact that emerges strongly from discussions of the multidimensionality of poverty is that the poor are themselves a very heterogeneous group. The various income and non-income dimensions of poverty are often self-reinforcing. A disproportionate number of the very poor and destitute are in female-headed households, where gender discrimination seals off many occupations or opportunities to participate equally in political and economic life. Lower caste individuals often face discrimination in hiring; added incentives may be necessary to encourage parents from poor, low-caste households to send their children to school. Moreover, different types of poor people face different constraints and opportunities. Chapter 2 looks in greater detail at heterogeneity including policy and program implications.

1.86 Many of the issues discussed above are illustrated in the history of Palanpur, a small Indian village in Moradabad District, UP.

Box 1.5 Palanpur Village: Paradoxes of Rural Development

A small village of about 200 households, Palanpur is located on the Gangetic plain in Moradabad District, western Uttar Pradesh. Little differentiates it from other villages in this densely populated region of north India or, indeed, from the half million other similar rural settlements in India.

Palanpur, however, is unusual in that it has been the subject of close study for decades with researchers visiting many times since 1957, including five prolonged sojourns – two of them lasting a year or more. This scrutiny has yielded a wealth of information about the village's society and economy and their evolution over time. The highly detailed quantitative and qualitative information that has been collected and analyzed has produced important insights into the experience of development in rural north India.

In the years since 1957, three major forces of change, at least partly beyond the villagers' control, have shaped the evolution of the village economy. First, population growth has exerted relentless pressure. With fixed village land endowments, it has been imperative to find ways to raise agricultural productivity and increase non-agricultural incomes, even if only to maintain per capita income levels. In this sense the village has had to run just to stand still. Second, the "Green Revolution" of the 1960s and 70s has brought agricultural intensification to Palanpur, resulting in a dramatic expansion of irrigation, the use of high-yielding seed varieties and chemical fertilizers and a consequent impressive rise in yields. Third, the broader rural economy of which Palanpur is part, has increasingly diversified into non-agricultural activities.

Surveying the various dimensions of development in Palanpur yields a somewhat mixed assessment. Some signs of progress are clearly discernible. Over this period, per capita incomes in the village have not only been maintained, but have grown at around 2% per year in real terms. This modest growth performance has contributed to a clear decline in absolute poverty from around 50% in the late 1950s to around 25% by the early 1980s. Villagers today own far more consumer durables and are better housed and dressed than they were in the early years of the Palanpur study. They are also better nourished. An agricultural laborer in the mid 1990s could expect to earn the equivalent of 8kgs of wheat per day, compared to 2.5 in 1957/58.

But there are also reasons for concern. Income inequality has remained very high -- as high as for India as a whole. Moreover, the trends in wealth inequality suggest that the process of economic growth may have been accompanied by a worsening of net wealth inequality, which takes into consideration both household asset holdings as well as liabilities, such as debt outstanding to credit institutions. Looking beyond the economic dimension yields an even more sobering picture. Literacy rates have hardly improved from their extremely low levels in the 1950s. Even in 1993, only a third of males in Palanpur and fewer than one female in ten were literate. Access to health services remains highly inadequate, with the poorest villagers in particular being unable to afford or gain access to even minimal health care. While in some respects caste-based restrictions on social mobility in Palanpur have undergone considerable blurring, it is striking that the poorest caste in Palanpur continues to occupy a marginal, excluded, position in village society. The vulnerable position of women in Palanpur has not undergone any transformation; the lack of any rise in the female-male ratio of 0.86 is a particularly disturbing dimension of persisting gender inequality.

Palanpur's particular development path also points to worrisome trends in village organization and institutions. The stratification of society suggested by the persistence (and possible worsening) of inequality in Palanpur has been associated with widespread capture and misappropriation by village elites of public programs and resources as well as government efforts to strengthen local decision-making powers. In addition, important village institutions such as the tenancy and credit markets have evolved in directions which suggest that they are now less accessible to the poor than before. Due to the intensification of agriculture, poor landless households who lack complementary inputs (such as draught animals) find themselves less able to lease-in land than in the 1950s and 60s. Despite the expansion of cheap credit from public sector financial institutions into rural areas, the poor in Palanpur are at best rationed and not rarely defrauded by officials in these institutions. Moreover and somewhat paradoxically, they are currently facing higher real interest rates from village moneylenders than in the past.

The experience of development in Palanpur demonstrates the enormous challenges faced by policy makers seeking to improve well-being in India. Development occurs along many fronts at the same time, and Palanpur shows that it is perfectly possible to advance on some while stagnating or even retreating on others. A broader appreciation of the full meaning of development is an unmistakable pre-requisite in the quest to reduce poverty and secure improvements in rural livelihoods.

Source: Lanjouw, P. and N. Stern (1998).

Chapter 2

PROFILE OF THE POOR: POVERTY OF RESOURCES, ACCESS, AND RELATIONSHIPS

A. Introduction

2.1 Poverty is a result of low levels of assets, coupled with low returns. In combating poverty, the state will need to build purposefully on all of its assets, those in public hands and those in the private sector, not least the real and potential assets of the poor themselves. Almost by definition, the poor have very few assets beyond their own labor, inevitably expended in tedious, back-breaking, low-paid work. Usually with too little or no land, a critical material asset, they also tend to lack education, skills and good health – they suffer from *poverty of private resources*. In addition, the poor have limited access to such public assets as community infrastructure, basic services and government programs – they suffer from *poverty of access to public goods and services*. Finally, they are often deprived of informal systems of support and social and political capital – they experience *poverty of social relationships*. This chapter presents a profile of poverty in terms of deficiencies in private assets, public assets, and social capital. To combat poverty, policy makers must take all these deficiencies into account.

2.2 While economic growth is a powerful force for poverty reduction, few, if any, modern societies deliver equality of opportunity to all their citizens. Evidence from around the world suggests that the rising tide of economic growth does not lift all boats equally, and there are forces at work that limit opportunities for some individuals and groups. In varying degrees, ranging from indigenous populations in Bolivia and Guatemala to ethnic minorities in Sri Lanka and Vietnam -- even those in such countries as Australia, Russia and the United States -- all experience some form of social discrimination that impacts on economic well-being. So, throughout the world --again in varying degrees -- do women. In Uttar Pradesh, exclusion based on gender and social identity is not only deeply ingrained; it is also a powerful contributing factor to the persistence of poverty. This chapter looks at the role played by gender and caste in limiting or even barring opportunities to escape poverty. Additionally, in the same context, the chapter briefly discusses child labor.

2.3 The poor are a highly heterogeneous group. Deprivations come in many forms, and not all poor households are deprived in the same ways. Poor households differ with respect to the depth of poverty they experience, the material, human, and social resources they can marshal, the opportunities offered by their environment, and the strategies they employ in their struggles against poverty. Efforts to combat poverty will be more effective if these differences are recognized in the design of policies and programs.

B. Voices of the Poor

2.4 The poverty profile and diagnostic work presented in this paper draws not only on conventional quantitative data, but also is informed by consultations carried out in poor communities (Chapter 1). The consultations enrich a conventional profile by providing information on the how the poor themselves define their situation, their priorities, and the constraints and opportunities they face. Poor men and women give voice and context to the story that emerges from the statistical analysis – they highlight concerns about lack of land, security of tenure, lack of skills and good education, lack of social networks and lack of access to stable employment. As well they speak of poverty in terms of risks -- linked to health shocks, debt, and desertion. The importance of social identity is sharply evident: in rural areas, low caste status was cited as one of the strongest indicators of poverty.

Box 2.1 People's Perceptions of Poverty in UP

Discussions were held with people in UP, both poor and non-poor, on their perceptions of poverty and the factors that contribute to upward or downward mobility. Rural respondents cited a range of factors:

- Landlessness or possession of only poor quality, non-irrigated lands,
- Dependency on intermittent casual wage labor, especially in the agriculture sector, dependency on foraging or begging;
- Lack of basic literacy, job skills,
- Limited access to social networks, particularly networks that extend outside the village and help residents find better jobs, particularly jobs in the non-farm sector,
- Chronic indebtedness,
- Desertion, widows, or women living alone without an adult male,
- A high dependency ratio, many daughters, also lack of sons,
- Ill health or disability, particularly of the primary breadwinner,
- Poor quality mud and thatch housing, insecurity of tenure
- Social or caste identity: in several villages, low-caste informants assumed all high-caste households to be rich, while they carefully ranked lower caste households by various economic criteria. Among the higher castes, low caste status was assumed to be a strong indicator of poverty.

Less tangible factors such as dignity and autonomy were often mentioned. One group of low-caste informants reported that they had moved from the central village, where they had lived on lands belonging to wealthy traditional patrons, to marginal and non-productive lands on the village periphery. Although they had gained nothing economically by the move and may even have lost an informal safety net, they felt they were better off by virtue of having escaped a demeaning, demoralizing, and potentially threatening relationship of dependency.

Urban poverty has a distinctly different face than rural poverty. Many of the urban poor included in the consultations were first generation migrants, and the majority felt that migration had improved their economic position. In urban areas, unlike rural villages, employment opportunities – if only scavenging, petty hawking, and begging – are available year round, typically at higher wages than paid in rural areas. Furthermore, many of the urban poor said they preferred working in urban areas not only because they earned higher and more regular wages but also because they were “free” (free of the pressure exerted by a powerful patron employer). Caste was far less frequently mentioned as a barrier to economic mobility. Many also complained about lack of job security and most aspired to more permanent salaried jobs.

Additional factors cited include:

- Very poor housing, lack of secure tenure (extremely important in the eyes of the urban poor), polluted and inadequate water and sanitation services,
- Lack of appropriate job skills and connections – surprisingly, few of the poor in illegal settlements cited formal education as an important factor in determining access to employment, although virtually all respondents felt that basic literacy, including for girls, was important,
- The household's asset base at the time of migration was frequently mentioned; households that brought start-up money or had job connections were typically better off than households that come to the city with nothing,
- More than in rural areas, behavioral factors were cited frequently as critical for upward mobility. The poor were considered “less industrious”, less hard working, more prone to alcohol or drug abuse.
- High dependency ratios, particularly young children, widows without sons or with young children,
- Serious illnesses (TB, cancer, mental illness) disability of working aged adults,

Source: Field notes, UP/Bihar Rural Poverty Study, 1998; Parker, Kukreja, and Kozel, 2001

C. Private, Public, and Social Assets

Private Assets

2.5 *Labor*, the most important asset of the poor, provides the overwhelming majority of poor people in UP with only low-skill, low-paid jobs with no permanent tenure. In consultations with the poor done in preparation for this report, better jobs – especially jobs outside the agriculture sector and with security of tenure -- were cited repeatedly as the most important priority for urban and rural poor households alike. The reality, however, is that agricultural employment – rising in recent years – occupies three-quarters of

the labor force, and a high proportion of the rural poor work as casual laborers – the lowest paid and lowest status occupation in the state.

2.6 As in many other parts of India, casualization of the workforce is on the rise in UP (Srivastava and Lieten, 1999). In 1993-94, nearly two-thirds of rural households who were dependent on earnings from casual labor in the agriculture sector were below the poverty line, as were over half of the households dependent on casual labor earnings outside the agriculture sector (Table 2.1). For these households, poverty levels remained virtually unchanged from the mid-eighties to the mid-nineties (1983 to 1993-94), a period when, in contrast, poverty fell sharply for farm households, self-employed households in the rural non-farm sector and for households with salaried employment. Some improvement was seen in the latter half of the 1990s; drawing on data from the Employment Schedule in the NSS 55th Round, there is evidence of some diversification out of the agriculture sector (World Bank, 2002a). However rural poverty is becoming increasingly concentrated among households whose primary source of income is casual laborer, both in agriculture as well as the rural non-farm sector.

2.7 The urban poor are more likely to be involved in casual wage labor and the informal sector, and such households continue to evidence high levels of poverty. Eleven percent are primarily dependent on casual work, and two-thirds of these households live below the poverty line. In contrast, the urban self-employed are evidencing steady gains in terms of rising incomes and falling poverty.

Table 2.1 Poverty Incidence and Shares by Occupation of Household Head

Rural Areas Main Occupation	Poverty Incidence	Percentage of:		Urban Areas Main Occupation	Poverty Incidence	Percentage of:	
		Popl'n	Poor			Popl'n	Poor
1983							
S.E non-agriculture	52.3	13	14	Self-employed	51.6	52	60
Agriculture labor	66.3	16	22				
Other labor	48.2	4	4				
S.E Agriculture	43.3	61	55	Other	37.1	48	40
Other	30.4	7	4				
Overall	47.4	100	100	Overall	44.7	100	100
1993-94							
S.E non-agriculture	44.3	13	14	Self-employed	39.9	53	61
Agriculture labor	63.5	18	26	Reg. wage/salary	17.4	31	16
Other labor	52.3	5	6	Casual labor	66.7	11	20
S.E Agriculture	36.4	58	50	Other	25.8	5	3
Other	25.9	6	4				
Overall	42.3	100	100	Overall	35.0	100	100
1999-00							
S.E non-agriculture	33.7	16	17	Self-employed	34.3	50	56
Agriculture labor	50.9	18	30	Reg. wage/salary	14.4	31	15
Other labor	36.9	6	7	Casual labor	67.3	11	24
S.E Agriculture	24.2	52	40	Other	20.0	8	5
Other	21.3	9	6				
Overall	31.1	100	100	Overall	30.7	100	100

S.E Self-employed

Source: 1983, 1993-94, and 1999-00 NSS central sample.

2.8 After labor, *land* is the most crucial asset for the rural poor; poverty falls as land ownership rises. Many of the poorest households, however, own little or no land, and land holdings in UP are becoming more fragmented over time, with implications for the structure of rural poverty (Table 2.2). In 1983, 27 percent of the population (30 percent of the rural poor) owned less than a half hectare of land. By 1993-94, the number of households owning less than a half hectare had risen to 43 percent and accounted for 54 percent of the rural poor. Although rural poverty levels fell between 1993-94 and 1999-00, the rate of

progress was slower among for those with little land. By 1999-00 nearly half of the rural population (62 percent of the poor) owned less than a half hectare of land, far less than needed to provide for a family's subsistence needs. The growing concentration of poverty among landless and near-landless households suggests that either the rural non-farm sector has failed to provide employment or that the poor lack the education or skills to take advantage of the opportunities available. Both statements are probably true.

2.9 Land is more than a material asset in UP; rural power is traditionally associated with land ownership. Rural landlords, controlling the material lives of those working on their land, have used that dependency to maintain economic, social and political dominance. While land ownership is becoming less linked to power, rural elites continue to have influence in many spheres.

Table 2.2 Rural Poverty Incidence and Shares by Land Ownership

1983 Amt. of land owned	Poverty Incidence	Percentage of:		1993-94 Amt. of land owned	Poverty Incidence	Percentage of:	
		Popl'n	Poor			Popl'n	Poor
No land owned	37.6	3	2	No land owned	51.5	6	8
0 – 0.4 hectares	57.4	24	28	0 – 0.4 hectares	52.7	37	46
0.4 – 1 hectares	58.5	13	15	0.4 – 1 hectares	41.5	25	24
1 – 2 hectares	51.7	18	20	1 – 2 hectares	34.6	17	14
2 – 4 hectares	45.6	20	19	2 – 4 hectares	24.8	10	6
4+ hectares	30.7	23	15	4+ hectares	19.8	5	2
<i>Overall</i>	<i>47.5</i>	<i>100</i>	<i>100</i>	<i>Overall</i>	<i>42.4</i>	<i>100</i>	<i>100</i>

1999-00 Amt. of land owned	Poverty Incidence	Percentage of:	
		Popl'n	Poor
No land owned	28.4	4	4
0 – 0.4 hectares	41.1	44	58
0.4 – 1 hectares	28.6	26	24
1 – 2 hectares	22.0	14	10
2 – 4 hectares	11.6	8	3
4+ hectares	6.8	3	1
<i>Overall</i>	<i>31.0</i>	<i>100</i>	<i>100</i>

Source: 1983, 1993-94, and 1999-00 NSS.

2.10 *Human capital* is also an important asset for the poor. While land is difficult to redistribute, *education* is provided by the public sector and should be universally available in Uttar Pradesh. Education for All is an important national as well as state-level goal. Despite the avowed focus of public sector spending, UP has the highest private school enrollments of any state in India – half the children in urban areas attend private unaided primary schools, as do an estimated 20 percent in rural areas (NSS 52nd Round, 1995-96). Schooling has a potentially powerful role in promoting economic mobility and reducing poverty, and the poor will not benefit from reform-led growth unless they have the skills and education to do so. In many regions of Uttar Pradesh, lack of educational opportunity deepens a vicious cycle of poverty and illiteracy.

2.11 Poverty is strongly associated with levels of formal education, most strikingly in urban areas but in rural areas as well; over one-half of urban households headed by illiterates are poor, in contrast to less than 10 percent of households whose heads have completed tertiary education (Table 2.3). The link between poverty outcomes and education is less sharp in rural areas, in large part reflecting differences in economic opportunities and returns. While more research remains to be done, these results suggest that a little education does help to open opportunities in rural areas. In contrast, because of a threshold effect, higher levels of education are needed to ensure access to better paying jobs in the urban sector.

Table 2.3 Poverty Incidence and Shares by Level of Education of the Household Head

1993-94					
Highest Educational Attainment of Head	Incidence of Poverty			Percentage of:	
	Urban	Rural	Overall	Population	Poor
Not literate	58.6	50.6	51.6	53	66
Less than Primary	43.1	36.7	37.9	11	11
Completed Primary	46.3	33.5	35.9	10	9
Completed Middle	26.5	32.3	31.0	10	7
Completed Secondary	18.9	25.6	23.3	6	4
Completed Higher level	6.8	19.6	13.4	10	3
<i>Overall</i>	<i>35.0</i>	<i>42.4</i>	<i>40.9</i>	<i>100</i>	<i>100</i>

1999-00					
Highest Educational Attainment of Head	Incidence of Poverty			Percentage of:	
	Urban	Rural	Overall	Population	Poor
Not literate	50.3	37.5	39.2	48	61
Less than Primary	42.8	33.2	35.1	10	12
Completed Primary	30.2	26.3	27.1	10	9
Completed Middle	22.4	24.1	23.8	12	9
Completed Secondary	22.8	19.1	20.2	8	5
Completed Higher level	9.0	14.0	11.9	12	4
<i>Overall</i>	<i>30.7</i>	<i>31.1</i>	<i>31.0</i>	<i>100</i>	<i>100</i>

Note: Less than primary includes those who are literate, but have no formal schooling

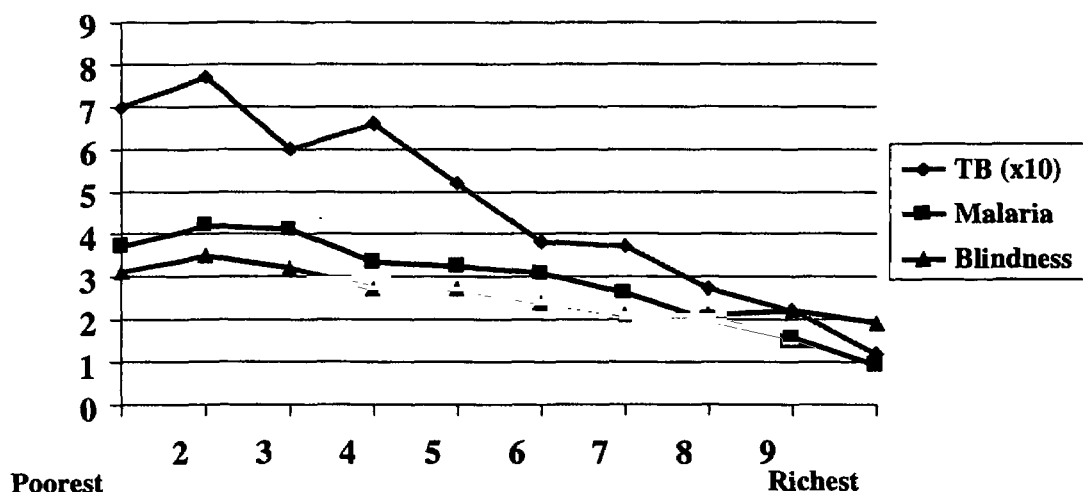
Source: 1993-94, 1999-00 NSS

2.12 Consultations carried out in poor, unrecognized settlements, including focus groups with urban youths, help to explain these findings. While many young people were literate, surprisingly few aspired to more education, and many did not see how having more education would help them get better jobs. Rather, respondents stressed the importance of work skills, informal training, and personal contacts. It was not that education did not matter, but rather that the kinds of jobs open to young people living in very poor and marginalized urban settings did not require or reward higher levels of education. Poor parents in some of the rural consultations voiced similar views.

2.13 An individual attribute but also a public concern, *good health* is another asset that can be hard for the poor to attain or maintain. Often linked to inadequate calories and malnutrition, poverty increases the risk of getting sick and of exacerbating illness. For example, lower-income settlements in urban areas are often clustered in waterlogged, malarial zones or in areas where poor sanitation makes exposure to waste water and raw sewage all but inevitable. A recent study in a very poor area of eastern UP (Parker, 1999) found that low-income informants know little of disease etiology and prevention, even by developing-country standards. Health services need to take into account the likelihood among the poor of increased transmission of infectious diseases and disrupted medical care. The cost of treating major illnesses is one of the shocks that plunges many into poverty.

2.14 The higher risks associated with poverty are reflected in the gap between health status indicators for the rich and poor in the nation as a whole. Women and children are particularly at risk. Survey data from the first National Family Health Survey (NFHS-1) in 1992-93 indicates that infant and child mortality rates among the poorest 20 percent of the Indian population are 2½ times higher than among the wealthiest 20 percent. Moreover, the incidence of disease and debilitating health conditions is sharply higher among poorer segments of the population (Figure 2.1).

Figure 2.1 All-India Incidence of Disease by Wealth, 1992-93



Source: NFHS-1, 1992-93

2.15 On average, health indicators in UP are well below all-India levels. Drawing on the National Family Health Survey (NFHS-1, 1992-93), children's health is noticeably affected by poverty (Table 2.4) to the point that stunting is widespread.¹ Unlike all-India estimates, children from all economic strata are likely to be stunted, a reflection of a poor environment (e.g. clean air and water, sanitation) as well as the inadequacy of health services for rich and poor alike. The immunization status of young children is also low compared to all-India levels, and children from the poorest households are particularly under-served. An estimated 60 percent of children in the poorest 40 percent of the population had never been immunized in UP, compared to 45 percent at the all-India level. While NFHS-2 results have recently been released for UP, wealth-based tabulations are not yet available.

Table 2.4 Comparison of Health Status of Children In Uttar Pradesh, by Quintile

	Poorest 20%	Quintile 2	Quintile 3	Quintile 4	Wealthiest 20%	Total
UP: Stunting	61.5	65.0	58.7	61.6	59.3	61.7
All India: Stunting	55.6	54.0	48.6	43.4	30.9	47.1
UP: No Immunizations	56.9	60.3	44.3	47.4	33.4	48.5
All India: No Immunizations	48.4	40.8	27.5	18.0	7.9	30.0
UP: All Immunizations	9.8	10.8	17.5	17.3	27.9	16.6
All India: All Immunizations	17.1	21.7	34.7	48.2	65.0	35.4

Source: NFHS-1, 1992-93, World Bank Tabulations.

Public Goods and Services

2.16 Government policy operates to reduce poverty both indirectly by enhancing growth and directly through the delivery of basic services and effective safety-net and antipoverty programs. Spending on roads, agriculture research, and education have been shown to make particularly strong impacts on rural productivity and poverty reduction in India. Power and irrigation are likewise important for enhancing rural productivity, while health and rural development (primarily antipoverty programs) are designed to

¹ Stunting is often considered an indicator of longer term poor nutrition status.

address poverty directly (Fan, Hazell, Thorat, 2000). There is widespread evidence that local public goods – e.g. roads, communication systems, irrigation, schools and health facilities – exert a strong influence on returns to private capital (For agriculture, see Schiff and Montenegro, 1997; Dev and Ranade, 1998; for health outcomes, see Hughes and Dunleavy, 2000; Jalan and Ravallion, 2001). For example, while agriculture terms-of-trade have improved in the 1990s, there have not resulted in improvements in productivity or levels of output, nor lower rates of poverty. Non-price incentives, such as under-investment in infrastructure and problems linked to the business environment, are in large part responsible for the lagging response in agriculture.

2.17 Compared to better performing states, levels of infrastructure development are low in Uttar Pradesh. Per capita consumption of electricity, for example, was only 194 kWh in UP but 332 kWh per capita in Andhra Pradesh and 338 kWh in Karnataka. As of March, 1999, UP had 1.21 telecom connections per 100 inhabitants; Andhra Pradesh had 2.36; Karnataka, 3.25 (Kurian, 2000). Inadequate infrastructure in general, and, in particular, the decreasing availability and reliability of power supply and water for irrigation have lowered productivity in agriculture and industry, and less poverty reduction. In addition, government spending on infrastructure, social sectors, and rural development has been sluggish in recent years, and O&M significantly underfunded. Not only are spending levels low; weak institutions reduce the efficiency of spending and produce outputs – as measured in delivery of services – that are themselves poor (Chapter 5). Higher spending does not necessarily mean better services.

2.18 Whether underfunded or underserved, the regions of the state with high concentrations of poor people tend to have lower endowments of infrastructure and other basic services. The UP/Bihar Poverty Study, for instance, measured community infrastructure as well as geographic access to such basic facilities and services as electricity, drinking water, public schools, public and private health care providers, the Anganwadi Center (Integrated Child Development Services), and the PDS fair price shop. Even within the village, poor and socially disadvantaged households tend to live further from basic services such as hand pumps and public wells, sanitation systems, public health facilities and schools, the PDS ration shop, and public transportation facilities. Few have piped water or another source of drinking water on their premises, and, although the majority of villages in India are electrified, even fewer are connected to the electricity grid (Box 2.2).

Box 2.2 Access to Facilities in Rural Uttar Pradesh

A study of poverty in four districts in Eastern and Southern UP highlights the gap in access between better-off and less well-off households:

Services Available in the Dwelling Unit	Poorest 20%	Wealthiest 20%
Electricity	4%	28%
Drinking Water	25%	66%
Services Available in the Hamlet (only if available in revenue village)	Poorest 20%	Wealthiest 20%
Primary School	59%	61%
Middle School	6%	83%
Anganwadi Center	38%	60%
PDS Fair Price Shop	43%	57%

Source: UP/Bihar Poverty Study, survey tabulations.

2.19 Estimates from the NSS 55th Round highlight continuing inequities across the state between access of the poorest and wealthiest households² to basic community services and housing amenities (Table 2.5). In rural areas, the poorest households are far more likely to live in housing made of temporary materials, and most lack access to electricity, water, and sanitation. Disparities also are

² Ranked by per-capita expenditure levels

evident in UP's cities and towns: many of the poor still live in temporary housing and over 40 percent do not have access to electricity, even for basic lighting. Many of the poorest urban households live in "unrecognized" settlements, without access to public services or facilities of any kind (see Box 2.4 below).

**Table 2.5 Housing and Access to Basic Services, NSS 55th Round (1999-00)
Urban and Rural Areas (Percent)**

Type of Service	Rural Areas			Urban Areas		
	Poorest 20%	Wealthiest 20%	Total	Poorest 20%	Wealthiest 20%	Total
Katcha Dwelling Unit	60	25	40	19	3	9
Electricity Connection	15	44	28	64	94	84
Water tap in Dwelling	5	17	11	36	68	53
Latrine in Dwelling	9	31	19	71	94	84

Source: NSS 55th Round state-sample, tabulations from the Poverty Module.

2.20 Even when a facility was physically available (e.g. a public tap or well), many of the poor (especially the low-caste poor) were either discouraged or actively prevented from using it. Social access is as important in many parts of rural UP as physical access.

Box 2.3 Signs of Transition

Location matters a great deal within a rural village, as does security of tenure. Take the example of a group of Kols (Scheduled castes) living in a village in Banda District. Pre-independence era, the Kols were lived in the main village on land owned by wealthy high-caste families, mostly from the Thakur caste. During that time, the Kols deeply impoverished and most were in debt bondage to their Thakur landlords and suffered daily insults and humiliations when necessity forced them to fetch water from Thakur wells or to defecate in fields owned by Thakurs. After liberation, debt bondage was eliminated and the Kols were free. The Thakurs, however, refused to allow the Kols to use wells or build houses unless they agreed to serve Thakur families under a system similar to the old one. The older Kols were ready to agree, but the younger generation threatened to rebel. Faced with the possibility of social unrest, the Pradhan agreed to grant public lands to the Kols for the creation of their own *toia* [settlements or small communities]. These lands were waterlogged and largely unproductive, but they provided homestead plots which allowed most of the Kol families to move out of the control of their former Thakur landlords. Now, the Kol families rely in part on the collection and sale of forest products, and supplement this by undertaking "work for any caste who calls them" at the prevailing wage rate. They now have their own well and are no longer harassed and humiliated when collecting water. Several Kol families remained behind in the Thakur *toia*, but other Kols feel they are poorer than those who have moved. Thakurs interviewed in the same village indicated that in cases of illness or disaster, they provide interest-free loans for Kol families whom they know and trust -- these families, however, are only those who work for them on a continuing basis. Thus, by leaving the Thakurs behind, the Kol households who relocated have lost a source of interest-free help in time of trouble. Most of them find that their gains --in dignity and economic independence --have more than compensated for this loss.

Source: Field visits, UP/Bihar Poverty Study, 1998.

2.21 The urban poor, many of whom live in unrecognized settlements without services of any kind, face similar problems (Box 2.4). In many communities, the biggest drawback is lack of access to clean, drinkable water and sanitary facilities (e.g. public toilets). Many respondents were aware of the role of poor sanitation and contaminated water in causing illness, but few thought they had any control over the situation. Women often complained of having to walk long distances to fetch water from public taps.

Box 2.4 Unrecognized Settlements: The Urban Underclass

Although poverty is the norm in UP's urban slums and informal settlements, the least favorable conditions for economic advancement are found in its "unrecognized" settlements. Most poor urban neighborhoods, or "notified slums," are recognized by local government and receive basic city services including water, sewage processing, garbage removal and, in most cases, electrical connections. The most precarious of the informal settlements, however, are located on land that is either owned by government or by a private individual or organization that has no current interest in using or developing the site. The residents of these neighborhoods, or *bustees*, have no legal right to their home sites, though they have often paid a significant fee to a neighborhood leader for squatting privileges. The urban poverty study team visited an unrecognized settlement in Lucknow that has been in existence for nearly 25 years, but city authorities still record the site as unoccupied land. Located on the banks of a "*nalla*", or drainage ditch, it had no source of clean drinkable water until residents were able to gather the money to tap (illegally) into a city water main and establish a public tap. Now, about 95 families use this one water source, and most of the friction in the community is said to arise over the water queues. There are no latrines; all residents use the canal banks for defecation. There is also no public school in or near the *bustee*, but a NGO has hired a teacher to instruct 20-30 of the children for a few hours a week. In many unrecognized *bustees*, however, none of the children is in school. Their parents recognize that without basic literacy, these children will not be able to break out of deep poverty; but no public schooling is provided for unrecognized settlements and *bustee* residents cannot afford private school fees.

Source: Field visits, Study of Urban Poverty in Uttar Pradesh, 2000.

Social Capital

2.22 A final type of asset in short supply among the poor is *social capital* -- the stock of relationships, networks, and institutions that an individual or household invests in and can call on for assistance and support when needed. Social capital can be utilized in different ways -- it can serve a "protective" function -- for example, rural consultations identified cases in which associations were formed amongst groups of Scheduled Castes for purposes of mutual protection, such as when a group of SC men traveled outside the village in search of employment, or to push authorities and local leaders to grant them the legal rights to which they are entitled. Poor rural women also were found to travel in groups when they went to the forest to collect firewood. Social ties can also be used to secure economic advancement through jobs and loans taken for productive activities, e.g. caste associations supporting their members in obtaining labor contracts or jobs. The poor in UP tended to have less social capital, fewer horizontal ties, and to utilize protective rather than productive forms of social capital.

2.23 Since most such networks are open only to those who have something to contribute, the poor are generally excluded. Participation in a savings or revolving credit association may be beyond the reach of households with limited weekly surplus to add to the collective pot. A farmers' or irrigation society might be a springboard for rural development activities, but it would normally exclude those who are landless -- that is, the poorest households in the village. Occasionally, however, poor individuals have banded together and built their own networks and organizations, often with the help of a local NGO. One example of this is the recent upsurge in savings groups set up for poor women, which are being organized in the context of government programs as well as by non-governmental organizations. Women in the group contribute a very small sum of money on a regular basis; the aggregate savings are eventually deposited in an account in a local bank, which helps to establish a link with formal financial institutions. Women in the group can borrow from the aggregate savings in times of need, and some groups have used the accumulated savings to set up a joint business.

2.24 Based on the qualitative studies done in preparation of this report, poor households rarely have any advantageous ties or contacts outside their own poor neighborhoods. Their social capital, often restricted to patron-client relationships with landowners/employers or short-term assistance to equally poor households in times of need, is rarely of the type that will lift them out of poverty. Even the potentially exploitative linkages are worth maintaining, however, as possible sources of limited assistance

in a short-term crisis (e.g. providing a short-term loan to purchase grains). Moreover, they have limited influence in the political sphere.

2.25 In contrast to the poor, the better-off tend to possess a strong network of high-value ties and contacts that help not only to mitigate risk and improve overall welfare levels but often to enable the better-off to capture more than their fair share of public resources. Higher caste and well-off households, unlike poor and SC/ST households, were found to have useful contacts outside the village as well as within it. Links with political party officials, for example, helped wealthy households to secure recognition of questionable land rights and to ensure that local government-provided community infrastructure improvements would be located in the affluent neighborhoods. Close relations between richer households and both political and administrative arms of government are often used to undermine democratic processes.

Box 2.5 Why Invest in Social Relations?

B** is a large village comprising some 700 households and constitutes a panchayat on its own. Politically and economically the village is dominated by Patidars (approximately 35 percent), who are known as a progressive farming caste (now classified as Other Backward Caste (OBC)). The rest of the population forms a mixture of other OBCs, various SCs as well as a small population of STs. The Sarpanch is woman from the Patidar caste. Her husband and his relative however, largely carry out her work. In comparison with other Gram Panchayats people in B** are not too dissatisfied with the community works implemented by the Panchayat. Gutters, roads, and tube-well have been built in various parts of the village during the last five years. However, there is a commonly held perception that individual benefits can only be accessed by people who have a relationship with the Sarpanch's family. Such relationships are formed on the basis of frequent labor work for the Sarpanch and her kin, purchasing goods from shops owned by them, and voting in their favor. Many of these people are dependent on the Patidars for their livelihoods. Some of them also fall into the more vulnerable sections of the village and most of them are SCs and STs. The people who feel that they are excluded from the individual benefits of the Panchayat emphasize that they lack the awareness of what to do to change the situation and they do not know whom to turn to outside the Panchayat. One Wardpanch said that he has no powers, but that he and other Wardpanches have to go along with whatever the Patidars decide in the Panchayat as many of them are also dependent on the Patidars for labor. A few villagers spoken to stressed that it is not in their hands to improve the Panchayat and that turning to higher officers will not help as they will say that it is not their business and direct them back to the Gram Panchayat.

Source: World Bank, 2000e.

D. Social Identity and Economic Exclusion

2.26 In Uttar Pradesh, exclusion based on gender and social identity is not only deeply ingrained; it is also a powerful contributing factor to the persistence of poverty. Class and caste tensions are exacerbated by low growth and limited opportunities, particularly in rural areas.

Links Between Caste and Poverty

2.27 Consultations in rural villages for the 1998 UP/Bihar Poverty Study and the 1999 Consultations on Poverty Monitoring paint a vivid picture of the many links between social identity and poverty. The vast majority of respondents, rich and poor alike, identified a poor household as one at the low end of the caste hierarchy -- most often a member of the Scheduled Castes or Scheduled Tribes (Box 2.6). Social identity is a strong predictor of who is and is not poor, who is illiterate, who is employed in low-paid, low status agricultural labor, and who lives in poorly constructed housing with limited access to basic services. Despite decades of effort on the part of successive governments, SC/STs are twice as likely to be poor (measured in terms of material deprivation) as are "majority" individuals, the aggregate of all non-SC/STs. While SC/STs account for less than one-quarter of the population, they continue to comprise one-third of the total poor in the state. (Table 2.6).

Table 2.6 Poverty Incidence and Shares by Caste Status

Year	Caste Group	Incidence of Poverty			Percentage of:	
		Urban	Rural	Overall	Population	Poor
1987-88	SC / ST	48.3	56.2	55.3	24	32
	Other	35.7	37.5	37.2	76	68
	Overall	37.4	42.3	41.5	100	100
1993-94	SC / ST	57.5	58.6	58.4	23	33
	Other	31.3	37.0	35.7	77	67
	Overall	35.0	42.4	40.9	100	100
1999-00	SC/ST	42.5	43.0	42.9	24	33
	Other	28.4	26.9	27.2	76	67
	Overall	30.7	31.1	31.0	100	100

Source: 1987-88, 1993-94, 1999-00 NSS.

Box 2.6 Caste in Indian Society

Indian society has traditionally been divided into a large number of hierarchically ranked classes, generally known as castes. Historically, these castes were called "varna", or colors, based on the notion that the members of each group are categorically different; and it is sometimes alleged that these differences were once attributable to ethnic divisions that developed as a result of successive waves of invasion and conquest. The varna were ranked vertically, with the Brahmin religious specialists at the top, the military and aristocratic Ksatriyas in second place, the merchant Vaisyas below the Ksatriyas, and the Sudra laborers and craftsmen at the bottom. Below the Sudra, an untouchable subclass arose from among those who pursued stigmatized occupations such as waste collection and leatherwork. These castes had a religious significance, close contact with a member of a low caste group was thought to be polluting and required ritual purification. Today, although caste discrimination is illegal and each caste is now divided into a large number of subcastes, the varna structure still functions as a common basis for the classification and ranking of social groups. Members of different castes (or subcastes) rarely marry, and some Indians still hesitate to share food or water with those they consider "lower" on the ritual hierarchy. As a result, members of the lower castes, particularly those at the very bottom, suffer discrimination in hiring and in the apportionment of public goods such as well water. In recognition of this problem, the GOI has created a body of legislation and policies aimed at correcting caste-based imbalances in the distribution of public benefits. These include a series of scholarships and reserved positions in universities and other public sector institutions for members of groups designated as "scheduled castes and tribes" (SC/STs). Although the SC/STs are traditionally the lowest ranked groups, the GOI also recognizes the existence of less stigmatized groups ("Other Backward Castes," or OBCs) that may also suffer discrimination. With legislation aimed at protecting the rights of these groups, the GOI hopes to create a legal environment which will influence social norms and behavior and thus break the cycle of social bias that has depressed the economic and social prospects of stigmatized groups for centuries.

2.28 A number of factors explain the gap in living standards between SC/STs and majority households. First, SC/STs tend to own fewer private assets – in particular, less land and of poorer quality, and lower levels of human capital. Given difficulties in redistributing land and the importance of opportunities in the non-farm sector, education could play a particularly important role in promoting improved welfare. Although the gap has been closing, differences remain in some of the poorer regions of the state, recent evidence suggests that children from (rural) lower caste households are less likely to be enrolled in school than children from upper caste households, regardless of income levels (Box 2.7). In 1995-96 (NSS 52nd Round), 41 percent of SC/ST girls 6-14 years of age were enrolled in school in rural areas, as compared to 50 percent of girls from majority households. The gap in boys school enrollments was smaller – 78 percent of SC/ST boys were enrolled in comparison to 83 percent of boys from other households. Enrollment gaps were particularly notable for SC/STs from the poorest households. By 1999-00 (NSS 55th Round), enrollments for rural SC/ST girls had risen to 55 percent as compared to 61 percent enrollments for girls from majority households. Interestingly, there is a wider gap in enrollments between SC/STs and girls from majority households in urban areas – 67 percent of SC/ST girls in urban areas are enrolled in school, as compared to 75 percent for girls from majority households. (Chapter 5).

Box 2.7 The Impact of Caste and Wealth on School Enrollments

The UP/Bihar Poverty Study found that 74 percent of primary-school-aged boys (6-12 yr.) attend school as compared to only 55 percent of girls, despite the fact that most households lived within 3 kilometers of a public primary school. As the tables below demonstrate, enrollment rates vary not only by caste but also by per-capita expenditure levels. And with the exception of upper-caste households, poverty has a far stronger impact on enrollment levels of girls than those of boys. For example, only 35 percent of poor SC/ST girls (defined as 6-12 year old girls from households in the bottom 40 percent of the welfare distribution) were enrolled in primary school, as compared to over 70 percent of poor upper, and middle caste girls. In contrast, 55 percent of poor, SC/ST boys were enrolled in school in comparison to over 75 percent of equally poor, upper, and middle caste boys. Caste-based differences in girl's primary school enrollments were still evident for well-off households: only 55 percent of SC/ST girls living in the wealthiest quintile of households were enrolled in primary school, as compared to 90 percent of girls from wealthier upper caste households.

Caste group	Boys Per capita consumption quintile					Overall
	Poorest 20%	2nd	3rd	4th	Wealthiest 20%	
Upper/middle caste	60.0%	93.1%	92.5%	95.9%	96.6%	83.1%
Backward agriculture	73.5	78.0	75.1	74.6	90.6	78.8
Backward-other	62.8	74.2	78.1	90.9	85.0	75.9
SC/ST	48.9	59.3	65.6	77.7	82.7	60.1
Muslim	50.4	58.2	70.1	67.6	88.9	63.6
Overall	57.3	70.6	75.2	81.2	91.4	73.9

Caste group	Girls Per capita consumption quintile					Overall
	Poorest 20%	2nd	3rd	4th	Wealthiest 20%	
Upper/middle caste	72.7%	78.2%	60.2%	89.2%	89.7%	83.4%
Backward agriculture	24.3	42.8	74.8	59.4	78.8	58.4
Backward-other	39.3	49.8	55.0	57.7	63.0	49.6
SC / ST	30.3	39.3	46.7	54.4	55.1	39.1
Muslim	46.3	38.8	54.8	51.8	70.8	50.5
Overall	35.6	46.0	58.7	64.5	80.2	54.9

Source: UP/Bihar Poverty Study, survey tabulations, 1998

2.29 Why are children from lower caste households less likely to attend school than children from majority households? One reason has to do with expected returns. Despite significant progress over the past 10 years, not a single SC/ST girl was attending school in several of the villages visited in the qualitative phase of the work. In discussions with lower-caste households, education was only sometimes seen as a means of economic mobility. Heirs to a social identity that places them at a disadvantage in interactions with higher castes, the SC/STs see the stigma they carry as life-long, a burden to be inherited in turn by their own children. In many cases, this stigma may cancel the advantage conferred by secondary or higher education in the competition for high-paying jobs (see Table 2.7 below). Few ST/SC informants saw opportunities with the traditional village economy for advancement. With prospects foreclosed at home, most looked outside – to the rural non-farm sector, to jobs in the city -- for opportunities, for social and economic advancement. Research in urban areas suggests that barriers linked to social identity begin to break down as poor households move out of the traditional economy (Parker, Kukreja and Kozel, 2001) If this trend continues, SC/STs may become more motivated to invest in higher education for their children, particularly those living in urban areas.

2.30 Returns to Assets. Findings from a recent study suggest (Lanjouw and Zaidi, 2001) that low-caste households not only are worse off in terms of levels of assets but also experience lower economic returns to the minimal stock they do possess, including their stock of human capital. According to NSS data from the mid-1990s, per capita consumption of SC/ST households in Uttar Pradesh is about 30 per cent lower on average than in other (majority) households. To some extent, this gap is due to the fact that the lower caste households own less land as well as other assets, in particular human capital. For instance, per capita landholdings of scheduled caste households in UP (0.26 acres per person) are a little more than a third those of majority households (0.70 acres per person). Similarly, the survey data show that about 80 percent of adults in rural scheduled caste households in UP had received no education as compared to 58 percent in majority households. Similar disadvantages exist in urban areas: 57 percent of adults in urban scheduled caste households had received no education in comparison to only 34 percent in majority households. (Annex Table 2.1)

2.31 But differences in welfare levels are not just explained by differences in stocks of assets. A regression model employing data from the 1993-94 NSSO survey was used to estimate determinants of per capita consumption separately for SC/ST households and majority households for Uttar Pradesh as well as all-India. (Annex Table 2.2 for detailed model results). These results indicate that about half the difference in welfare (per capita consumption) between the two groups could be attributed to differences in asset holdings, while a roughly equal share was due to differences in returns. Although the results for Uttar Pradesh did not differ significantly in this respect from those for India as a whole, this finding nonetheless raises some troubling questions regarding possible causes of these differences.

2.32 The analysis revealed a number of interesting findings. Not surprisingly, increases in household size for both SC/ST and majority households were associated with lower per capita consumption. Similarly, returns to land were found to be positive and significant for both groups of households, as were returns to education in both the majority and SC/ST group. However, closer examination of the results reveals some significant differences between the parameter estimates for the two groups. (Table 2.7) Specifically, not only did SC/ST households own less land, they also experienced lower returns to the land they did own. In education, SC/STs with low levels of education (primary or less) experienced lower returns than did majority households, and the gap is larger in UP relative to all-India findings. Returns to higher education appear low in rural UP relative to the rest of rural India – a finding that probably reflects the relative scarcity of good opportunities for people with high education levels as well as less access by SC/ST job seekers. Returns to higher education in urban UP are similar to all-India urban returns, although returns for SC/ST workers are clearly lower than those for well-educated workers from majority households (at the all-India level and particularly for urban UP).

Table 2.7 Differential Returns to Assets: Scheduled Caste/Tribe and Other Castes (Percent)

Dependent Variable: log per capita consumption	All-India		Uttar Pradesh	
	Majority	Scheduled Caste	Majority	Scheduled Caste
	Rural Areas			
Household size	-0.026	-0.035	-0.014	-0.029
Per capita land owned	0.069	0.067	0.186	0.164
Proportion of adults with:				
Education below primary level	0.162	0.117	0.215	0.073
Primary education	0.255	0.199	0.230	0.215
Middle school education	0.353	0.268	0.298	0.284
Matriculation	0.561	0.501	0.430	0.413
Higher secondary or more	0.819	0.781	0.626	0.478
	Urban Areas			
Household size	-0.074	-0.069	-0.056	-0.048
Proportion of adults with:				
Primary education or below	0.177	0.151	0.226	0.125
Middle school or matriculation	0.420	0.327	0.403	0.417
Higher secondary or more	0.864	0.697	0.804	0.595

Source: From Lanjouw and Zaidi (2001) based on the 1993-94 NSS Consumer Expenditure Survey.

2.33 More work remains to be done to understand the factors that underpin these results. However, an important message emerges from the current exercise: while policies to raise the human capital of SC/ST households and strengthen other productive assets holdings of the group must remain a priority, this alone will not be sufficient to close the gap between the two groups.

2.34 **Location and Land Ownership** distinguish many lower caste households from the rest. SC and ST families often live in separate hamlets at the edge of the village, although a few may occupy a homestead plot in the village, belonging to an upper caste employer. Lack of a homestead plot was seen as a particularly grave form of landlessness, leaving homeless households at the mercy of wealthy landlords. Hamlets occupied by SC/ST households also tend to be located at some distance from public resources such as clean wells and surfaced roads, as well as from such facilities as schools, public health centers and even Integrated Child Development Services (ICDS) and the PDS fair price shop that are specifically intended to serve the poor.

2.35 Landlessness -- lack of access to fertile, well-watered agricultural land -- was mentioned as a cause and characteristic of poverty in every village covered in the UP/Bihar Poverty Study. SCs and STs rarely own land, and when they do, it is of such marginal quality that few households can support themselves by tilling only their own land. Most depend on earnings from casual labor, either within the village, typically on land owned by large landlords, or, with increasing frequency, outside the village. Many low-caste workers become attached laborers, typically receiving a small plot of land (homestead and/or agricultural) and in some cases other benefits, such as access to credit and food during lean periods from an upper-caste patron. Some are deeply in debt to their supposed patron. Such laborers must work on the agricultural fields of the patron whenever called upon to do so, usually at a wage that is no more than half the rate for unattached casual labor. It is not rare for a whole family to become attached in this way, to the point that even children have labor or service obligations. Many SC/STs and other very low-caste households dream of migrating to the city, but few have the kinds of connections needed to find work in advance. A move to the city, moreover, can be risky, particularly for the women and children left behind in the villages, but also for the migrants who lack the education and skills necessary for success in

an urban setting. Earlier analysis showed that poverty rates among illiterates are higher in the city than the countryside (Chapter 1).

2.36 Employment. Individuals from low-caste households also work disproportionately in low-paid, low-status jobs -- as agricultural laborers or low-skill laborers in the non-agriculture sector. Along with female workers, they form the mainstay of the agricultural labor force. And poor women from low-caste households are invariably trapped in the lowest paid and least desirable kinds of work. Although the traditional occupations associated with India's various castes and sub-castes generally do not determine the livelihood of individuals in today's labor market, nevertheless members of lower caste groups are still clustered in less desirable and lower paid activities (Box 2.8). Except in the case of agriculture labor, where all workers earn equally low wages, SC/STs earn less on average than do individuals from upper castes in all other occupations in rural areas. Other Backward Castes (OBCs) and Muslims face similar although not as extreme earnings differentials (Srivastava, 2000).

Box 2.8 Patterns of Employment in Rural UP – Poverty and Caste

Unlike the NSS, the survey done for the UP/Bihar Poverty Study provides detailed information on time spent by various household members in income earning activities. Based on this information, the poorest households were found to depend heavily on earning from casual labor in both the farm and non-farm sectors. Few have salaried employment. Time spent on own-farm activities increases steadily with income levels, the best off among rural households combine earnings from salaried employment with farming.

Distribution of Employment Days	Per capita consumption quintile					Overall
	1 st	2 nd	3 rd	4 th	5 th	
Self-emp: farming	14.6	27.8	30.5	37.4	49.9	33.4
Self-emp: non-farm	21.5	19.3	22.1	19.6	14.4	19.1
Agriculture laborer	23.7	11.9	15.1	9.1	6.0	12.5
Non-farm laborer	25.9	25.0	18.9	19.3	5.0	18.0
Salaried employment	8.8	13.1	9.5	12.2	22.8	13.8

Very low caste households (viz. SC/STs) also were heavily represented in the agriculture sector, particularly as casual labors. And those who did not work as casual laborers in agriculture were likely to be working as casual laborers in non-farm activities. Few of the lower caste households had permanent or secure jobs.

Distribution of Employment Days	Upper	Other Backward	SC/ST
Self emp: farming	39.1	42.2	20.5
Self-emp: non-farm	14.8	19.9	11.8
Agriculture laborer	1.5	7.6	29.4
Non-farm laborer	11.0	17.5	23.6
Salaried employment	31.6	11.2	12.0
Total	100	100	100

Source: UP/Bihar Poverty Study, survey tabulations

Further Links -- Gender and Poverty

2.37 Gender also is linked in many ways to poverty. A disproportionate number of the very poor and destitute are in female-headed households, and many of these women are destitute because their gender forecloses many occupations and opportunities to participate equally with men in political and economic life. When a village woman becomes her family's chief breadwinner, she may find work in agriculture, but she is commonly paid only a half to two-thirds of the wage a man receives for performing the same work. Particularly if her parents were poor, she is unlikely to be literate or to have any qualifications for

non-agricultural employment. Some women are even reluctant to enroll any of their daughters in school, since married daughters take their educational benefits, if any, to their husbands' families. Various features of the social structure discourage women from acquiring the skills that enable them to cope at times of stress or to qualify for employment at equal wages. These barriers enhance the likelihood that the women will fall into destitution in case of a shock such as desertion, disability or death of a spouse.

2.38 Clear evidence of the disadvantage imposed on women in Uttar Pradesh comes in demographic data from the 1998-99 National Family Health Survey (NFHS-2, IIPS, 2000) that found only 927 females for every 1,000 males. This is lower than the all-India average (NFHS-2, IIPS, 2000) of 949 females for every 1,000 males and is strikingly different than sex ratios in many other countries. Usually, the biological advantage of females leads to higher survival rates and sex ratios.

2.39 **Economic Contributions of Women.** One of the many complex issues on which this study touches upon is the interplay between the valuation of women in relation to their perceived and actual economic contribution. In the supporting qualitative research, women in many parts of the state and particularly in rural areas were perceived as having little or no potential for adding to the economic standing of the household. UP society's cultural ideal dictates that respectable women should remain in the home and not engage in work for pay. Poor families are rarely able to conform to the ideal.

2.40 Yet even they undervalue women's economic contribution. Because women often have fewer skills and earn lower pay and female offspring usually require dowry for marriage, women were often regarded as a burden. Some respondents also recognized that some lower caste households improve their economic situation when their women supplement family income through employment in the fields or homes of others. The traditional ideal of the secluded and unemployed wife is recognized to be in conflict with pragmatic efforts to improve economic well-being and household status. This awareness may indicate a trend that could, in the longer term, result in full acceptance of women operating as economic beings in society beyond the household. If so, women's autonomy may ultimately increase. On the negative side, until women are more fully empowered, it is likely that the pattern of the "triple burden" of women (where they take on economic as well as conventional social and reproductive responsibilities) will continue.

Box 2.9 The Plight of Poor Women

Parvati is a 46-year-old scheduled-caste woman living in the Allahabad District of UP. Her husband is a *dhobi* (laundry man) in Bombay and she does agricultural labor in the village. On occasion, he sends the family money. Parvati is illiterate, and her family is landless, although allotted 5 bigas of patta land. The family has still not gotten possession of this land, however, since "it is with the rich." Parvati was married when she was 13 years old and has given birth to 10 children. Two of the children died very young, and she has no idea what caused their illnesses -- treated by the traditional healer (*ojha*) -- and subsequent deaths. Parvati is indebted to two of the wealthier families in the villages, who lent her money for the marriages of her children. She pays a monthly interest of 10% on the outstanding balance and is required to work on the fields of both families. She once took a loan from a government scheme (she believes it was the IRDP), but has since sold the pump set and thresher she purchased with the loan. She claims she had to do so in order to repay the loan. The only government program she now utilizes is the PDS shop, where she can buy 3 kgs. of rice and 7 kgs. of wheat monthly at subsidized prices. Sometimes, though, she does not have money when the grains are available and she loses her monthly allocation. Despite these hardships, Parvati says her family is not hungry, because "by laboring and working hard, we are able to fill our stomachs somehow."

Source: field visits, UP/Bihar Poverty Study, 1998.

2.41 **Employment Patterns of UP Women.** Although almost half the population of UP is female, women are under-represented in the labor force, even more so than in most other states. Comparable estimates show that the workforce participation rates of women in Uttar Pradesh are lower than the national level, and significantly lower than in the southern states. According to recent estimates based on

the NSS 55th Round (1999-00), 16.4 percent of rural females aged 5 years old or older were working³ in UP, as compared to 25.3 percent at the all-India level⁴. Female employment is lower in the cities; in UP, 8.4 percent of females were employed outside the household, as compared to 12.8 percent for the country as a whole. (GOI, 2000c) Analysis of NSS as well as employment rates from the Population Census (Dreze and Gazdar, 1997) suggest that there has been little change in either the level or structure of women's employment over the past few decades. This is a concern given current patterns of female employment.

2.42 A high proportion of female workers is concentrated in low-paid casual work, primarily in the agriculture sector. While participation in non-farm employment has increased for both men and women, the rate of increase for females has been relatively slow. In 1993-94, only 10 percent of rural female workers were in non-agricultural activities. In consequence, there has been a feminization of the agricultural workforce, as the relative proportion of both female cultivators and female agricultural laborers has grown. One possible cause of this shift is male migration in search of better-paid off-farm employment. As men move away to seek higher wages, many of the women left behind take up casual employment in the agriculture sector – low-paid, low-status, dead-end work. Cultural factors, however, constrain women's ability to move freely for economic purposes. The women who do work often engage in the lowest paid activities – casual labor in fields, gathering firewood and dung to sell in nearby towns, piece-work and construction activities in urban areas. The UP/Bihar Poverty Study found women in rural areas to be heavily represented in the agriculture sector: three-quarters of women's employment-days were in agriculture, as compared to only 40 percent of men's (Table 2.8). And women were three times more likely than men to work as agriculture laborers – backbreaking, insecure, and low status work. In contrast, women rarely held regular jobs or jobs in the non-farm sector, activities left to the men. When they did obtain such employment, women were again relatively underpaid and confined to unskilled activities.

Table 2.8 Distribution of Employment by Gender

Distribution of Employment Days	Male	Female	Total
Self emp: farming	29.7	47.5	33.4
Self-emp: non-farm	20.3	14.4	19.1
Agriculture laborer	8.7	27.3	12.5
Non-farm laborer	21.6	4.1	18.0
Salaried employment	16.6	2.8	13.8
Total	100.0	100.0	100.0

Source: UP/Bihar Poverty Study, 1998.

2.43 **Overcoming Social Barriers.** Given the documented, fundamental impact of social identity on welfare levels and the slim remedial results obtained by established policies and affirmative-action efforts, it is necessary to ask if and what additional measures can be taken to make more rapid and sustainable improvements in the well-being of individuals belonging to socially marginalized groups, as well as women. Clearly, overcoming deficits in human capital through education and skills programs will lead to greater empowerment. Such measures are essential components of any effective poverty reduction strategy for the state. Instituting land-leasing arrangements that could liberate attached laborers from near-serfdom might help them move upwards in income if not status. Shortening the distance between

³ Work participation is defined as the average number of persons employed in a week, based on reported current weekly employment status. See the recent NSS report on employment and unemployment for the 55th Round for a more detailed discussion (GOI, 2000c).

⁴ Average employment rates mask considerable variation in women's employment patterns over the calendar year; during peak planting and harvest seasons, a high percentage of rural women are pulled into the workforce.

the habitations of low-caste villagers and a range of public facilities – water, schools, health care etc. – could improve access to and use of key anti-poverty interventions. These and other suggestions are discussed at greater length in Chapters 4 and 5. Given the characteristic voicelessness of the poor and the low-caste poor in particular, the leadership of Uttar Pradesh must find new means of helping the disadvantaged to be heard and of mobilizing society to act on their concerns.

Welfare and Child Labor

2.44 **Child labor** has attracted a great deal of attention, both in the Indian literature and from the wider development community. Children comprise a large and vulnerable section of Indian society; in UP, an estimated 40 percent of the population are less than 15 years old. Discussions of child labor are marked by problems of definition and measurement, although statistics generally refer to the number of children aged 5-14 years of age working outside the domestic sphere, but including those who work in family-owned enterprises. According to the 1991 Census of India, more than 11 million children were working in India, generally thought to be a conservative estimate. Among Indian states, UP accounts for the highest number of working children – more than 1.4 million (3.8 percent of the age group) with an additional 370,000 seeking or available for work.

2.45 Participation in the labor force compromises the welfare of children in numerous ways. Most notably, it cripples their future earning potential by preventing them from acquiring the education assets that open access to higher paying jobs. In addition, long hours and poor conditions can damage the health and physical growth potential of a child. Of particular concern are the high numbers of children working in more hazardous industries – e.g. tannery and leather works in Agra, the *bidi* industry in Amroha, Moradabad, and Gursahaigang, pottery and ceramic industries in Khruja, glass works in Ferozabad, and carpet weaving in Varanasi, Mirzapur, and Badohi. Based on a survey of child labor in hazardous industries in 1997, GOUP estimates that 200,000-250,000 are working in hazardous occupations in which children's employment is prohibited by law, many of them, moreover, as bonded laborers.

2.46 Although children work for many reasons, poverty is clearly an important motivator. Children also work for reasons linked to labor demand, discrimination and poor enforcement of laws. In some cases, children are withdrawn from school in response to shocks to income or families may be forced to put their children to work. But empirical work suggests (Bhatty, 1998, for a summary of the literature) that children enrolled in school do not work appreciably fewer hours (including domestic work) than children not enrolled in school. Research undertaken as background to this report suggests that child labor is disproportionately high among the poorest as well as low-caste households (Kriesel, 1999). For example, in the UP/Bihar Study districts, 7.3 percent of children aged 10-13 years reported working.⁵ Of these, forty-six percent were engaged in casual activities and 34 percent worked on the family farm. The likelihood of working fell sharply with levels of income – 13 percent of children from the poorest 20 percent of households reported working, as compared to only 3 percent of children from the wealthiest 20 percent of households. Children from SC/ST households were much more likely to be working (13 percent) than those from upper and middle caste households (3 percent.)

2.47 The participatory study on urban poverty in UP suggests that child labor is more pervasive in urban areas, where many more employment opportunities are available outside the household. Withdrawing children from school is a common pattern among the poor. Many disadvantaged parents feel they can better prepare their children to earn an adequate income by ensuring that they learn a useful skill such as carpentry, painting, bicycle repair etc. – either at home or in a workshop apprenticeship.

⁵ Includes working outside the household as well as in a family business or on agriculture lands operated by the household.

Since these skills are typically learned on the job, poor children often enter the workforce between the ages of 10 and 15, if not earlier. The very poorest households are sometimes forced to send very young children into unskilled jobs in which they are exploited by employers and learn nothing of use. The poorest households, however, are sometimes forced to send very young children into unskilled jobs, where they are exploited by employers and learn nothing of use.

Box 2.10 Broken Dreams of the Poorest

Although most of their friends are still attending school, extreme poverty forced the parents of Ram and Pranay to withdraw them from school for work in a local tea-stall. Ram and Pranay earn only Rs. 10 each day (around 25 cents) for working 14-16 hours and often sleep on the floor of the tea stall rather than walk home late at night. Their pay is given directly to their families. They say that the tea-stall owner mistreats them and strikes them often, but their parents do not dare to interfere. When asked about their hopes for the future, the two boys said that they dream of learning a skill and running away. If they have to work under these conditions, they say, they would prefer to do so far from their own neighborhood because they feel a sense of shame when community members see them being beaten. At present, however, they do not see any alternative to their current way of life.

Source: Parker, Kukreja, and Kozel, 2001.

2.48 An effective strategy to tackle child labor must be multi-sectoral and entail both long- and short-term interventions. Over time, child labor can be reduced through (i) higher incomes and opportunities for mobility; (ii) access to better quality schools, especially at secondary and post-secondary levels, and jobs that reward education; and (iii) more effective safety nets and mechanisms for smoothing consumption, so children are not pulled out of school. In the short term, however, tougher law enforcement should curb the most hazardous forms of child labor. Minimum-wage legislation, removing children from hazardous occupations getting them back to school and possibly providing safety nets and other services to help the family absorb the shock of lost labor earnings can all contribute.

E. Heterogeneity of the Poor: Why Does it Matter?⁶

2.49 The term “poverty” may be misleading in that it suggests that all poor households are the same. In fact, the poor are a heterogeneous group. This heterogeneity has been recognized in various ways: for example, chronic poverty is distinguished from transitory poverty; and the poorest of the poor, or destitute, constitute a distinct group. But while these differences have been recognized, the factors that underlie and perpetuate them receive far less attention. Differing forces limit economic opportunities among poor households, and these differences impact on future economic prospects as well as have implications for policy design.

2.50 The various qualitative studies done as background for the report helped to highlight at least three syndromes or patterns of poverty in UP

2.51 The poorest of the poor, or *destitute poor* lack material, human, and social assets. Their income sources are limited to intermittently available casual labor, or in the worst cases, begging and foraging. They own few productive assets (e.g. land, animals, equipment) and in some cases do not even own a homestead plot. Lack of adequate housing and secure tenure was a particular concern for urban respondents; many of the destitute sleep on the streets or under bridges and thoroughfares. Few have attained basic literacy and many suffer from ill-health, malnutrition, and other handicaps. Few maintain significant kinship or social ties beyond the nuclear family, and little informal assistance is available to help meet emergency or longer-term requirements. They are unable to reciprocate acts of generosity or participate in an exchange of favors, and are therefore deprived of the informal safety nets that cushion other households in times of shortage or emergency need. The fear that they might descend to this level

⁶ This section draws information and analysis from: Kozel, Valerie and Barbara Parker (1999). *Poverty in Rural India: The Contribution of Qualitative Research in Poverty Analysis*. World Bank, Washington DC.

of destitution is an important component of the vulnerability experienced by other poor households; it leads to risk adverse behavior.

2.52 Destitution is often linked to idiosyncratic shocks, in the form of the loss, desertion or incapacity of a breadwinner, a persistent and expensive illness in the family, mental illness or alcoholism. Systemic shocks such as droughts or floods also may be catastrophic for those without savings or safety nets. In some cases, economic drains such as the dowry requirements attendant upon the marriage of daughters were said to have driven a household into destitution. Since the poor have little in the way of savings or saleable assets to provide a cushion, shocks may permanently destroy their resource base. If the family is forced into chronic debt or debt servitude, their ability to recover is likewise damaged. A large proportion of destitute households may thus be described as downwardly mobile, in that their economic well-being has deteriorated from previous levels as a result of misfortune or poor management. Their poverty is unlikely to be transitory, however, because the “traps” of destitution (such as the sale of assets and chronic indebtedness) prevent them from taking advantage of future opportunities. Self-support is thus no more than a distant dream for the majority of the destitute poor.

2.53 Other very poor households were found to have maintained a basic equilibrium over long periods, even over generations. Of these households, informants said “what can be said of them other than that they are poor?” Many support themselves through casual agricultural labor, and few own significant assets beyond a household plot (if that). Literacy and school enrollments are low, and they tend to occupy temporary *kacha* housing with little access to clean water or sanitary facilities.

2.54 Social identity is a strong predictor of who exhibits these characteristics. Members of the lowest castes and scheduled tribes often rely on low-pay, low status forms of employment, and, as discussed above, they are less likely than upper caste households to obtain the training and education needed to boost them or their children out of poverty. In many rural villages, SC/STs reside in separate hamlets at the edge of the village, and they are denied access to community infrastructure (especially clean water) and other common property resources shared by members of middle and upper castes. Access to well-watered and fertile lands is constrained by the fact that their hamlets tend to be located in marginal areas more prone to flooding or salinity. In urban areas, lower caste households frequently live in unregistered slums or shantytowns with no schools, water, transport or jobs. These disadvantages are multiple and mutually reinforcing, and many SC and ST households remain caught in a perpetual web of poverty.

2.55 The poor who are characterized by a stigmatized social identity may be described, for lack of a better term, as *the stigmatized poor*. They are vulnerable to downward mobility, and many members of stigmatized social or ethnic groups are also destitute. With few prospects for advancement, the best hope for most is to maintain a steady state in which they do not descend into destitution, but retain the basic requirements of survival, self-support, and human decency.

2.56 Not all poor households face such low expectations. Although technically low-income and living under housing and sanitary conditions little better than their neighbors, some poor households were upwardly mobile. They were typically free of long-term debt and many possessed a small stock of potentially productive assets (such as dairy cattle, other livestock or a small amount of arable land). Their income sources were more diversified (e.g. from non-farm employment as well as agriculture) and many had members working in urban centers. Moreover, literacy was the norm and their children were more likely to be enrolled in school. Caste still mattered, although relatively less in the urban environment; many of them were members of middle-to-lower caste groups (Other Backward Castes, OBCs) rather than SC/STs. Their relative advantage over other families in the same caste and income group was often attributed to having more than one earning member and relatively few dependents. These households, who may be termed *the mobile poor*, demonstrate the potential for accumulating surplus resources,

investing in productive enterprises, and, in the absence of unexpected shocks, eventually climbing out of poverty.

2.57 These categories overlap to some extent, and specific households may partake of the characteristics of more than one type. This should not obscure the important fact that various types of poor households – the poorest, the poor and the less poor – face differing sets of circumstances in terms of the barriers and possibilities they encounter; and that some households are doubly disadvantaged by social and structural constraints. Household economic strategies will vary in consequence. Some households are able to strive for continuous, if gradual, economic improvement while others are preoccupied with the threat of further impoverishment and destitution. Still others, already destitute, are too busy securing the day's basic consumption requirements to even imagine long-term strategies for economic betterment.

2.58 The implications for policy are clear. Needs are different, as are barriers and opportunities for upward mobility. Policies and programs designed to redress poverty must reflect these differences; a strategy for reducing poverty that fails to take account of this diversity in needs and constraints will surely fail. For example, those hovering on the brink on destitution are likely to be risk-averse while others who possess a small surplus may be willing to invest this surplus in productive (albeit risky) activities. Micro-credit is often seen as an important means to reduce poverty. Certainly the "less poor," who possess at least minimal assets and are debt-free, are well-positioned to benefit from a micro-credit program. They are also more likely to use a micro-loan to invest in a productive enterprise than are those who are destitute and already laboring under a burden of debt. Destitute households are likely to utilize micro-loans for emergency consumption purposes, thereby increasing their indebtedness. The poorest of the poor and destitute may receive greater benefit from safety-net programs such as food subsidies or food-for-work initiatives. On the other hand, a destitute woman struggling to raise young children may not be in a position to take up work under a rural employment scheme; her time is too limited, her needs too basic. Moreover, for those whose poverty is reinforced and supported by social stigmatization, anti-discrimination legislation and other social interventions may be an unavoidable recourse if real change is to be achieved

The Challenges

2.59 The larger policy challenges for poverty reduction in Uttar Pradesh are of three kinds.

2.60 First, there is the challenge of developing a wider array of economic opportunities that will assist the poor in their struggle to escape poverty and deprivation. By fostering a dynamic and growing economy, UP can create an environment conducive to the creation of jobs in many sectors and at all levels. The state's poverty levels have fallen during periods of rapid growth and stagnated in periods of slow growth. Recovering the growth momentum demonstrated in the 1960s and 1970s, therefore, is a critical concern if UP is to see significant progress in reducing poverty.

2.61 However, many of the poor are ill-equipped to take advantage of new employment opportunities, either because they lack job skills or because they are ill, disabled or elderly. Expansion of job opportunities in high-tech sectors, for example, will be of little benefit to households unable to afford investments in education; and reforms in the agricultural sector will favor those with agricultural land. Even expansion of the industrial sector may bypass those workers whose deprivations include a paucity of skills and education. A recent study of urban poverty in UP found although secondary growth that benefits unskilled workers is expected to develop in the vicinity of large factories, many modern factories are self-sufficient and isolated from the local economy. These factories may provide opportunities for job seekers who are literate and skilled, but they employ few, if any, unskilled workers. Providing the

enabling factors – such as high-quality education and health care – that will permit a broader spectrum of the potential work force to participate in the fruits of accelerated growth is the second challenge faced by UP policy and decision makers.

2.62 Even if these challenges are met, there will always be a subset of the poor who are either temporarily or permanently unable to participate in the growth process. These individuals might include the permanently disabled, single mothers of small children, the mentally ill, or simply those who have suffered a series of shocks and setbacks that may have overwhelmed their coping capacity. The third and final challenge for UP, therefore, is to provide a more effective set of public safety nets that can protect the most vulnerable from the impact of shocks and misfortunes.

Chapter 3

GOVERNANCE AND POVERTY REDUCTION IN UTTAR PRADESH

A. Introduction

3.1 The most effective way to improve the way that government works for the poor is to improve the way government works. The Government of Uttar Pradesh serves India's largest state, and one of its poorest. UP's development challenges loom large; the state administration has been slow to respond and there has been a continuing decline in overall effectiveness.

3.2 The first part of this chapter explores what went wrong, focusing on the political and bureaucratic dynamics that have undercut good administrative practices and created systemic problems in how delivery systems work. The constraint is rarely lack of funds, but instead a failure in management of these systems. The chapter then considers the impact that this failure has had on the poor. A number of important service delivery failures in areas such as health, education, and safety nets are covered in subsequent chapters; thus this chapter pays particular attention to problems of justice and legal redress. It concludes by identifying some of the recent reforms that have sought to reverse this decline and ensure that UP's public sector plays its proper part in realizing the ambitious agenda that India's founders envisioned.

B. The Failure of Public Services in UP

3.3 During the colonial period and the years immediately after independence, UP enjoyed a relatively efficient administration. The state's civil service compiled an impressive record in the implementation of land reforms, national extension and community development projects and programs, and district planning, among others. Unfortunately, this legacy has eroded in recent years. This deterioration is exemplified by the UP Irrigation Department's decline from a viable enterprise, listed on the London Stock Exchange, to its current state (Box 3.1).

Box 3.1 Case Study: The Decline of the UP Irrigation Department

The Uttar Pradesh Irrigation Department is one of the oldest and largest Government Departments within the State Government of Uttar Pradesh. It was once a proud institution, not only making a full cost recovery but listed on the London Stock Exchange. It has since fallen into decline.

This reflects the cumulative impact of a number of factors. First, there has been systematic under-pricing of water for certain major classes of user, including farmers. This has resulted in over-use of a scarce resource and has undermined the financial viability of the sector. Second, there has been gross overstaffing in the Department, with the salaries bill of the Department becoming an unsustainable burden and further undermining the viability of the Department. Third, the combination of under-pricing of water and the spiralling salaries bill has left little money for investment in new infrastructure, or for operation and maintenance expenditure, and what little there has been has been poorly managed. Fourth, there has been systemic corruption and non-payment throughout the system, with non-payment partly a response to the poor service delivered to many customers.

A government strategy for the UP water sector has been developed based on an analysis of the current situation and a vision of a future UP water sector that is cost effective, focused on the needs of the customers and sustainable in financial, social, and environmental terms. The challenge now is to work out the implications for the UP Irrigation Department, as part of the process of implementing this vision.

Source: World Bank staff assessment.

3.4 The reasons for this decline are complex and operate on multiple levels. There are four of particular importance: (1) the increasing politicization of administration, which has severely eroded stability of tenure and undercut managerial authority; (2) the fragmentation of the administrative apparatus in the 1960s and 1970s, which has led to a proliferation of senior positions and complicated the task of policy and administrative coordination; (3) a related growth in the number of civil servants, which—in light of weak revenue mobilization—has placed a squeeze upon the capital budget, and operations and maintenance expenditures, and led to a growth in the wage bill that was unmatched by any concomitant growth in productivity; and (4) the failure due to poor expenditure management practices, to obtain maximum value for money from remaining resources.

Politicization of the Administration

3.5 There are three major political realities that fundamentally shape the exercise of political power in Uttar Pradesh. The first is its size. At 160 million, it is the largest and politically the most important state within India. UP sends the largest number of representatives to the *Lok Sabha* or lower house of Parliament—85 members, or 16 percent of the total. Several Indian prime ministers, including the current one, Atal Bihari Vajpayee are from UP. A large number of historic temples, mausoleums and sacred rivers can be found in the state, and it also contains dangerous flashpoints—such as the temple at Ayodhya—that are deeply symbolic of broader Indian political hopes and fears. For all of these reasons, political developments in UP will always be of national significance.

3.6 Second, UP's political landscape is highly fragmented. Historically, the state has been at the crossroads of India and witnessed frequent invasions and mass immigrations, resulting in a populace that is highly diverse ethnically, religiously, and socially. UP did not exist as an integrated political entity prior to the British Raj, where it was first the North Western Provinces of Agra and Avadh and subsequently renamed the United Provinces of Agra and Avadh in 1902, eventually shortened to the United Provinces in 1937. It did not receive its present name, Uttar Pradesh, until two and half years after independence. Even today, political allegiances and affiliations tend to run either to the national or local level or to be framed along tribal or ethnic lines, and there is no provincial name equivalent to Bengalis, Punjabis, etc., to identify the state's inhabitants.

3.7 This social fragmentation has strong manifestations in the political sphere. In the wake of the loosening of the Congress Party's grip upon power in the 1980s, UP has experienced chronic political upheaval and no fewer than eight separate Chief Minister tenures interspersed with periods of home rule from New Delhi. Following elections in February, 2002, UP's assembly contains 13 different parties and 12 independents, with a tri-polar balance existing between the BJP (88 MLAs, with an additional 25 seats held by MLA allies), the Samajwadi Party (143 MLAs) and the Bahujan Samaj Party (98 MLAs). The Congress Party holds only 25 seats and independents and others account for an additional 24 seats. No single, broad-based party has arisen to dominate the political horizon within UP, with the result being that fractious coalition politics has typically been the rule of the day.

3.8 The third important factor is the emerging role of caste in shaping UP's political landscape. Lower castes are becoming organized politically and voting in increasing numbers. As many knowledgeable observers have noted, while India's founders had dreamed half a century ago of a casteless society, caste has proven a resilient force. Paradoxically, this hierarchical, hereditary system that has oppressed the lower orders of society has also become an organizing principal that the marginalized themselves have seized on to forge their own political identity and to seek electoral power. This has been particularly pronounced in the rise of the Bahujan Samaj Party (Hindi for "Majority Society Party") or BSP, which has appealed primarily to the dalits or former "untouchables". Founded in 1984, the party has recently received support from as much as 20 percent of the electorate, including many of the middle

classes. But the role of caste is more subtle and pervasive, as a number of political parties have crafted their agendas—often successfully—to appeal to larger numbers of Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Castes (OBC), women, and Muslim voters. Sub-castes within various parties have not always agreed, and some have threatened or actually defected to parties perceived to be more responsive to their concerns.

3.9 The result is a complicated *mélange* of political maneuvering, in which short-term tactical alliances are common and the defection of a few key coalition partners can bring down a government. Unlike West Bengal and Kerala, the left has never been able to gain a significant foothold in UP. Considerations of personality and patronage are more important than ideology, and politics is typically more about the division of the fruits of power rather than conflicting policy prescriptions and divergent views about the optimal organization of society.

3.10 Political instability has been accompanied with the breakdown of political and administrative boundaries. Frequent oscillations in political leadership have had a disruptive impact upon the state's administrative structures, for each new government has been followed by a period of consolidation and realignment, in which new political leaders sought to reward friends, punish enemies, repay campaign debts, and transfer supporters into positions of authority. Rather than focusing on defining policy objectives and taking key strategic decisions, politicians in UP have increasingly intervened in day-to-day management decisions (particularly those involving personnel), which in most countries are left for administrators. In particular, there has been a rapid transfer of civil servants in top positions, resulting in policy instability and administrative discontinuity. According to one study, the tenure of district magistrates during the period 1972 to 1996 in U.P. varied from 12 to 18 months in 37 districts, 18 to 24 months in 13 districts, 6 to 12 months in 11 districts, and less than six months in 6 districts. The tenure of divisional commissioners was 10 months on average, and secretaries to government about 10 months. The problem of transfers has become so serious that one senior GOUP official recently quipped to the press, "the only thing which moves in UP is an officer."

3.11 Although a serious problem, political interference in senior transfers and postings is a particularly thorny issue to resolve. Under the Indian Constitution, the power to appoint civil servants is vested clearly with political leadership and then delegated to senior administrative staff. Transfers are one of the few tools that politicians have for ensuring the responsiveness of the administrative branch. However, excessive recourse to this instrument has had a corrosive effect upon staff morale and a debilitating impact upon managerial authority. In 1997, the High Court of Uttar Pradesh passed strictures against the state government prohibiting mass transfers and directing the GOUP to issue objective guidelines for transfer and ensure their enforcement by independent boards. This was appealed by the state government and the matter is currently pending before the Supreme Court. While particularly acute in UP, this problem is also present in other Indian states, and the Ninth Plan raises it as an important issue to be addressed.

Administrative Fragmentation

3.12 The second fundamental problem with UP's administration relates to the expansion of posts and fragmentation of departments. One of the most important tasks that governments face is that of organizing themselves to provide effective services for all of their citizens, particularly the most vulnerable. Below is a brief overview of how the GoUP is structured to provide services to its citizens (Box 3.2). Formally, the arrangements are fairly straight-forward. Overall policy advice is centered in the Council of Ministers and the Secretariat. Budgets, policies, and major personnel decisions are all made by the Department Secretariat in Lucknow. Responsibility for the delivery of different services lies with

the respective departments, many of which have field formations at the divisional, district, and (occasionally) tehsil level. Coordination at these various levels is the responsibility of the Divisional Commissioner, the District Magistrate/Collector, and the Sub-Divisional Magistrate respectively. In addition to coordinating the work of various line departments, Divisional Commissioners and District Collectors also have significant responsibility for law enforcement and revenue collection.

Box 3.2 General Overview of Government Organization in Uttar Pradesh

Under the Constitution of India, Uttar Pradesh has a Governor and a bicameral Legislature. The lower house, consisting of 426 members, is called the Vidhan Sabha. Members are elected for a five year term, unless the government is dissolved prior to that time. The upper house, or Vidhan Parishad, contains 108 members who are elected or nominated for a six year term, with one-sixth retiring every other year. With the exception of spending appropriations, which are the province of the Vidhan Sabha alone, no bill can become a law unless it is passed by both houses.

The Governor is appointed by the President of India and serves as the Head of State. All government orders are issued on behalf of the Governor, though they may be issued under signatures of officials. De facto leadership is provided by the Chief Minister and Council of Ministers, which currently consists of 91 Ministers: 37 Ministers, 11 State Ministers (Independent Charge); and 43 State Ministers.

The Council of Ministers is assisted by the Secretariat, which is headed by the Chief Secretary who also serves as Cabinet Secretary. There are 83 departments in the government. Some, such as the Department of Personnel and Appointments and the Department of Administrative Reforms, report directly to the Chief Secretary. But the majority report to Cabinet through their individual ministers.

Uttar Pradesh is divided into 19 Administrative Divisions for purposes of operational convenience. All are headed by Divisional Commissioners, who occupies an important place within UP's administration as the main coordinating link between the Secretariat and the field. This officer is fully responsible for law and order, revenue, administration, and other matters pertaining to his or her Division, and exercises supervision over the district officers, local bodies, and planning and development works.

Typically, each division consists of 3-6 districts, each of which is under the administrative charge of a District Magistrate/Collector. He or she has full responsibility for maintaining law and order in the district and has extensive administrative, police, and revenue powers. In addition, the officer is responsible for maintaining revenue records and work related to planning, development, and land reform. Nearly all departments have offices in the district, with district level departmental officers acting as Heads of Offices. There are 83 districts in the state.

The districts are further sub-divided into tehsils, blocks, and revenue villages for administrative convenience and the collection of revenue. The tehsil is usually a part of a district for revenue administration, and usually there are 3 to 6 tehsils per district. They are headed by a Sub-Divisional Magistrate, a revenue officer who performs multiple tasks of revenue collection, maintenance of law and order, implementation of government schemes and coordination. (He is the mirror image of the District Magistrate at the sub-district level.) Nearly all departments mirror officers at the sub-divisional level. The block is the unit for administering development schemes. There are anywhere from 0 to 20 blocks in a district, and they are headed by a Block Development Officer. Every village elects its headman, or *Pradhan*, who is responsive to the local council, or *Gram Sabha*. Throughout the state of UP, there are 356 tehsils, 904 blocks, and 123,950 revenue villages.

3.13 The requirements of coalition politics and the pressures of accommodating a host of senior bureaucrats in a rank-in-position (as opposed to a position classification) scheme have taken a heavy toll upon the efficiency and effectiveness of UP's public sector, particularly since the mid-1980s. The proliferation of departments and posts has been particularly deleterious upon the efficient delivery of goods and services. The expansion of the UP Secretariat provides a particularly telling example, for it serves as the clearing house of State Government and in many ways sets the tone for subordinate agencies (Dhar, 2000). In 1947, there were only 42 departments and sub-departments in the UP secretariat. Today, the departments number over 72 and the sub-departments are over 150. From 1965 to 1994, the number of sections in the Secretariat increased by about 50 percent, and the number of supervisory officers increased by more than seven-fold. In 1965, each secretary supervised 1.86 section officers. By the mid-1990's, this ratio had reversed itself to the point in which 1.14 secretaries were overseeing every section officer.

3.14 UP's current organizational structure bears witness to decades of political and administrative compromises. Assignments are parceled out to maintain fractious coalitions or to provide suitable postings for senior staff in a fashion at variance with any rationale breakdown of functions and responsibilities. There are four Ministers for Energy, and a Minister for Medical Education and Cane Development. There are four Departments of Education (Basic, Higher, Adult/Non Formal and Secondary). In some cases, functions such as the maintenance of rural roads are split between a variety of departments. In others, many different departments are operating in areas that are similar if not identical (there are, for example, at least five departments working on various social development issues). A number of departments are performing functions that have long ago been taken over wholly or in part by the private sector.

3.15 The result has been a fragmentation of accountability and authority. The division between the secretariat and field departments has become blurred, as the secretariat has expanded into areas previously reserved for the line departments. Coordination has suffered, and field departments have found their operational freedom increasingly circumscribed. This expansion has been accompanied by a proliferation in departmental rules and regulations, further expanding government's involvement into everyday life and complicating efficient service delivery.

Expansion in the Civil Service

3.16 One of the most vexing yet important questions with regard to poverty reduction is the role that the state should play in mobilizing human resources to deliver goods and services efficiently vis-à-vis its role in providing employment. UP has a long tradition of viewing the state as the main engine for employment generation. The problems with this approach are well known. An increasingly high proportion of revenues are diverted to paying salaries and pensions, leaving limited resources for capital and operations and maintenance expenditures. (In its 1998/99 fiscal year, for example, over 90 percent of UP's own revenues went to pay salaries and wages.) Eventually, productivity and the quality of service delivery declines. Large public sector unions become a potent political force, championing parochial interests and making it difficult to streamline and rationalize operations to deliver services more effectively.

3.17 Yet for many poor, the service that they desire most is a government job. The reasons underlying this preference are not difficult to fathom. The starting salary for a Class IV employee or peon is 2,575 rupees per month, vis-à-vis 1,500 for a small farmer and 1,115 per month or less for the 41 percent of UP's population estimated to live below the poverty line. Government work is easier physically. The pay is steady. The prospects for at least one or two promotions during one's career are virtually guaranteed, and the chance of being removed for non-performance is almost nil. Even a low level government

position carries with it a certain status or prestige. Furthermore, through the provision of compassionate employment, a public sector job becomes a legacy that can be handed down to one's children, ensuring the family against future destitution. Many state governments provide "compassionate employment" to the spouse or children of an employee who dies while in service. Although data from UP does not exist, interviews with GOUP officials indicate that the number of employees recruited through such practices are likely to be significant. In Andhra Pradesh, 1994 civil service census data revealed that nearly 16,500 staff, or 3.3 percent of all state civil servants, were recruited on compassionate grounds.

3.18 The political pressure for public sector jobs becomes particularly potent when it is merged with caste politics and the belief that, since particular groups have historically been excluded or under-represented, they are now entitled to a certain share of employment within the civil service. Few issues have been more controversial within India than programs that reserve a certain proportion of government jobs for scheduled castes and tribes. In UP, 27 percent of positions are set aside for Other Backward Castes, 21 percent for Scheduled Castes, and 2 percent for Scheduled Tribes. These programs are quite sensitive politically, and the debate surrounding them is similar to affirmative action debates in other contexts.

3.19 Many believe that the increasing political influence of the lower castes has generated great pressure for widespread, patronage based recruitment. Since it is extraordinarily difficult to discharge public sector workers once they have been hired, this could result in a significant expansion in low-skill employment within the civil service.

3.20 While it looms large in the elite perception, to what extent has patronage based recruitment actually been a problem within UP's public sector? With levels of employment that hover around 1 civil servant per 100 population, India is hardly overstaffed in comparison with global civil service norms. Neither is UP overstaffed when one compares the size of its civil service against that of other Indian states (Table 3.1). Indeed, it has the lowest number of staff per population in all categories, and on a per capita basis its total government and public enterprise employment is just over half the norm for the states in this sample.

Table 3.1 State Government Employment per 100 Population*

State	Population	Core		Total Gov.		Gov. & PE	
		Civil Service	Ratio	Employees*	Ratio	Employment	Ratio
Andhra Pradesh	75,110,584	553,972	0.74	965,892	1.29	1,328,550	1.77
Karnataka	51,152,000	240,969	0.47	530,984	1.04	693,246	1.36
Orissa	35,391,000	480,000	1.36	581,400	1.64	660,928	1.87
Gujarat	47,267,000	206,000	0.44	502,000	1.06	800,000	1.69
Uttar Pradesh	162,000,000	880,000	0.54	1,576,226	0.97	1,730,093	1.07

Source: World Bank Estimates.

* Note: The figures for Total Government Employees include work charged and daily wage laborers, grant-in-aid institutions and other employees whose salaries are covered by the state government. It does not include employees of municipalities. Figures for state government employees for Orissa are based upon World Bank projections from 1991 civil service census data.

3.21 While UP is not particularly overstaffed in comparison to Indian norms, other evidence indicates that patronage recruitment has indeed been a problem—although the story is more complex and nuanced than one might expect. The civil service increased rapidly during the post-Independence period as the state's focus moved from collecting revenues and ensuring law and order to the broader task of advancing development, and as the GOUP took up new challenges such as environmental protection (Table 3.2). Such expansion is typical of many states and countries during this period in both the developed and

developing world. However, historical data from 1975 through 1992 indicates that throughout this period public sector employment in UP increased at a rate nearly 40 percent faster than the national average. The size of the state's civil service grew by over 450,000 employees during this period, with over half of the increase occurring between 1981 and 1986—a period where UP's political life was still largely dominated by the Congress Party and the predominant role of caste in politics had yet to fully emerge.

Table 3.2 Increase in UP Civil Service Employment, 1971-92

Year	Class I&II		Class III		Class IV		Daily & Work Charged		Total	
	Num.	% Inc.	Num.	% Inc.	Num.	% Inc.	Num.	% Inc.	Num.	% Inc.
1971	12,437		268,305		210,730		52,714		544,186	
1976	19,685	58.3%	270,735	0.9%	239,278	13.5%	58,479	10.9%	588,177	8.1%
1981	24,622	25.1%	230,289	-14.9%	266,381	11.3%	71,273	21.9%	592,565	0.7%
1986	28,784	16.9%	354,423	53.9%	327,666	23.0%	202,513	184.1%	913,386	54.1%
1992	44,200	53.6%	433,962	22.4%	345,299	5.4%	173,224	-14.5%	996,685	9.1%
Total Inc.		255.4%		61.7%		63.9%		228.6%		83.2%
% Total	4.4%		43.5%		34.6%		17.4%		100.0%	

Source: Dhar, 2000.

3.22 By the early 1990s, the rapid expansion in civil service had largely come to an end. Although there are some questions regarding the accuracy and reliability of the numbers, the number of establishments in the core civil service actually decreased slightly from the peak of 997,000 in 1992 to 967,000 in 1999, with a vacancy rate of about 8 to 10 percent.

3.23 The expansion of UP's civil service during the 1970s and 1980s was uneven and greatest at both the higher and lower rungs of the civil service. In terms of numbers, this growth was particularly pronounced at the lower end. Approximately 93 percent of this increase involved non-gazetted staff (Class III and IV) and daily wage and work charged employees; only 7 percent involved the senior levels, Class I and II (including the senior All India Services and Provincial Civil Service). Indeed, Class III—which is typically comprised of higher level support staff and staff engaged in front-line service delivery—registered the lowest proportional increase of just under 62 percent during this period.

3.24 In many countries, the number of employees that enter the public sector as daily or contract wage workers can serve as a rough approximate of the extent to which patronage recruitment is a concern. This is particularly true when there is a significant vacancy rate within the public sector, for few employees would choose a temporary position over a permanent one unless they lacked qualifications for the latter. Although the evidence is not definitive, the rapid expansion of contract labor during the 1980s—many of whom were later regularized as the result of court decisions in the early 1990s—is consistent with this pattern. From 1981 to 1986, for example, the number of employees hired as daily and contract labor increased from 71,000 to 202,500—an increase of over 184 percent. By 1992, the number of these employees had increased by over 228 percent from their base in 1965. Since that time, the number of daily wage and contract workers has declined to its current level of around 60,000, and recruitment in this category has been frozen.

3.25 Several interesting conclusions emerge from the above. First, UP does appear to have undergone a fairly rapid growth in employment during the 1970s and 1980s, which could indeed have had a significant patronage component. However, by the 1990s—the period in which caste politics was becoming more pronounced in UP—much of this expansion had come to a halt. So contrary to the

popular perception, the rise in political instability and caste based politics does not coincide with the mass recruitment of large quantities of lower-caste employees into the civil service.

3.26 However, it has been a potent force in the transfer and posting of senior civil servants. Many educated SC/STs face persistent discrimination in business and are unable to establish a foothold in professions dominated by upper caste Hindus. For them, reservations within the public sector are their only source of meaningful employment, and the activities of parties such as the BSP to ensure adequate representation within the senior civil service are essential. Yet while such individuals have historically suffered discrimination, they are not among UP's poorest. Indeed, the BSP has recently experienced some internal conflict between its Scheduled Caste and Minority Backward Caste membership, with the latter arguing that in some cases its poorer members were being neglected at the expense of policies that favored the Scheduled Castes.

Effective Use of Public Resources

3.27 In Uttar Pradesh, public spending has been far less effective at reducing poverty than it might be. First, the share of economic output taken in tax revenue has been relatively low by international standards. This reflects the poor design of the tax system, poor administration, tax evasion and corruption. It also reflects the under-pricing of the outputs of many public utilities including power and irrigation. More effective resource mobilization is of critical importance in tackling poverty in UP.

3.28 Furthermore, there has been mismanagement of the remaining resources. While UP's budget processes are fundamentally sound, they have changed little since Independence and have failed to keep pace with developments in public expenditure management around the world. This, combined with the spiraling wage bill and the growing burden of debt interest, has contributed to a severe and growing divergence between allocations of public spending on the one hand and the objectives of growth, development, and poverty reduction on the other (Chapter 5).

3.29 This is reflected in the proportion of public spending going to primary education and primary health care, which is low compared with similar parts of the world. It is reflected in the below-average service standards and service outcomes in remote rural areas. It is reflected in the Public Distribution System (PDS), where support is not well targeted and the poorest people are often the least likely to benefit. It is reflected in the high proportion of spending on civil service salaries, pensions and debt interest, and the low proportion of spending on operations and maintenance and capital which typically have a greater impact on poverty reduction.

3.30 Weaknesses in public expenditure management – both budget programming and budget execution – have reduced the contribution that public spending can make to poverty reduction. Expenditure programming has been approached as an accounting exercise, rather than as a tool for achieving policy objectives. The focus has been on inputs rather than outputs and outcomes, with departments asked to explain in great detail what funds will be spent on but not asked to explain their program objectives or held to account for delivery against performance indicators. The focus has been on efficiency rather than effectiveness, with departments challenged to make small cuts to existing programs rather than being questioned on whether the portfolio of programs is the most appropriate one for achieving policy goals. The plan to move to establish zero-based budgeting and to identify clearer performance indicators at local level are steps in the right direction. It is particularly important to evaluate the performance of the public agencies in serving the needs of the poor; there is strong evidence that the needs of the poor are poorly served (Chapters 5 and 6).

3.31 Just as budget programming has failed to take account of policy objectives, it has failed to take account of macroeconomic constraints. Budgets have historically been prepared without reference to a

medium-term fiscal framework, and with highly unrealistic assumptions about revenue receipts. The result of this has been management of expenditure “below the line”, with capital investment and expenditure on operations and maintenance the first items to be cut when revenues fail to materialize. The lack of a multi-year perspective has meant that line departments have been unable to plan ahead with any degree of certainty, and have not been able to plan for the recurrent cost implications of capital expenditure. The establishment of a multi-year Medium-Term Fiscal Framework and the plan to link this to expenditure management through a medium-term expenditure framework are positive developments for the state.

3.32 Budget execution has also been weak. In part, this is the inevitable consequence of poor budget programming. The fact that budget plans have been based on unrealistic revenue forecasts make it inevitable that spending will be managed below the line and that supplementary budgets will be necessary. The fact that no clear objectives or performance indicators are specified makes monitoring and evaluation of outputs and outcomes impossible. As these problems are addressed, improvements to budget execution will become possible. Expenditure control has been weak: until the practice was terminated last year, drawing officers were able to create “Personal Ledger Accounts” in which unspent balances were deposited at the end of the financial year; until the computerization of the Treasuries, also last year, GOUP was not able to monitor expenditure in a timely fashion. Internal audit has been weak, although the appointment of a State Internal Auditor and the allocation of responsibility for internal audit to the Financial Controllers in line departments are steps in the right direction.

C. The Impact of Declining Service Delivery on the Poor: the Case of Justice and Legal Redress

3.33 The deterioration in the quality of public services affects all citizens. However, the burden of poor governance falls disproportionately upon the poor. This burden can fall directly, in terms of greater vulnerability to predatory behavior on the part of government officials, and particularly the police; higher exposure to the costs of corruption; reduced access to goods and services, many of which are of lower quality; the diversion of resources intended for poverty reduction to the wealthy and politically well connected; and a greater risk of prolonged incarceration. Or it can fall indirectly, in that the poor often lack the influence that will allow their interests to be reflected in public decision-making. They lack the resources that will allow them vote with their feet and shift to private health or education providers, who themselves often provide services of poor quality. The poor are typically among the least likely to enjoy access to impartial institutions, such as the courts, who could help redress inequities. They are among the most likely to lack information regarding the options and opportunities available to them.

3.34 Assessments of the problem of corruption indicate that it is a highly regressive tax whose incidence falls most heavily upon the poor. Emerging research from elsewhere in India indicates that the poor often have to work harder to get public institutions to be responsive to their concerns and enjoy lower rates of success (Chapter 1). The proportion of bribes paid as a percentage of their income is highest for urban slum dwellers, a higher proportion of whom pay bribes than general households (Sekhar and Balakrishnan, 1999; Paul and Sekhar, 1999). Equally interesting is the dynamics of protest. Members of the middle and upper classes tended to pursue their protests individually, whereas most slum dwellers who complained did so in a group. These problems of inequities in the delivery of critical services (such as health, education, and potable water), as well as problems of access and quality, will be addressed in greater detail in Chapter 5.

3.35 Perhaps one of the most powerful illustrations of the problems the poor can encounter involves problems related to public security and the right of legal redress. In India as in many countries, the police are the most visible arm of the state, and the one that the poor are most likely to encounter in their day-to-

day lives. India's police practices are increasingly receiving international attention. This burden of poor policing falls disproportionately upon the poor. *Amnesty International's* Annual Report for 2000 (Amnesty International, 2000) on India notes that the socially and economically weaker sections of society continued to be particularly vulnerable to human rights abuses. The report went on to note that attacks on dalit communities and tribal people, often with the apparent connivance of police and local authorities, were commonplace. Women continued to be particularly vulnerable to abuse in these contexts. Access to justice for these victims remained problematic and those engaged in protecting the rights of the most vulnerable groups also came under increasing pressure, often themselves becoming the victims of abuses.

3.36 Anecdotal evidence abounds (including the story in Box 3.4) of cases when the police refused to investigate or file a charge sheet on behalf of a lower caste member who had suffered at the hands of someone from the upper castes. In March 1999, the chairman of India's National Human Rights Commission stated that 60 percent of all police arrests were "unnecessary and unjustifiable," and that the incarceration of those wrongly arrested accounted for 43 percent of the total annual expenditure on prisons. Many of these are on trial for bailable offenses, but lack the wherewithal to afford it (Human Rights Reports for India, 1999).

3.37 Recent survey results from Uttar Pradesh confirm that the popular perception of the police is quite unfavorable (Aims Research Pvt Ltd., 2000). The police were ranked as the most corrupt institution in Uttar Pradesh. About 16 percent of the survey sample claimed to have had personal interaction with the police in the recent past, and of this figure more than three quarters claimed that they had to pay bribes. A full 94 percent of respondents claimed that the police were very or fairly dishonest, and less than 1 percent claimed that they were honest or fairly honest.

3.38 The result of such practices is a growing alienation of the public from the departments that are supposed to serve it. This alienation is particularly pronounced with regard to electricity utilities, as witnessed both in survey data and the lack of public support for the recent strike. But the police are cited in second place, with about 13 percent of the population stating that in the recent past they felt a need but did not contact the police department for reasons of corruption, inefficiency, and harassment. Had they chosen to come forward along with those who did have interaction with the department during this period, it would have represented an estimated increase in the police caseload of about 81 percent.

3.39 Turning to the courts, the judicial system is failing to provide swift and equitable resolution of criminal and civil disputes, and that the poor are most likely to suffer from its shortcomings. There are a number of complex dynamics that limit the ability of the poor to receive timely legal redress. India's judicial back-up is reaching Herculean proportions. Nationally, some 25 million cases are pending. By one expert's calculation, if no new actions are filed, it would take 324 years to clear the dockets (Gangopadhyay, Wadhwa, and Debroy, n.d.). The roots of these delays are pernicious and multifaceted. There is a chronic shortage of judges. India averages between 10 and 12 judges per million inhabitants, whereas many Western countries have between 5 to 10 times that number. There is an overlap of antiquated and frequently conflicting legislation. In as many as 60 percent of the cases, a given government entity is the major litigant as either plaintiff, defendant, appellant, or respondent, with the bulk of this legislation falling in the areas of taxation, credit, rent control, urban land ceiling, and labor relations. Civil code procedures are antiquated and time consuming, and alternative forms of dispute settlement are in their nascent stages.

3.40 It is unlikely that efforts to redress the problems of insufficient judges, inadequate funding, and complex legislation will prove satisfactory in and of themselves, for comprehensive reform will require a fundamental realignment of incentives. As one observer of UP has suggested, an internal balance of

power and interest between presiding officers, advocates, clerks, peons, process servers, judges and munifs is at the core of many problems at the district court level, where the poor are most likely to encounter the legal system (Moog, 1997). The action of presiding officers, who are typically outsiders serving away from their home regions, is often constrained through the influence of more permanent local parties (advocates, clerks, etc.), whose interests lie in increasing filings and appearances, which provides opportunity for greater fees and facilitation payments. Judges and munifs value job security and promotion, and they are generally unwilling to tackle powerful entrenched interests during their limited tenure on any given bench. Frequent transfers and a policy of promotion based largely upon seniority can reduce the incentives for judges to clear their dockets and encourage them to leave the more difficult cases for their successor. Advocates bill by court appearance, they are often tightly organized and cohesive as an interest group, and they are capable of exerting pressure through boycotts and other means that can ultimately have an adverse impact upon a judge's career progression. The net result is for advocate interests and concerns to dominate the judicial process.

3.41 Should the poor ever be unfortunate enough to find themselves in the grips of the Indian criminal justice system, their fate could be uncertain. One expert of the judicial systems noted that people in India frequently go on trial after they have already served the maximum sentence for their alleged crime. Obviously the poor are at a disadvantage; they are the ones who cannot afford to pay bail. India has a relatively low crime rate, with only 325,000 in prison for a nation with 1 billion people. However, in its most recent report, the National Commission on Human rights noted that nearly 80 percent of all prisoners held between April 1996 and March 1997 had yet to be convicted of a crime. These "undertrials" can spend years waiting for their day in court—a fact that is especially troubling because the acquittal rate can be as high as 90 percent.

3.42 Within India, criminal court congestion is particularly bad in Uttar Pradesh. In 1994, more than 111,000 cases were pending before the Allahabad High Court, which enjoyed the most serious case backlog in the country. Of these cases, nearly 29,000 had been pending for between 5 to 8 years.

3.43 The situation for civil cases is only slightly less grim, which makes it extremely difficult for the poor to obtain legal judgments on enforcing contracts or damage awards. A.M. Ahmadi, a former Chief Justice of the Supreme Court and one of the leading experts on court backlog, notes that barring expedited circumstances, it's unlikely a civil case would come to a decision in less than 10 years. Much longer delays are common, as evidenced by a story (Box 3.3) of a minor tort case that has dragged through the UP court system for 39 years.

Box 3.3 Justice in Moradabad, UP

In 1961, an illiterate meat cutter filed a lawsuit against his next-door-neighbor, a milk merchant. The milkman had built a brick wall at the edge of his property, inserting two small drains that emptied into the meat cutter's front yard. Though only rainwater escaped from the spouts, the meat cutter was furious. He had hopes of adding a third room to his modest cement house. With those new drains loomed the probability of irksome seepage.

That was over 39 years and several hundred court dates ago. The original plaintiff and defendant are long dead, but their litigation has plodded onward. Those troublesome drains, while promptly ruled illegal, have remained open while the case continues along on appeal.

The case would seem to be a straightforward matter, and indeed the court decided in the meat cutters favor in 1963. Objections were filed by the merchant, and when those were rejected in 1966, the decision was appealed to the high court in Allahabad. There the case waited 13 years for a hearing, which would have been fine if the paperwork had only been allowed to gather dust. Instead, after the lawsuit's 15th birthday in 1976, a clerk performed his statutory obligation and "weeded out" the less-important documents. At the hearing, the judge then ruled he lacked enough information to decide.

For 21 years the case has been back in the lower court, which has been ordered to reconstruct the file. Each piece of paper is open to challenge, an invitation for delays that makes the defense lawyer grin at the thought of it. "The file will never be complete," he said confidently. Nevertheless, the case appears on the docket once or twice each month only to be adjourned for this or postponed for that. From 1979 to 1990, 15 hearing dates were wasted by lawyer strikes and 13 more when the judge took an unscheduled holiday. Every time the case is scheduled, both the plaintiff and defendant feel obliged to go to court. Clients cannot depend on their lawyers to show up, and, if no one is present, the lawsuit may be forfeited entirely. It is a cumbersome burden for the plaintiff's son, who has meat to cut and customers waiting. On occasion, he meets his opponent in court and they shout at each other. The original defendant died in 1986, and his son now carries the burden of the bequeathed litigation.

Source: Adapted from Bearak, 2000

3.44 The filing of cases, which continues unabated, provides evidence that at least some citizens find the court system to be useful. Yet there is also a broad consensus that it is failing in its mandate to provide effective and timely relief to the poor. The poor seldom use the civil courts. Legal literacy is a great barrier. People are often unaware that a wrong was committed and of potential recourse mechanisms. Within rural areas, caste differences play a huge role: lower castes face severe inhibition in bringing civil action against upper castes, which can often take the form of physical intimidation. This intimidation is exacerbated by the bewildering and overwhelming state system with its formal and informal rules and procedures. Access to the judicial process for the poor is also inhibited by their inability to finance lengthy law suits and by the large distances to travel to reach the *katcheri* (district court). As a result, one student of Indian judicial reform has concluded that, "there can be little doubt that for certain segments of the public and even for many advocates and presiding officers, these [district] courts are often of little value in dispute settlement. For many people, they have effectively lost their legitimacy in the performance of this function" (Moog, 1997).

D. Redressing the Imbalances

3.45 Nehru and the makers of the Constitution designed the Indian State with a clear developmental focus in mind, and each year vast resources are expended with the goal of reducing poverty and protecting the poor. The great majority of this effort takes place within the public sector. It is clear from the above analysis that there is great scope for improvement in the performance of this task. What is less clear is how these problems can best be remedied within a state such as Uttar Pradesh, and how donor agencies can help to advance this process. Nevertheless, some conclusions can be drawn from our existing knowledge and UP's nascent reform experience to date.

Reforms to Strengthen Voice and Participation

3.46 There is a consensus among political and social scientists and activists alike that one of the most important ways for ensuring that the poor are adequately served by government is to ensure that they

participate meaningfully in political life. Participation can take many forms, from planning projects and forming budgets to monitoring implementation and expenditure. The modes of participation can also vary, ranging from simple tools to improve government responsiveness (surveys, focus groups, effective grievance procedures, etc.) to participatory planning techniques ranging up through village counsels in which communal issues are discussed and decided.

3.47 In December 1992, the Government of India embarked upon one of the most radical initiatives for enhancing the access of the poor and disenfranchised to power ever implemented within a democratic political system. It passed the 73rd Amendment to the Indian constitution, which established a uniform 3-tier Panchayat Raj Institutions (PRI) structure across the country, with the village, block and district as the relevant levels of government. The Act provided for direct election to all seats for members at all levels. It also provided that seats would be reserved for Scheduled Castes and Tribes in proportion to their population in the district, and that one third of the total seats would be reserved for women among both the general population and the SC/STs.

3.48 In some respects, the 73rd and 74th Amendments were less a radical departure than an extension of certain practices and precedents that had existed within India prior to the December 1992 Act. Some states, such as Kerala, had experimented with Panchayati Raj Institutions since the 1970s. Uttar Pradesh had initially passed the Uttar Panchayati Raj Act in 1947, which allocated twenty-two designated welfare, regulatory, and developmental functions to the Gaon Panchayat, which also had limited capacity to levy taxes and fees. The 1947 Act was amended several times, however by the 1960s it had ceased to function in practice.

3.49 This effort has not been without its complications in both Uttar Pradesh and other Indian states (Box 3.4). There is evidence, anecdotal and otherwise, of the system being manipulated to maintain traditional authority relations, such as wives occupying positions that their husbands had recently vacated. Evolving survey work in other states (Madhya Pradesh and Rajasthan) indicates that, in spite of relatively high levels of participation, many of the poor feel that Panchayat Raj institutions do not address their needs or reflect their views (World Bank, 1999b). The rewards from participation are perceived to be modest in comparison with other participatory schemes, such as women's savings groups and the Pahal projects, which provide employment. Many of the benefits are captured by local elites and those with political connections, and the structure of meetings is such that the poor typically do not have the opportunity to voice their views in a meaningful fashion. Actual decisionmaking can be non-transparent. Critical information can be withheld on revenues, expenditures, and beneficiary selection. PRI's often have only supervisory authority and have limited control over line departments. As a result, meetings of the local assembly, or *Gram Sabha*, are often poorly attended, with less than 7 percent of the populace attending regularly. The 10 percent quorum requirement stipulated by law is often difficult to achieve.

3.50 Other assessments of India's decentralization effort raise similar cautionary notes (World Bank, 2000c). Accountability mechanisms are weak, particularly those between the *Sarpanches* (or in UP, the *Pradhan* or head man) and the village representatives at the lowest level, the *Gram Panchayat*. Provisions for recall, vigilance committees, or recourse to a higher authority are all problematic. Caste and gender bias pervade the workings of the PRIs, despite the reservations. The overpowering presence of members of legislative assemblies, legislative councils, members of parliament and senior bureaucrats in the District Planning Commission can threaten local decisionmaking. Fiscal and administrative decentralization has not kept pace with political decentralization. Many PRI's lack the capacity to effectively implement the responsibilities assigned to them, which remain under the *de facto* control of the state administration.

Box 3.4 Participation in Local Democracy in Jamalpur, UP

In this poor, muddy village in the heart of the world's largest democracy, Binda Prasad, a burly man whose mustache twirls up in a flourish, tells a story about himself. Four years ago, Prasad, a landless laborer, became the first of his caste to be elected village chief under a new constitutional amendment that guarantees a portion of such positions to people from the lowest rungs of the caste hierarchy. On India's Independence Day, as hundreds of villagers gathered to watch him unfurl the national flag, he sat in a place of honor, at last an equal of the upper-caste men who had always governed.

But at that very moment, he recalled bitterly, a man from the dominant, landed upper caste grabbed him by the neck, threw him from his chair, beat and kicked him and demanded to know how he dared to sit before his betters on a chair, rather than on the ground. The villagers looked on but did nothing to stop the man. Shamed and frightened, Prasad fled. But he did not give up. When the police failed to make a quick arrest, he said, he went to the local leaders of his Party, which is grounded on the votes of humble, low-caste men and women like himself, and they pressed the local authorities to jail the culprit.

"The party's leaders visit this area, listen to the poor people and do anything they can to help us," he said. "When we are subjected to caste atrocities, they console us, get the complaint registered and make sure action is taken."

Source: Excerpted from Dugger, 1999.

3.51 Yet in spite of these problems, many observers believe that over time the 73rd and 74th¹ amendments will fundamentally reshape India's political landscape. Rates of political participation among SC, ST, and OBC are at record highs, and they are now voting in greater proportions than the upper castes. Expectations are increasing. With over 58,000 panchayats in UP, the number of newly elected political leaders runs to several hundred thousand. PRI elections are becoming hotly contested, and politicians with a strong local power base are emerging. Gram Sabha and Gram Panchayat meetings are becoming more regular, and an increasing amount of UP's state tax revenue is being devolved to the PRIs. State policy has stressed openness and transparency. Local administrators, who earlier would have enjoyed relative autonomy, must now contend with a constitutionally sanctioned body. Many of the poor and socially excluded, who would have little chance of holding office under earlier political arrangements, are for the first time obtaining positions of power and influence.

3.52 Any major social change of the type ushered in by the 73rd and 74th Amendments will take decades for its full implications to be felt. This is particularly true in a state such as Uttar Pradesh, where society is highly hierarchical and large cleavages exist between different social groups. Entrenched elites are seldom willing to cede power and status willingly. Effective arrangements for fiscal and administrative devolution take time to work out. There is much that remains to be done to advance the proper assignment of tasks and functions between different administrative layers, then to ensure adequate revenue flows to cover this assignment, and finally to transfer administrative units to the full control of the PRIs. Yet in spite of the current problems and missteps, future historians are likely to view the 73rd and 74th as one of the most important steps towards enhancing the influence of the poor over India's political process and ensuring that their voices are represented in the corridors of power.

Administrative and Staffing Reforms

3.53 There is a need for an integrated approach that seeks to combine reforms at the center of government with sector specific interventions in those areas that matter most to the poor. Many problems confronting the most vulnerable are not unique to them, but merely more severe manifestations of problems that confront nearly all citizens who interact with a public sector that is historically inward focused and non-responsive. The old adage that a rising tide lifts all boats is likely to be true in public sector reform as well as economics, in that interventions that are designed to improve the caliber of the

¹ The 74th amendment of 1996 primarily established special rules for Scheduled Tribe and Scheduled Caste areas.

public sector as a whole are likely to generate positive externalities for those at the bottom of the economic and social hierarchy.

3.54 In an effort to stem excessive centralization and enhance responsiveness to local needs and circumstances, as well as to replicate the popular decentralization initiatives taken in nearby Madhya Pradesh, the GOUP recently enacted some important initiatives in the overall context of implementing the 73rd and 74th amendments. These measures were intended to increase the powers and administrative capacity of the lowest rung of the three tier PRI structure, the Gram Panchayat. They were announced in mid-1999, and their essential features include:

- The transfer of functions to the Gram Panchayats, including (1) primary, upper primary and non-formal education; (2) sports and youth welfare and school maintenance; (3) primary health care, including mid-wives and female health workers; (4) women and child welfare, including Anganwadi workers and assistants; (5) maintenance of handpumps and public tubewells; (6) animal centers and D category veterinary centers; (7) agricultural works at the village level; (8) sanction and disbursement for all social assistance pensions; (9) sanction and disbursement of student scholarships at the primary and upper primary level.
- The transfer of finance and assets necessary to fulfill the functions listed above.
- The provision of one executive functionary for each Gram Panchayat, totaling approximately 58,650 workers, who will be drawn from the consolidated operations of eight departments (Rural Development, Panchayati Raj, Agriculture, Animal Husbandry, Health, Irrigation, Social Welfare, and Sugar Cane).
- The transfer of power to recruit teachers and pay salaries in the area of primary education. (Existing teachers will be paid by the state government until they retire.)

3.55 The implementation of these measures has not been without complications. Politicians at the state level and parliament have been reluctant to see a set of potential electoral competitors emerge at the PRI level. Line Departments have been unenthusiastic about the prospect of releasing finances and personnel, and lower level bureaucrats have resented the imposition of a new layer of accountability. Powerful unions, such as those involving education, are resisting the transfer of recruitment and salary authority to the PRIs. There are capacity problems regarding whether the multi-task employee at the Gram Panchayat level will have adequate training and capacity to fulfill all of his or her designated responsibilities.

3.56 In the face of such powerful entrenched interests, the GOUP recently has diluted or reversed some of these proposed changes. Teachers unions have been particularly influential in blocking a number of initiatives to transfer staff and oversight responsibilities to the PRIs. They halted efforts to turn recruitment over to the local PRIs, and recently stopped an initiative to allow the PRIs to sign off on attendance before monthly salaries would be paid.

3.57 The GOUP has recently considered streamlining its secretariat by combining departments and sub-departments with similar functions under the overall leadership of a principal secretary, who would be responsible for streamlining operations and coordinating service delivery. While limited progress has been made to date in implementing this structure, it represents an important effort to halt the administrative fragmentation and balkanization of the last two to three decades.

3.58 Turning to the question of staffing, the problem within the GoUP's civil service is not overstaffing per se, but that of a high wage bill in comparison with weak revenue mobilization, inappropriate staffing and skills mix, and low productivity. The state has taken some initiatives to curb

these problems. A partial freeze on the creation of new posts was announced in 1986 and has been periodically reinstated. However, the perception is widespread that such restrictions have been routinely flouted. Although the civil service numbers are not wholly reliable, it is likely—as discussed above—that the civil service has been steadily shrinking in size since its peak in 1990. To free up additional resources for high priority development expenditures, the GOUP has agreed to pursue an annual reduction of 2 percent per year for the next four years. It is also considering employment reduction schemes, such as Voluntary Retirement Schemes (VRS), for the core civil service. Furthermore, recruitment into UP's civil service is currently overseen by the state Public Service Commission. There is a general consensus that, while not perfect, at the present time recruitment is by and large open, fair and meritocratic (Yugandhar, 1999; also based on World Bank staff interviews with GOUP officials in autumn, 1999).

3.59 It is important that these macro or structural reforms are carefully integrated with sector specific interventions to improve the quality of regulation and service delivery in areas that matter most for the poor—policing, education, health care, and potable water. Many public sector reform issues, such as streamlining court procedures or ensuring that hand pump mechanics have adequate training, are agency specific and require solutions at that level. The GOUP is currently moving forward with an integrated reform package that seeks to combine fiscal and public sector management reforms across government with sector specific interventions. In light of the mutually reinforcing nature of these changes, this type of intervention holds the greatest promise of success.

Improving the Efficiency of Public Expenditure

3.60 While both budget programming and budget execution have suffered from being over-centralized and insufficiently transparent and participatory, the GOUP is ahead of most states in addressing the centralization problem. Following the 73rd and 74th amendments to the constitution, UP was the first state in India to commit itself to a non-discretionary transfer of funds to the Gram Panchayats, by an amount equal to some 4 percent of tax revenues. However, capacity for expenditure management will need to be built at local level before fiscal decentralization can go significantly further. In the meantime, greater efforts should be made to increase the transparency of the budget and the extent of participation by the different tiers of government, as well as other service providers in its preparation.

3.61 The Government has committed to increase expenditure on operations and maintenance and on services that are particularly important for accelerating development and poverty reduction. To this end, it has identified a series of *High Priority Development Expenditures*, to be protected and, where possible, increased. This is perhaps a worthwhile temporary measure to protect certain categories of expenditure during fiscal adjustment, at a time when overall expenditure management systems are weak. However, in the long term, identification of priority expenditure should not be allowed to become a distraction from the longer-term solution of strengthening overall public expenditure management systems. *All* decisions about public expenditure have implications for the poor, including low-priority expenditure which could have been spent in a more pro-poor way. GOUP needs to establish a Medium-Term Expenditure Framework through which to monitor the poverty impact of public expenditure as a whole.

3.62 As core expenditure management processes are strengthened, GOUP should begin to consider how budget processes can drive public spending proactively in more pro-poor directions. Targeted public spending can be a powerful weapon for attacking poverty. For example, public spending can be concentrated in service areas that are relatively more important to the poor, such as primary education, primary health care and water and sanitation. Spending can be focused geographically on areas where the poor are concentrated, such as remote rural areas and urban slums. In addition, it is important to improve the design, targeting and effectiveness of GOI's Anti-Poverty Programs so that they better serve the needs

of the poor in UP. Finally, by ensuring fiscal discipline and stability, governments can protect the poor, who are most likely to suffer when large deficits and high debt servicing costs require sudden cuts in expenditure.

3.63 In the UK, the Prime Minister's Social Exclusion Unit played an important role in the 2000 Spending Review, participating in the expenditure review committee so as to ensure that *all* public expenditure decisions were "poverty-proofed"; in Orissa, it has been suggested that the state's Poverty Task Force might play a similar role in poverty-proofing the next state Budget. Similar arrangements should be considered for UP.

3.64 There needs to be more emphasis on monitoring the outputs and outcomes of spending on the poor, and not just monitoring the flow of funds. Even if funds reach poor communities, if spent on the wrong things or in an inefficient way, the impact on poverty outcomes may be minimal. Tying public expenditure allocations to outcomes is not an easy thing to do, but investing in the establishment of capacity for performance measurement is a necessary first step. Ongoing efforts to establish a Poverty and Social Monitoring System, discussed in Chapter 1, are crucial if public expenditure is to become a more effective tool for reducing poverty. There are important lessons to be learned from other countries: the Government of Uganda has utilized expenditure tracking surveys to monitor the quality of government spending, for example, by comparing actual resources received at the level of district schools with formal budget allocations. When the exercise was first initiated in 1991, less than 2 percent of the funds intended for non-salary public spending actually reached schools in the districts being monitored. This increased to nearly 30 percent during the five year time period of the study—still woefully inadequate, but a significant improvement.

3.65 Even in situations where formal accountability mechanisms have been weak or non-existent, as is the case with the U.K. Audit Commission, for example, the combination of careful monitoring of performance and publicity has served as a potent force in improving local government performance.

3.66 The GOUP is currently taking a number of important steps to enhance transparency and accountability. It has drafted a Freedom of Information Act, and over sixteen line departments have developed citizen's charters highlighting service delivery standards. The GOUP has issued orders on transparency which makes the posting of work in progress, receipts and expenditure, certified copies of muster-rolls and a list of beneficiaries on bill boards outside the panchayat offices mandatory. The combination of robust performance measures and publicity will build upon this process and provide clearer benchmarks on which to evaluate performance. More importantly, since no government entity wishes to be at the bottom of the list, it will also create incentives for districts, Block Development Officers (BDOs) and village officials to improve their functioning or come under increasingly pressure from their clientele.

3.67 None of these efforts can be divorced from the budget. UP is currently in a state of fiscal crisis, and there will not be large sums of money for major social welfare schemes. It is therefore imperative that the state achieve significant gains in productivity throughout its public sector, which will enable it to redirect limited resources to high priority areas essential for rapid economic growth and poverty reduction. Even more importantly, it needs to ensure a higher rate of return in terms of poverty alleviation for every rupee invested in wages, operations and maintenance, and capital expenditure. The state has committed itself to a major program of public sector adjustment along these lines, whose implementation is still at an early stage. The success or failure of this program will have a significant impact upon UP's ability to improve the plight of its poor.

Chapter 4

ECONOMIC OPPORTUNITIES FOR THE POOR

A. Introduction

4.1 Economic growth is the foundation stone of poverty reduction. Discussions about poverty in Uttar Pradesh often focus on direct poverty interventions – policies and programs designed to uplift the poor and socially marginalized. These programs too easily become the government’s primary vehicle for poverty reduction, and economic growth takes a secondary role. The danger is that this may lead to a situation in which major discussions and decisions on economic policy are made without any reference to the interests of the poor.

4.2 A dynamic economy, growing well, is the strongest force for creating new and better economic opportunities for the poor, enabling greater empowerment, and reducing vulnerability. The key to widening opportunity in general is widening opportunity for women and socially marginalized groups in particular. Where poverty is endemic in the countryside, as in Uttar Pradesh and in India more generally, accelerated growth in rural areas ranks as the first, though not only remedy. In UP’s still heavily agrarian economy, a healthy agriculture sector is needed to power rural progress. But UP’s economy is changing as India initiates a second wave of reforms – cuts in subsidies, better infrastructure, deregulation of goods and factor markets, a better functioning financial system, higher and more effective spending on key services for the poor, and realigning government to focus on core public sector activities – and momentum is gained in the state’s own comprehensive program of reforms. Improvements in the investment climate will stimulate higher growth in the non-farm sector and create new opportunities for the poor outside agriculture.

4.3 Growth can have a greater or lesser impact on poverty. Many of UP’s poor still depend on agriculture where reform has been limited. While exchange-rate liberalization and the weakening of industrial protection have helped, agriculture is still highly constrained by state and central government regulations that limit price movement and intrastate commerce, public procurement, and canalization of trade (World Bank, 1999a). Heavy reliance on subsidies to electricity and a large wage bill, moreover, have crowded out public investment in roads, irrigation, and agriculture technology, have limited funds available for crucial spending on O&M; and have contributed to the low quality of rural power supply. As agriculture continues to stagnate, growth elsewhere has led to some improvement in the pace of poverty reduction statewide. Such a pattern, however, carries the threat of rising inequality, of greater divergence between urban and rural areas, between backward and more progressive regions and between those equipped – with land, education, and access to public assets – to ride a rising tide and those who cannot sail or swim. For example, trade liberalization, combined with deregulation should work to increase exports and imports and drive up the demand for labor. But recent analysis (Wood and Caladrino, 2000) suggests that the demand will be for relatively skilled labor; demand for unskilled and/or illiterate workers is likely to fall. The poverty-reducing impacts of reforms are highly contingent on actions taken now to help the poor acquire the skills they need, provide better access to public goods and services, and remove barriers to using them.

B. Improving the Climate for Private-Sector-Led Growth

Employment Situation

4.4 Three out of four UP workers are either self-employed or work as casual laborers in agriculture. Services, household enterprises and (non-household) manufacturing account for the rest, all activities that have shown only marginal growth in employment in recent years. The service sector and household enterprises account for the bulk of non-farm employment, especially among the poor. Although total employment in (non-household) manufacturing has grown somewhat, its share in total employment hovers at only 5.3 percent. The share of the organized sector is only 6 percent (23 percent of the non-agriculture work force), and most of its increase has been due to the rapid expansion of public sector employment – 300 percent (0.75 million to 2.13 million) between 1960-61 and 1994. Private-sector employment in the same period grew only a modest 50 percent (from 0.35 million to 0.52 million.) The recent slowdown in organized sector employment reflects the fiscal constraints on the state budget, as well as continued sickness in public and private enterprises (Singh 1998). Despite high growth in the 1980s, the structure of industry has become increasingly capital-intensive, restricting employment.

4.5 Rarely found in the formal sector, most of the urban poor are self-employed (56 percent in 1999-00) or casual laborers (24 percent, 1999-00) and involved in petty trade, home-based enterprises and a range of low-paid service activities. There has been a marked trend towards casualization of the workforce, with the proportion of casual laborers in UP having more than doubled from around 11 percent in 1972/73 to almost 24 percent in 1999-00. Moreover, two-thirds of households that primarily earn income from the casual wage sector number among the poor. While factors behind the growing casualization of the urban workforce are not well understood, it is an important area for future urban poverty reduction efforts in the state.

4.6 Casual labor is the recourse of a large number of unskilled laborers, and consultations with a number of the poor in illegal urban settlements found broad agreement that urban life offered a wide range of earning opportunities at wages higher than in the countryside. Informants who said they could earn only Rs. 20 per day in the village are earning Rs. 50 in an urban setting. Many rural-to-urban migrants relocated to urban or industrial centers in search of jobs in manufacturing. A few were successful but the low-skilled among them have little job security. Many older factories have closed due to inefficiencies and are being replaced by modern, high-technology plants that do not employ low-literacy or poorly skilled workers. For men and women with no skills, no connections, and no education, scavenging or begging often provides a basic livelihood. Others used fruit-and-vegetable hawking as a route to upward mobility. It requires little capital to hike or cycle to the suburbs at dawn to purchase vegetables to sell in urban markets. Some of these hawkers may be able to earn enough eventually to purchase a cart and transport more produce, or even set up a small shop.

4.7 Some low income villagers migrated to cities to escape feuds, debts, or oppressive attached labor relationships with upper caste landlords or patrons. In urban areas, low-caste workers say they are less constrained by expectations associated with the traditional social hierarchy, and cities provide some opportunities to escape traditional caste occupations. Particularly those who have settled in mixed-caste neighborhoods and labor hungry employment environments have found employment in sectors and jobs normally associated with higher castes. Many poor urbanites, however, still work in their traditional caste occupations – dairying, leatherwork, musical performance – but, unlike the case in rural areas, have been able to realize a small profit from these activities under the different economic conditions prevailing in the town. An example of the strategic use of a traditional occupation in an urban setting as well as

strategic use of social capital is that of the leatherworkers (one of the poorest and most stigmatized castes) of Hadiganj who, by forming a collective, have made a profitable business of bone and hide collecting and processing.

Box 4.1 The Leatherworkers of Bonetown – An Urban Success Story

About 80 years ago, a group of the most stigmatized of India's caste groups, settled in a peri-urban area of a satellite city near Lucknow. People from this group are typically described as "leatherworkers", in that their traditional occupation is the processing and sale of the products of dead domestic animals. In their settlement, known as "Bonetown", they continued to pursue this livelihood by collecting and processing dead urban livestock, and selling leather and bones. Twenty years ago, 114 families in the settlement formed a Cooperative Society and were granted 10 acres of land by government to establish their collective business. This Cooperative was able to control the market for the sale of bones, aided by the fact that since other caste groups would scorn to enter this occupation, there was very little competition. The Coop is still functioning today, and members believe it has been a force in improving their economic conditions and providing them some measure of security. Some fear that the future success of the venture will be limited by increasing competition and a dwindling supply of animals, while others worry that government will intervene with unfavorable regulations. Nevertheless, the Bonetown Cooperative serves as an example of a case in which, through creation and exercise of social capital, an occupation associated with poverty and social stigma was transformed into a lucrative trade that has provided its members with significant economic opportunity.

Source: Field visits, Study of Urban Poverty in Uttar Pradesh, 2000.

4.8 India's Ninth Plan calls on government to depart from its traditional role of "being a pervasive controller of private sector activity and also a direct producer through public sector enterprises" and rather aim at "enabling the private sector to reach its full potential". This clarion call to central authorities is directed to the states as well. Many face severe fiscal crises brought on by profligate, largely inefficient and misdirected spending in the nineties. Given the fiscal situation in UP, the main thrust for investment and growth must come from outside the public sector. Pursuing credible and systematic market-oriented reforms, the state must open the way for the private sector to reach its full potential. Among these are reforms to promote better governance and reduce excessive regulations, address distortions in factor markets, improve the quality and coverage of infrastructure, expand access to financial services, and improve urban land markets.

UP's Investment Climate

4.9 How does the investment climate in UP compare to that of other Indian states? Very poorly if Business Today's 1999 Gallup Survey of Indian States is to be believed. When CEOs of firms in the manufacturing sector, services, and fast moving consumer goods were asked to rank states in terms of social infrastructure, labor relations, fiscal and other incentives, degree of urbanization, law and order, quality of public administration, political stability and the like, UP consistently came out near the bottom in aggregate rankings, better only than Bihar among major Indian states (Table 4.1).

Table 4.1 Perceptions of the Investment Climate, Rankings for Major Indian States in 1999

	Rank	Rank	Rank
	Manufacturin	Services	FMCG
Maharashtra	1	2	1
Gujarat	2	4	2
Andhra Pradesh	3	1	4
Tamil Nadu	4	3	3
Karnataka	5	5	5
Punjab	6	10	9
Haryana	7	8	12
Madhya Pradesh	8	12	7
Rajasthan	9	7	8
Himachal Pradesh	10	11	6
Delhi	11	6	10
Kerala	12	9	14
Orissa	13	14	13
West Bengal	14	13	11
Assam	15	15	15
Uttar Pradesh	16	16	16
Bihar	17	17	17

Source: Business Today, Gallup Survey of Indian States, December, 1999.

Note: FMCG represents Fast Moving Consumer Goods, e.g. appliances, electronics, personal care products

4.10 A recent study on Karnataka (Box 4-2) identifies key constraints and actions to improve the environment for more rapid growth and poverty reduction in that state. State-level issues are embedded in macro and national policies, i.e. linked to economic and political stability, as well as trade and investment policies. The study looked at the regulatory framework in the state, physical and financial infrastructure, and broader issues linked to the macro and fiscal framework in the state. Many of the lessons from Karnataka apply equally to UP.

Box 4.2 Improving the Business Environment in Karnataka

Issue	List	Key
Labor	Concurrent	Highly inflexible exit policy and rigid labor
Finance	Concurrent	Availability, cost and timeliness of credit facilities, Small Manufacturing Enterprises (SMEs)
Power	Concurrent	Unavailability in supply, high cost for industry (subsidized for some)
Industry regulator incl SSIs	Concurrent	Complex rules and regulations, procedures streamlined
Land	State	Limited supply of serviced land, tenure insecurity, weak laws
Local Transport	State	Inadequate, poorly maintained, leading to delays
Water supply	State	Scarce resource, overexploited groundwater (subsidized power), high cost
Major ports/air markets/highway	Union	Largely government dominated, inefficient, complex regulations, poor O&M
Telecommunications	Union	Most improved of all infrastructure, but problems remain (bandwidth, limited private truly independent & powerful regulator)
Key findings and recommendations from the study include:		
<ul style="list-style-type: none"> • The availability of physical infrastructure – power and water – as well as a skilled and well educated labor force has a significant impact on investment flows into the state as well as the location of new industries. • As the public sector reorients itself, there is an acute need for greater private sector involvement, for private investment to replace public capital. This requires an enabling business environment, including reforms in the regulatory environment. • Despite the availability of skilled labor, unemployment rates remain high among educated youth, largely due to excessive regulations in opening new businesses, rigid factor markets, and infrastructure bottlenecks. These constraints must be overcome in order to foster more efficient labor markets and wider employment opportunities. Employment programs are not the best solution. • Actions to overcome regulations and bottlenecks require decisions at various levels of government. Areas such as air and sea markets, telecom, and small scale industries (SSIs) are within the purview of GOI and not just state governments. Given the trend towards greater decentralization and reform momentum building up in the states, there should be scope for states to push and coordinate reforms in areas that require action by GOI. 		

Source: World Bank, 2000d.

Removing Infrastructure Bottlenecks

4.11 The biggest roadblock, almost literally, to the development of industry and trade in Uttar Pradesh has been the poor quality of local transport infrastructure (roads), water supply and irrigation services that the state, which has concurrent responsibility in the power sector, is charged with providing. Highways and telecommunications are central government responsibilities. In UP, inadequate infrastructure in general, and in particular, the decreasing availability and reliability of power supply and water for irrigation have lowered productivity in agriculture and industry, thereby contributing to lower rates of poverty reduction. Studies for UP have established the pivotal role of physical infrastructure in explaining inter-district variations in overall agricultural and industrial development (Singh, 1997). Electricity, road density and banking facilities explained most of the variation in industrial development across districts (Joshi 1990).

4.12 These and similar local public goods – e.g. roads, communication systems, irrigation, power – strongly influence returns to private capital (Chapter 2). For example, while agricultural terms of trade improved through the 1990s, that betterment has not yet brought commensurately higher productivity and output levels, nor universally lower rates of poverty. Improvements in terms-of-trade through the 1990s were primarily linked to increased agriculture prices, with surplus producing farmers as the main beneficiaries. Those without surpluses have lost in relative terms. Analysis suggests (UP/Bihar Poverty Study, 1998) that the poorest households are most dependent on the market for grain purchases. Non-price incentives, such as under-investment in infrastructure and problems linked to the business climate, are also responsible for this lagging response.

4.13 The lack of adequate infrastructure is particularly acute in rural areas, as well as in poorer and more backward regions of the state. Nearly a quarter of UP's villages still lack all-weather connectivity. Power shortages are endemic, and many businesses resort to using diesel to power their machines, thus pushing up production costs. Small, home-based producers can rarely afford to purchase generators, and the vast majority of the rural poor are not even connected to the power grid. (Chapter 2) While a significant percentage of rural villages are connected to the electricity grid, the vast majority of the poor living in these villages do not have access to electricity for commercial purposes, much less for simple lighting.

4.14 The shortage of critical infrastructure points to the need for reform and the reallocation of public expenditure into both fresh investments and maintenance of existing assets specifically designed in both instances as assistance to the poor. Further, institutional reforms are also urgently needed to ensure an increased role for participatory community involvement in the management and maintenance of local public assets. GOUP has taken a few important steps in this direction, with the transfer of funds required for the maintenance of village roads, e.g., to village panchayats under the recent PRI initiative, but much more remains to be done to ensure that the system works (Chapter 3).

Improving the Regulatory Environment

4.15 Along with infrastructure failures, a variety of factors have combined to discourage the flow of new investment into Uttar Pradesh, with the exception of regions adjoining Delhi. The weakness of governance and the low skill levels of the domestic work-force also play a role. So, too, and powerfully, does UP's rigid regulatory environment, an impediment to private-sector development despite recent, partial moves toward removing the numerous regulations that curb economic activity and impede

production and investment. In the industrial sector, the government has liberalized land purchase for industrial units and introduced a single window system for rapid clearances. It replaced the complex sales tax with a simpler trade tax and modified procedures to discourage evasion. Government orders have also restricted discretionary inspections and streamlined the role of inspectors, reducing harassment to industrial and trade establishments. Labor market rigidities are particularly problematic; these work to reduce formal sector employment and impede growth in exports. A recent study (Beschel and Sundaram, 2002) looked at the causes of over-staffing in the formal sector in three states – Karnataka, Andhra Pradesh, and Uttar Pradesh. In Karnataka and AP, both states with a reasonably good investment climate, many firms over-staffed in anticipation of higher growth in the future. Labor regulations were cited as a cause in 25 percent of cases, and political pressure in 40 percent. In contrast, 100 percent of firms interviewed in UP cited labor regulations as a cause of present overstaffing and 94 percent claimed to face political opposition to laying off workers. While many good laws and measures have been passed or enacted, the main challenge ahead is to ensure effective implementation in practice.

4.16 A number of laws and regulations -- some of them recently revised -- operate in particular against the interests of the poor and restrict economic mobility (Saxena, 1999). Officials urgently need to undertake a systematic evaluation of existing laws and regulations in order to do away with those that curb economic opportunities particularly for the poor. For instance, many of the urban poor live in unauthorized habitations in urban slums. When they engage in street vending and hawking, they are subject to numerous regulations that the police invoke in a fashion that frequently amounts to harassment. Not only should more appropriate regulations be developed, sites need to be available for such petty commerce. In numerous instances, other interests have usurped well-intentioned regulations meant to improve participation by the poor. For example, middlemen have come to dominate weavers' cooperative societies, for example, and provisions of the Cooperative Acts have made cooperatives heavily bureaucratized institutions (Saxena 1999). While licenses for sand quarrying on river beds must by law be given to fishermen, special provisions in the order have opened the room for large contractors to create monopolies and reduce poor fishermen to the status of low-paid wage workers. In short, the better off and more powerful too often can use laws and regulations to do as they like.

Financial Services for the Poor

4.17 India's financial system plays a key role in mobilizing as well as allocating resources for the private sector. Access to financial services is an important means of helping the poor pursue a better livelihood -- to invest, to smooth consumption, and to cope with risk. Access to India's formal financial institutions, however, is far from easy, and borrowing can itself be risky. Getting credit through informal channels, many of the (especially rural) poor are highly indebted, and their responses when asked about better access to credit are enlightening "*We don't want a loan. We don't want to take the risk. We will get half of what we ask for and have to repay everything*", (Consultations in Allahabad district, Srivastava, 1996). In contrast, focus group discussions in urban slum areas suggest there may be greater interest among the urban poor in obtaining credit for productive purposes (Parker, Kukreja, and Kozel, 2001). Although some informants expressed credit wariness, many others were well aware that starting a small business (typically a shop) could improve their economic well-being and were willing to borrow in order to do so. Their statements differed markedly from those heard in similar rural consultations, where villagers have less access to markets and far greater wariness about debt. The urban poor, whose environment is richer in commercial and entrepreneurial opportunities, may be better positioned to productively utilize financial services than their rural counterparts.

4.18 High transaction costs along with absence of suitable collateral are two important reasons why the poor in Uttar Pradesh often have been unable to access credit from institutional agencies. Poor

households tend to be highly dependent on informal sources of credit – the poor are far more likely to borrow than the better off, and those that do rarely rely on such institutional sources as banks and cooperatives (Table 4.2). Access to credit and working capital remains a major problem for new entrepreneurs who do not belong to established business networks. In addition, research suggests that women throughout India have particular difficulties in accessing credit.

Table 4.2 Dependence on Non-Institutional Sources of Credit among Rural Households

Quintile	By Quintile Group		Amount of Land(acre)	By Land-ownership		Social Group	By Social Group	
	% households borrowing:			% households borrowing:			% households borrowing:	
	During past 12 months	From insti'tnal source		During past 12 months	from insti'tnal source		During past 12 months	from insti'tnal source
1 (Low)	67.3	1.8	0 – 5	63.6	1.0	SC/ST	60.1	1.0
2	60.5	1.6	0.5 – 1	59.5	1.6	Muslim	59.6	2.4
3	54.1	2.0	1 – 3	49.4	4.6	Backward-ag	56.1	1.3
4	55.0	3.0	3 – 5	41.6	3.8	Backward-other	51.9	4.1
5 (High)	37.8	7.3	> 5	35.7	11.4	Upper//Middle	42.3	7.7
Total	54.3	2.9	Total	54.3	2.9	Total	54.3	2.9

Source: UP/Bihar Poverty Study, 1998.

4.19 UP's experience with measures meant to open up financial services for the poor has been mixed. While the needs are clear, more work remains in order to assess the most appropriate role of government in ensuring that financial services are available to the poor. Even though GOI microcredit programs like the Integrated Rural Development Program (IRDP) and the Development of Women and Children in Rural Areas (DWCRA) were designed to reach precisely such groups, they evolved into subsidy-based programs in which neither the poor nor those involved in program implementation had any major stake. In addition, these programs tend to focus on credit for investment purposes, while many of the poor are more likely to need credit to finance short-term consumption needs or to cope with shocks. The successor to these programs, the *Swarnjayanti Gram Swarozgar Yojana* (SGSY) retains many of the features of the old programs, including its subsidy feature. While it is too early to judge the program's success, experience from other states in India as well as other countries suggests that purely state-led efforts to provide financial services to the poor have generally not been successful. As an alternative, better linkages need to be established between the formal and informal financial sectors, with a role for intermediary organizations to carry out capacity building and social mobilization to better link up the poor with formal institutions (World Bank, 1999c). In the context of India's safety net programs, Chapter 5 examines existing GOI microcredit programs and highlights a number of non-government group-based credit and insurance programs that have worked well in other countries.

C. Rural Development: Agriculture's Central Role

4.20 Agriculture, including animal husbandry, accounts for 42 percent of GSDP and 75 percent of total employment in Uttar Pradesh. Agriculture's contribution to GSDP has fallen over time – from 52 percent in the early 1980s to 42 percent in the latter part of the 1990s – but the sector's share in the labor force has remained virtually unchanged. The increasingly capital-intensive manufacturing sector is not able to absorb UP's growing rural labor force. Nor is there sufficient growth in other sectors of the economy.

4.21 The state's agriculture policy focuses on (1) intensification of cereal-based cropping systems with the aim of meeting basic subsistence needs and ensuring food security, and (2) diversification of farming systems to promote higher value crops, livestock, and fisheries in regions where conditions are favorable.

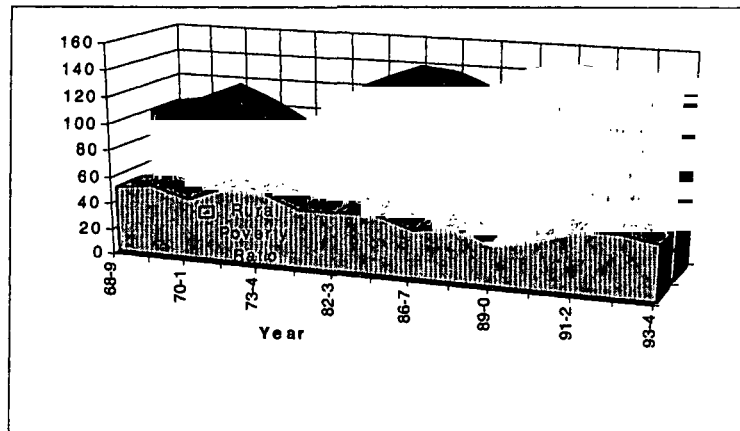
The aim is to expand employment opportunities for the landless and near-landless, thereby helping to reduce poverty. With foodgrains currently receiving over 80 percent of the allocation of public funding, there is an urgent need to mobilize more public as well as private support for agricultural diversification (Sharma, 1996).

4.22 Agriculture in Uttar Pradesh has rich albeit largely unrealized potential. Except for the Hills (excluding its Terai areas) and the Southern region, which are rain-fed and semi-arid, most of the State lies in the fertile Indo-Gangetic Plain with high natural soil fertility and abundant rainfall, and surface and groundwater resources. The significant regional variation in levels of agricultural development and growth over the past three decades is reflected in differential levels of and declines in poverty (Chapter 2). The Western region dominates, both in terms of food grain production (although the gap with other regions has been narrowing) as well as production of other, higher-value crops. History plays a role in this; the Western region was the springboard of the green revolution in Uttar Pradesh, which was biased towards crops such as wheat and sugarcane, already prevalent in the West. Agriculture growth rates were particularly high in the Western region through the sixties and seventies, bolstered by extensive public and private investment in irrigation.

4.23 Due in part to renewed policy concerns with the growing disparities within the state and concomitant increases in public spending, foodgrain production (primarily rice) in the Central and Eastern regions picked up in the eighties. However, progress has remained slow in the poorer Bundelkhand region, and gaps between Bundelkhand and the rest of the state are continuing to widen. By the mid-1990s, crop value per acre in Bundelkhand was on average less than half that for the Western region, while crop value per acre in both the Eastern and Central regions averaged two-thirds that of the West (Bhalla and Singh, 1996). At present, the Western region still dominates in terms of foodgrain production: despite some catch-up in the seventies and eighties, foodgrain yield per acre in the Eastern region is only 80 percent of the yield in the Western region. And the west-to-east gap widens when one considers all crops: the West has witnessed greater diversification of output and has more area under high-value commercial crops.

Effect on Poverty

4.24 Currently and for the foreseeable future, agriculture plays an important role in combating poverty in the state. Its growth not only has a direct impact on incomes of rural farming households; it also stimulates growth in the non-agricultural sector through demand as well as supply linkages and elevates rural wages both directly through increased demand for labor and indirectly through higher demand for non-agriculture labor. Strong production and consumption linkages connect agricultural growth and the non-farm sector, including growth in demand for inputs, services, distribution, and consumer goods. The impact of agricultural growth on non-farm incomes in UP -- already quite substantial -- has been increasing over time, particularly in areas with high incomes from agriculture, better infrastructure, and high rural densities, leading to a high growth of employment in the non-farm economy (Singh, 1998).

Figure 4.1 Poverty and Agricultural Growth in Uttar Pradesh

4.25 The link between agricultural growth and declines in rural poverty is evident both at the level of the state as well as within specific regions of the state. At the State level, poverty has declined during periods of rapid growth in the agriculture sector, while periods of stagnant growth have been associated with increasing levels of poverty (Figure 4.1). Regions with a comparatively high level of agricultural development have lower aggregate poverty levels; high agricultural growth rates (in the Eastern and Central regions from the mid-1970s till the end of the 1980s, e.g.) have been associated with declining poverty. Agriculture laborers figure prominently among the poor: lacking productive assets apart from their capacity to work, almost two-thirds of the agricultural laborers in the state live below the poverty line. Detailed micro-studies have established that even these groups benefit from growth in agriculture. During periods of high growth, such as occurred in the Eastern region during the 1980s, agricultural wages rose due both to increased demand within the sector, as well as indirectly due to higher demand for labor in the non-farm sector (Lieten & Srivastava 1999).

4.26 One of the main reasons that poverty gained so little ground in Uttar Pradesh during the 1990s was that agricultural growth slowed, particularly in the Eastern and Central regions, which house a high proportion of the state's poor. Rural wages likewise grew slowly. That decline in agriculture growth can be traced to several factors. First, there was a slow-down in agricultural investments during the 1990s brought on by the deterioration in state's fiscal position (Singh, 1998), as well as a decline in the efficiency of these investments. Green revolution technology in the '60s and '70s was concentrated in high potential districts. As the technology expanded to lower potential districts, higher investments were needed to yield results. In addition, agriculture in UP has traditionally focused on wheat and rice cultivation; both crops have witnessed a gradual reduction in total factor productivity in recent years. Diversification is essential to ensure renewed growth in UP's agriculture sector, which again requires higher investments e.g. in seeds and research and extension services. While declining public investments in agriculture have been compensated in the country as a whole by rising private investments in specific areas, this has not been the case in UP, where total investment in agriculture has been declining steadily in recent years. This can be traced to inadequate levels of public investment in essential areas like roads, power, and marketing infrastructure, necessary complements to ensure good returns to private investment. Where investments in research, extension, irrigation, and marketing infrastructure made during the 1960s and 1970s stimulated later growth, their relative neglect in recent years now constrains it

4.27 Second, growth in the agriculture sector has suffered due to a deterioration in the composition and efficiency of spending; a high proportion goes to production subsidies (especially irrigation, fertilizer,

credit, and power) that lead to inefficiencies without generating positive effects on poverty and the demand for labor. Government has allowed these subsidies to crowd out crucial investments in roads and irrigation, impact on operations and maintenance, and ultimately squeeze spending in key social sectors and the provision of basic services (World Bank, 1999c).

4.28 In addition, over-regulation in agriculture as well as agro-processing contributes to low growth in the agriculture sector; the regulatory environment is characterized by poor management and pervasive controls on the marketing of agriculture commodities, a situation that taxes farmers as well as consumers. These regulations, lifted when supply conditions are favorable, increase uncertainty and transaction costs in marketing, encourage rent-seeking on the part of officials, and discourage investments and entry by the private sector. Food prices rose in the nineties, which hurt the poor (net purchasers of food grains) in the short run. And inefficiencies in agricultural markets, exposed to external competition, lowered farm gate prices and reduced market opportunities, which served to discourage private investment at a time when public investment was also being squeezed. For rice and wheat in particular, the combined impact of large consumer-price subsidies and buffer-stock costs (India currently has a buffer stock estimated at 50 million tons), inefficient public-sector marketing channels, and highly regulated markets impose heavy fiscal and social costs (World Bank, 1999d). As noted above, diversification into higher value crops has also been taking place only slowly, due to lack of adequate investments in agriculture research and extension, marketing support and infrastructure, and expansion in credit facilities.

4.29 Reversing this trend—as well as improving quality and efficiency to restore high rates of agricultural growth—will require bold thrusts in public investments as well as public policy. A recent World Bank report (World Bank, 1999c) on rural development and poverty reduction India-wide highlights the need for critical action along a number of fronts. In addition, a background paper prepared in support of India's Tenth Five Year Plan (Saxena, 2001) raises similar concerns and notes actions to put agriculture on a higher growth trajectory. These include:

- Cut spending on input subsidies which rarely benefit the poor and impose increasingly serious distortions in agriculture;
- Increase investments in irrigation, seeds, power and roads;
- Improve the use of groundwater, especially in Eastern states like UP. Also improve operations and maintenance of canal systems, involve users groups in management, price water to cover O&M costs;
- Strengthen post-harvest handling and processing, storage/cold storage facilities;
- Support broader provision of more effective and equitable rural services;
- Reanimate the rural financial system, make it more efficient and market-oriented; also improve the state cooperative laws;
- Adjust agriculture price policies, as well as those influencing the rural non-farm economy to encourage growth, diversification, and private investment in agriculture.

4.30 While GOI has a role in developing policies and regulations for the agriculture sector, state governments have an essential role in implementation and enforcement. State involvement has focused on technology development and transfer, delivery of (primarily surface) irrigation, and power. Irrigation and other physical infrastructure are in urgent need of higher and more efficient public investment, in particular for power (for irrigation) and market roads, as well as agricultural research and extension. Steps should be taken to deregulate in favor of the poor, improve access to credit and financial services, and undertake institutional as well as land reforms. The discussion in the remainder of the section focuses primarily on priority measures for the state.

4.31 **Irrigation** has a strong impact on agricultural productivity and growth. An estimated 70 percent of the state's total cropped areas is irrigated. The highest proportion of irrigated area is in the Western region (81 percent), followed by the Central region (66 percent), the Eastern region (61 percent), and the Bundelkhand and Hills (38 and 35 percent, respectively.) Both canal irrigation and use of private tubewells expanded rapidly through the eighties in UP's poorer regions, helping to close the gap with the West. However, total public investments in irrigation in Uttar Pradesh have fallen in the past few years without private action taking up the shortfall. Private investment is essential for groundwater irrigation, while public investment supports surface irrigation. The number of private pump-sets and tube-wells installed since 1990 and additional irrigation potential created in medium and large projects has declined, particularly in the latter part of the nineties due in large part to the worsening fiscal situation.

4.32 Water management is a particular problem; the utilization rate of the canal irrigation system has fallen over time, groundwater resources are inefficiently exploited and inequitably shared. Power shortages that have made irrigated agriculture highly risky in areas primarily dependent on groundwater supplies have resulted in lower yields and overall productivity. More effective management of groundwater exploitation is essential throughout the state, but particularly in Eastern UP where poverty levels are high, average land holdings are falling, and small and marginal farmers currently account for over 80 percent of agricultural households.

4.33 While UP's current fiscal crisis makes it unlikely that public investments in irrigation will increase dramatically in the short run, a number of important cost-saving and revenue-enhancing measures can markedly improve public irrigation infrastructure in the state. An example: giving priority to better system maintenance, particularly canal irrigation, can lead to substantial water savings. By raising more resources through user charges in public irrigation from those who benefit from its provision, the government would be better placed to cover critical O&M expenditures. Finally, more efficient local water markets as well as effective community management of irrigation resources could bypass bureaucratic problems and overcome free-rider issues inherent in such management. Careful attention in the course of such a transition needs to be directed to institutional design and incentive issues to ensure that bodies such as Water Users Associations (WUAs) in the state function effectively on a self-sustaining basis. Critical problems of water and land management in several regions of UP require supporting public investment and institutional structure. Where some of these problems have been addressed (as in the UP Sodic Lands Project, Box 4.3), there has been a significant impact on production and productivity even on very marginal lands.

Box 4.3 UP Sodic Lands Reclamation Project I and II

Out of UP's 1.2 million hectares (ha) of sodic wastelands, the UP Sodic Project I aimed to reclaim about 68,000 ha on a sustainable basis. A socio-economic study established that about 95 percent of land-owners in sodic areas were small and marginal farmers with average holdings of 0.4 ha with low productivity of crops, mainly paddy. A majority, mainly migrant workers, lived at subsistence level marked by high indebtedness and poor access to institutional credit. The project started in 1992-93, and by September 1999, 64,736 ha of land had been reclaimed by 16,660 water user groups (WUG) benefiting in the process over a million people in about 220,385 families. Reclamation of these lands raised productivity of paddy and wheat to 3.74 and 2.63 tons/ha respectively in the year 1997-98 (compared with State average of 3.22t/ha and 2.4t/ha) and spurred diversification to high-valued crops like *aonla*.

This significant achievement was possible because of beneficiary-led on-farm reclamation, institutional development of the implementing agencies, reclamation technology development, and agricultural development and technology dissemination. NGOs were brought in at the beginning to launch awareness campaigns and to motivate the communities to participate in the program. Beneficiaries provided labor and some amount of cash input while the project provided technical and material assistance (gypsum and HYV seeds). Initial emphasis was on sustainability through group activity which started with WUGs managing their own fields, constructing and maintaining field irrigation and drainage channels. Later activities like credit management for production services were also pursued through the formation of Self Help Groups, mainly of women. Sustainability issues are being further addressed by linking beneficiaries with line departments like Agriculture and Irrigation. A major risk to project sustainability is adequate maintenance of the main drains by the Irrigation Department so that sodic effluents will be properly discharged. Independent monitoring and evaluation by the Indian Institute of Management, Lucknow, on process (implementation monitoring) and socio-economic assessment assists project management in addressing issues as and when they arise.

Source: World Bank project staff

4.34 Rural Roads are inadequate in many regions of the state, and many that connect rural communities are impassable during the rainy season. Inadequate maintenance contributes to rapid deterioration; it is estimated that poorly maintained roads increase transport costs by 30-40 percent (Sharma, 1996). Ownership of inter-village roads is ambiguous and local (typically earthen) roads constructed under rural works schemes (e.g. JRY, EAS) tend to wash away after the first heavy rains. It is important to increase both budgeted levels of spending for O&M and ensure that earmarked funds are not diverted for other uses.

4.35 Marketing Infrastructure requires extensive upgrading. As agricultural diversification and commercialization gain momentum, the need for better post-harvest handling and marketing becomes crucial. Creation of better common physical and post-harvesting facilities in the *Mandis* (wholesale markets),¹ modernization of the market information base and reform in the *Mandi Parishads* (executive boards) are all urgently needed. In addition to increasing the efficiency of public investment, it is crucial to mobilize private-sector investment, particularly to support expansion of agro-based industries. In order to do so, deregulation and greater simplification of rules, regulations, and licensing procedures should all be urgent goals.

4.36 Deregulation has begun with Central and State governments during the last few years lifting a number of controls on trading, storage, and processing of agricultural produce, although many laws and controls are still in place that unduly restrict economic activity (Box 4.4). Grain storage, for example, is still subject to state ceilings; rice processing is subject to a levy, and crushing of rapeseed and groundnuts

¹ *Mandis* are wholesale markets that are supposed to be equipped with grading, cleaning, and packaging facilities, market information systems, and auction facilities.

is still subject to small-scale reservation. Regulated markets, moreover, impose a mandi tax every time grain is resold, sometimes resulting in multiple taxation.

Box 4.4 Licensing Laws in Uttar Pradesh

The UP Scheduled Commodity Dealers (Licensing and Restriction) Order, 1989, requires a dealer to obtain a license if s/he carries on the business of sale/purchase of certain scheduled commodities in specified quantities (for example 10 quintals or more of foodgrains of any kind). It also restricts forward trading in such commodities.

The UP Flour Mills Licensing Order, 1966, requires the owners or persons-in-charge of a flour mill, if operated by electricity or mineral oil, to obtain a license from the District Magistrate. The power of entry, search, and seizure has been given to Food Officers.

UP Rice and Paddy (Levy and Regulation or Trade) Order, 1985. As per this order, every licensed miller shall sell and deliver to the government, at the notified price, sixty percent of each variety of rice (relaxed to 40 percent in the Varanasi and Gorakhpur zones). The movement of rice or sale of rice can be done only after obtaining a release certificate from the government.

U.P. Regulation of Rice Hullers Order, 1975. Under the order, a permit or license has to be obtained under the Rice-Milling Industry (Regulation) Act, 1958, for running a rice milling operation. Additionally, the miller has to comply with the provisions of the UP Rice and Paddy (Levy) Order, 1985.

Source: World Bank 1999d.

4.37 Removing obstacles that hinder the poor as well as deregulating markets that work in favor of the poor would also help expand economic opportunities. For example, easing licensing restrictions on milk-processing capacity in Uttar Pradesh has led to a doubling of such capacity within four years. This has had a tremendously beneficial impact on the livestock economy in the state, which has been largely dependent upon female labor; yields and returns have increased along the milk routes and collection centers. In addition, research suggests that maintaining livestock, and in particular milch animals, can provide informal insurance and thus help poor households cope with unanticipated shocks.

4.38 **Second-Generation Agrarian Reforms** that impact on the structure and regulation of the land market could aid the landless and near-landless. Poverty is strongly associated with the total amount of agricultural land owned by a household; farmers owning less than 0.4 hectares of land are more than twice as likely to be poor as those with two or more hectares (Chapter 2). With increased subdivision and fragmentation of landholdings over the years, nearly three-quarters of households in 1999-00 owned less than 1 hectare of land (Table 4.3) as compared to two-thirds of households in 1993-94. To put this in perspective, the minimum viable economic landholding in the state is estimated to be 1-1.5 hectares on average². State-wide, land holdings average only .7 hectares per household; there is not enough land to ensure dramatically improved incomes for the poor through large-scale land redistribution. In any case, large-scale land redistribution has proven to be politically and socially unfeasible in Uttar Pradesh, as in a number of Indian states.

² These figures represent state-level averages. Less land would be needed in fertile areas with good access to irrigation.

Table 4.3 Land Ownership and Poverty – Rural Uttar Pradesh

Amount of Land Owned	Percent of Rural Population Owning Land (1999-00)		
	Non-Poor	Poor	Total
No land owned	4	4	4
0 – 0.4 hectares	37	58	44
0.4 – 1 hectares	27	24	26
1 – 2 hectares	16	10	14
2 – 4 hectares	10	3	8
4+ hectares	4	1	3
Overall	100	100	100

Source: NSS 55th Round, 1999-00

4.39 Notwithstanding the limited potential of redistribution, reforms in the structure and regulation of the land market may offer scope for improving productivity, particularly measures that facilitate the operation of land by medium and small self-cultivating farmers. A significant proportion of the land in the Central, Eastern and Southern regions is owned by upper-caste farmers, whose social and cultural practices restrict their participation in various types of manual labor (See, for instance, Saxena and Srivastava, 1995).

4.40 In many instances, these upper-caste farmers are non-resident and, in the absence of a vigorous land market, they often lease out their land surreptitiously or leave it fallow. Cropping intensity and labor use on such farms thus tends to be lower than on those cultivated by their owners. On the other hand, the excess demand by small landowners and the landless for cultivable land is only partly met through leasing in of land under insecure and onerous conditions. Small landowners often lack access to appropriate forms of credit and hence find it difficult to raise the money needed to purchase what little land is available on the market. Land markets tend, as a result, to be quite sluggish. As a remedy, bold GOUN initiatives could make leasing legal and secure in the state as well as facilitate land transfers. Improving the operation of land markets is likely to require vigorous credit and marketing support, more effective implementation of new regulations, and significant overhaul and improvements in the land registry system.

4.41 **Mitigating Risk** can stimulate increased and more efficient production. Agriculture is inherently risky. Sources of ground and surface water can be intermittent and unreliable, weather is uncertain; livestock are subject to illnesses; and producer prices vary for many reasons. Diversification itself can be risky, and farmers with smaller land-holdings may be reluctant to take on the risk. More emphasis on high-quality R&D in agriculture, as well as better dissemination of findings by agricultural extension workers is likely to help speed this transition. As well, there may be scope for developing a more widespread system of crop insurance. Efforts in this respect have thus far been limited.

D. Expanding Rural Off-Farm Opportunities

4.42 Growth in the agriculture sector is an important but not sufficient condition for combating poverty. Increasing employment and raising incomes for rural households depends critically on growth in the rural non-farm sector, which reduces poverty both directly – by providing employment – or indirectly – by raising agriculture wages (World Bank, 1999c). In consultations with the rural poor, many respondents highlighted the non-farm sector as a critical route out of poverty and a way of moving beyond the often confining, traditional village economy. This view was particularly strong among

individuals at the bottom of the caste hierarchy. In recent years, a growing number of agricultural households have diversified into small, part-time or seasonal activities and even full-time salaried or professional jobs and businesses, often as a complement to farming. Wealthier households earn income primarily from farming and salaried employment; for the poorest households with little or no land, non-farm casual employment can provide a last-resort source of income – e.g. due to seasonal fluctuations in agriculture employment. However, no matter what the nature of work undertaken, non-agricultural opportunities are valued highly by households, as they allow them to increase incomes at the margin, as well as minimize risk through diversification. As the rural economy becomes more diversified, the share of income derived from non-farm employment has been rising in recent years for both the poor and the better-off.

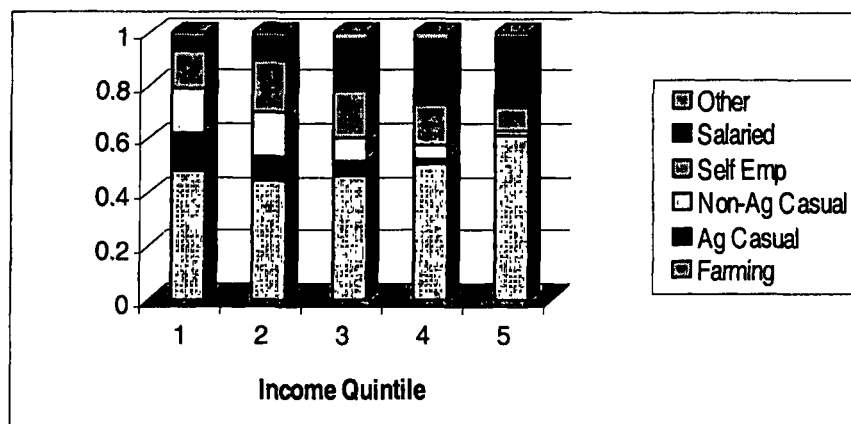
4.43 The UP-Bihar Poverty Study provides some recent evidence. In this sample, average returns from non-farm activities are generally higher than wages paid to agricultural laborers (Table 4.4). It is clear that those fortunate enough to obtain good off-farm opportunities -- salaried jobs in particular -- are likely to see their economic conditions improve significantly. Even in the case of casual non-farm work, however, earnings per day for work outside agriculture were almost twice those of agricultural workers. In Uttar Pradesh, however, opportunities are not growing as rapidly as they might. The process of diversification towards non-agricultural employment has been much slower than in several other Indian states.

Table 4.4 Work Intensity and Earnings – Rural Uttar Pradesh

Type of Work	Average number of Days worked per year	Average Earnings Rs./day
Agricultural labor	83	24
Non-agriculture labor	131	44
Salaried employment	246	117
Self-employed	134	114

Source: UP-Bihar Poverty Study, 1998, survey tabulations.

4.44 Research (Lanjouw and Sharriff, 2001) offers additional insights into the importance of the non-farm sector to rural poverty reduction in UP and throughout India. According to data collected by the National Center for Applied Economic Research (NCAER) in rural India in 1993/94, non-agriculture income accounts for roughly 40 percent of total rural income in UP. This compares to about a third of income for rural India as a whole. Households in the top 20 percent of the per capita income distribution in rural Uttar Pradesh were mainly dependent on cultivation incomes (61 percent) and salaried non-farm employment (26 percent). The poorest households, in contrast, received less than half of their income from cultivation, and were also heavily reliant on casual agricultural wage employment (contributing 14 percent of total income) and casual non-farm wage employment (16%). For the poor, salaried employed accounted for barely 5 percent of total income.

Figure 4.2 Uttar Pradesh: Rural Income Shares by Per-Capita Income Quintiles

Source: NCAER Rural Survey, 1993-94.

4.45 Although the rural poor are disproportionately found in many low-paid, insecure jobs in the non-farm sector, many of them envision economic betterment through regular, salaried employment outside the agriculture sector. A variety of barriers stand between them and the realization of their vision even if economic opportunities were to multiply in the countryside.

4.46 First and foremost, schooling matters. Controlling for a wide range of household characteristics, the illiterate (many of the poor in north India) face a probability of salaried non-farm employment one fifth as high as those who have completed schooling – 5 percent compared to 26 percent respectively. Even for a person with only primary schooling, the probability of salaried employment is less than half as high (5 percent compared to 10 percent).

4.47 Social identity matters as well. Assuming no differences in education levels nor any other household assets such as land holding, scheduled caste households were found to be slightly less likely than other households to be employed in salaried non-farm activities. Given that the scheduled castes generally face constraints in acquiring the education levels necessary for non-farm work, their overall handicap is more marked. Further, research into the process of job acquisition has found that social networks are important in gaining access to employment outside the village and that low caste/status households appear to have less access to such networks. In rural consultations, a number of respondents cited the importance of bribes in helping to obtain well-paying jobs, including jobs in the government sector. Others claimed to face explicit discrimination.

4.48 Finally, per-capita land holdings, a proxy for wealth, were also found to adversely influence the probability of obtaining salaried employment. Thus, while the non-farm sector could in principal offer an important route out of poverty, a range of factors – some most likely discriminatory – often combine to limit access of the poor to precisely those non-farm activities that could most significantly raise their incomes and improve living conditions.

4.49 The non-farm sector can also influence poverty levels indirectly. Casual agriculture labor is one of the main sources of income for the poor. Econometric analysis suggests that agricultural wage rates in India's villages are strongly and positively related to the percentage of villagers employed in the non-farm sector, controlling for agriculture yields as well as population density. In Uttar Pradesh, for example, a one-percent increase in the village labor force primarily employed in casual construction work was found

to be associated with raises in average daily agricultural wage rates from Rs 22 to Rs 25 and from Rs 25 to Rs 30 in sowing and harvesting activities, respectively. The linkage suggests that by tightening village labor markets and raising wage rates in agriculture labor, an expanding non-farm sector can help to reduce poverty even for those poor not directly employed off the farm. This finding also gains support from village studies that have documented the expansion of non-farm activities occurring alongside a general rise of agricultural wage rates (Jayaraman and Lanjouw, 1999, and Lanjouw and Stern, 1998).

Priorities for Action

4.50 Three main factors determine whether the non-farm sector can grow and work to reduce poverty. First, ensuring high rates of growth and surpluses in the agriculture sector will stimulate growth in the rural non-agriculture sector due to multiple and strong production and consumption linkages. Second, there is a need for adequate social and physical infrastructure to ensure the conditions for broad-based growth and good investment opportunities. And third, policies and spending patterns must be put in place to ensure that the rural non-farm sector has the capacity to adjust and modernize in response to conditions brought about by globalization, increasing competition, and changing demands from consumers (World Bank, 1999c).

E. Widening Opportunities for the Socially Excluded

4.51 Social identity has fundamental effects on welfare levels but, since its impact through the economy is less clear, it is uncertain what measures would ensure more equitable outcomes for the socially stigmatized – in particular women and lower caste individuals. The issues are complex and beyond the scope of the present report. This section merely highlights some key concerns and suggests directions for policy change.

Expanding Opportunities for Women

4.52 With a significantly larger proportion of female workers concentrated in low-paid casual work, primarily in the agriculture sector, compared to men, the rate of female increase in labor force participation in the non-farm sector has been relatively slow. As of 1993-94, only 10 percent of rural female workers were engaged in non-agricultural activities. In consequence, there has been a feminization of the agricultural workforce, and the proportion of both female cultivators and female agricultural laborers has grown. One possible cause of this shift is male migration in search of better-paid off-farm employment. As men leave their areas of origin to seek higher wages, many women are left behind to take up casual employment in the agriculture sector -- low paid, low status, dead-end work (Box 4.5). Cultural factors constrain women's ability to move freely for economic purposes.

Box 4.5 Workforce Participation of Men and Women in Two Poor Regions of UP

The UP/Bihar Poverty Study highlights dramatic differences between male and female participation in economic activity in the Eastern and Southern regions of UP.

- Women are employed for fewer days and more often on a part-time basis than men. Only 9 percent of women (older than 15 years) were main workers, employed for more than 183 days a year, compared to 44 percent of men.
- In addition, there are striking differences in the workforce participation rate for women across social groups. Including main and marginal workers, participation rates range from 13 percent for upper-caste women to 51 percent for SC/ST women.
- Women workers were far more likely to be in agriculture and working as agricultural laborers than men - 85 percent of female workers were in agriculture, compared to 47 percent of male workers; 43 percent of female workers were employed as agricultural laborers compared to 13 percent of male workers. Fifty-eight percent of all workers whose principal occupation was agricultural labor were women but only 7 percent of non-agricultural laborers were women. Along with lower-caste workers women form the mainstay of the agricultural labor force.
- Female workers received lower wages compared to men in all major occupational groups. For instance, in the study districts, female agricultural daily wages averaged Rs 22 compared to Rs. 27 for men, while wages for the few females doing casual work outside the agriculture sector averaged Rs. 31 compared to Rs. 45 for men. Female salaried workers obtained an average monthly salary of Rs. 1913, compared to Rs. 2536 for men.

Source: UP/Bihar Poverty Study, 1998.

4.53 Among measures to redress the situation and expand economic opportunities for women, a first step -- vital to their security and their economic potential -- should ensure women's right to possess productive assets. Both customary practice and the legislative framework often function to deny women equal rights to assets. Until recently, the *Zamindari* Abolition Act prevented a female child from inheriting agricultural land except where there are no male heirs (Saxena 1999). Similar provisions in other laws debar women from claiming their rights to property. Even where legal claims exist, women may find them unenforceable. Denial of an equal right to own and manage assets reduces women's scope to improve their own and their family's well-being, and also limits their contribution to economic growth overall. In addition, it encourages the institution of dowry, damaging to women in a variety of ways.

4.54 Government policy has focused on the development and implementation of specific interventions aimed at increasing women's access to assets, with a number of programs extending financial assistance to women (Chapter 5). The Integrated Rural Development Program (IRDP) had set a target of 30 percent female beneficiaries, while Development of Women and Children in Rural Areas (DWCRA) program help was provided only to women. Government assistance programs under the Indira Awas Yojana (IAY) and land distribution stipulate that the titles to redistributed land must be in the name of women or jointly in the name of a couple rather than just the male head of household. The new Swarnjayanti Gram Swarozgar Yojana (SGSY) program is also oriented toward women's self-help groups. Although the success of these schemes in expanding women's rights over assets remains to be fully evaluated, some impact assessments have been performed. Unfortunately these assessments generally indicate that the relatively modest targets of these programs have not been fully met.

4.55 Gender bias in recruitment and hiring must be corrected. Few women in UP have jobs in the organized sector; the all-India figure for women's participation in this sector is almost double UP's, and the state compares even more poorly with the southern states on this score (Table 4.5). This is the case even in sectors of the economy where women are heavily involved as producers. For example, women play a prominent role in the livestock and agricultural sectors, but their presence in the associated government departments is negligible. Of the 1900 gazetted officers in the Animal Husbandry Department, only five were women; there were none among the non-gazetted staff of 5832. If women were better represented in the agencies that regulate the sectors in which they find their primary

livelihoods, these agencies might be more responsive to women's concerns and requirements.

Table 4.5 Percentage of Female to Male Employees in the Organized Sector

	Public Sector	Private Sector	Total
UP	9.3	11.2	9.7
Karnataka	23.2	64.1	36.8
Tamil Nadu	32.0	40.5	34.8
Kerala	34.4	84.8	54.2
India	15.7	26.7	18.8

Source: NSS 50th Round, 1993/94.

4.56 An essential measure is to build women's human capital. As discussed earlier, enrollment rates of girls are beginning to catch up with enrollments of boys, particularly in urban areas. Nevertheless, disparities still exist, particularly among the poor and low-caste communities (Chapter 5). Formal schooling is necessary but not sufficient to equip women to take advantage of new economic opportunities: other components of human resource development are needed as well, such as vocational and other training, skills acquisition, capacity building and empowerment to participate more effectively in the affairs of the community. All these elements of human capital enhancement require urgent emphasis and priority.

Expanding Opportunities for Other Socially Stigmatized Groups

4.57 Disquieting evidence demonstrates that SC/ST households not only have lower endowments of private assets and less access to public assets, but also appear to receive lower returns on the assets they do possess (Chapter 2). Although the traditional occupations associated with India's various castes and sub-castes generally do not determine the livelihood of individuals in today's modernizing economy, nevertheless members of caste groups traditionally stigmatized as "low" are still clustered in less desirable and lower paid activities. Except in the case of agricultural labor, where all workers earn equally low wages, SC/STs earn less on average than do individuals from upper castes in all other occupations in rural areas. Other Backward Castes (OBCs) and Muslims face similar although not as extreme earnings differentials.

4.58 Although caste-based discrimination has been illegal for decades, there is evidence of lingering bias against lower caste candidates in hiring, admission to institutions of higher learning, etc. In acknowledgment of this problem, the GOI has designated a list of specific social groups (viz. Scheduled Castes and Scheduled Tribes) as particularly deserving and has developed a series of policies and legislative initiatives designed to ensure that members of these groups are represented at all levels of society and public institutions.

4.59 The impact of these government policies and initiatives in subverting a traditional system that trapped many in low-paid, low-status service occupations is difficult to document; outcomes are likely influenced by a combination of modernizing social and economic changes, not just specific government policies. But these "affirmative action" measures, though sometimes controversial, have opened economic and political opportunities to many SC/ST individuals. Despite this, the report documents a range of economic outcomes that suggest a still-significant gap in the opportunities available to some groups in the state.

4.60 In addition, it is not certain that affirmative action policies will have indefinite political support. The question of whether quotas and reservations should be temporary or permanent and if temporary, how long they should continue, has been raised in recent political debates. In some quarters, affirmative action is thought to be ineffective and even counterproductive if it does not lead in time to a system of open competition. Affirmative action in hiring, in fact, is unlikely to fully solve the problem of differential access to opportunities based on social identity, unless matching initiatives improve individuals' qualifications and preparedness. Some evidence suggests, for example, that certain types of positions reserved for SC/STs are perpetually vacant. The advocates of affirmative action see in this a result of official negligence, but another explanation commonly advanced is that the pool of highly educated and experienced SC/STs who are qualified for these positions is actually very small.

4.61 These questions will not be resolved here. However, it is clear that if SC/ST households do not invest more heavily in education, relatively few of their members will ever enter or remain in the educational system long enough to take advantage of current reservations in the university or public sector employment. The failure to develop their human capital is part of a vicious circle. Because of discrimination, either perceived or actual, SC/ST households do not expect returns to investments in education commensurate with those of other households. Discrimination, then, serves as a constraint to investments in education. To the extent that affirmative action ameliorates the effects of caste bias, it may motivate the disadvantaged to invest in education. To be most effective, however, measures aimed at improving the enrollment and retention rates of SC/ST children must begin very early in life, focusing at the local level. The actions could include (i) special scholarship programs (existing programs are ineffective); (ii) early childhood education programs targeted to at-risk children; and (iii) stipends and other special incentives.

Chapter 5

STRENGTHENING DELIVERY: SOCIAL SERVICES AND SAFETY NETS

A. Introduction

5.1 The quality of what government does or fails to do at the local level matters directly to the lives of the poor. For them – though not only for them – government needs to provide adequate medical facilities, good schooling, safe water, reliable police protection, passable roads and affordable irrigation. Particularly for the poor, government should also maintain safety nets that effectively protect the elderly, destitute, and others not able to look after themselves.

5.2 Social services – health, education, social welfare programs, and safety nets -- are critical for individual and common well-being. Among them, education and health are concurrent responsibilities; GOI plays a part, but the state's role is central. Responsibility for India's wide range of Anti-Poverty Programs (APPs), on the other hand, rests primarily with the central government. This chapter focuses on health and education services, basic keys to accelerating broad-based growth and unlocking the grip of poverty, and on actions and policies to improve UP's performance. In addition, it briefly examines India's formal and informal safety nets, with a focus on the APPs and their role in reducing vulnerability and risk. These schemes are designed and primarily financed by central government; the state is responsible for implementation, but has little flexibility to adjust the programs to suit local needs and conditions.

5.3 Including social services and entitlement programs and centrally-sponsored antipoverty schemes financed through Rural Development, the flow of funds for pro-poor interventions declined marginally as a share of public outlays through the 1990s. Some modest recovery took place by the end of the period (Table 5.1); however, the government was borrowing heavily not only to finance public investment but also a rising proportion of recurrent costs. As a part of UP's recent reform process and with the aim of accelerating economic growth and improving social indicators, the state plans to increase outlays on high priority social-sector spending and programs, including elementary education, health and social safety net expenditures.

**Table 5.1 Government Spending on Social Services and Social Protection
(Percent of GSDP)**

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 (RE)
Uttar Pradesh	6.6	5.5	6.1	5.4	5.5	5.1	5.0	5.1	5.7
Education	3.5	2.9	3.3	2.7	2.9	3.0	2.9	2.8	3.5
Health	1.1	1.0	1.0	1.1	0.9	0.9	0.9	1.0	0.8
Social welfare programs	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.7
Rural Development	1.6	1.2	1.4	1.1	1.2	0.7	0.8	0.7	0.7

Source: Reserve Bank of India

5.4 In addition to the level of spending, the *quality* of spending -- its efficiency and responsiveness to the needs of the poor -- is at least as important and, arguably, more so. On both counts – quantity and quality -- however, the record in Uttar Pradesh has been disappointing. High (and rising) levels of enrollment in private schools – the highest in India – suggest growing parental dissatisfaction with the

quality of public education. While programs like the District Primary Education Project (DPEP) have had impact in some districts, these successes are offset by continuing low levels of school enrollment by poor children, especially girls, in other districts. In the primary health care system, inadequate financial support has led to staff shortages so acute that in 1997 two out of every five Medical Officers' positions were empty. And funding for public health has been so inequitably distributed that over 40 percent of its benefits accrued to the wealthiest 20 percent of households, while only 10 percent of benefits reached those in the poorest quintile.

5.5 In all public services, the responsiveness of officials to their clientele is a key consideration but one that is often honored only in the breach in UP. Even where services are available, villagers often do not know whom to approach for access to them. In the case of special area improvement schemes, for instance, the rural poor typically do not know how to get a grant or loan to build a tubewell, or how to finance the repair of older ones. Although a high percentage of widows surveyed in the UP/Bihar Poverty Study knew that they were eligible for some kind of benefit from the state, very few had applied and even fewer had received the payments due to them. Dealing with the government bureaucracy is often complicated. Officials from a variety of departments may be involved in overseeing the provision of a given service; as a key player in finding land for the Primary Health Care centers at the Block level, the Revenue Officer, for example, plays a vital role in their location.

5.6 Corruption within the line ministries also affects the availability of the services for the poor. Medicines looted for sale at a better price in the private sector, for example, do not get distributed for free at the block level. And there have been reports of alleged collusion between proprietors of non-existent private schools and officials responsible for verifying their existence and distributing scholarship funds. The victims of these corrupt practices are not just UP taxpayers but the thousands of poor and low-caste children who do not receive the services they are entitled to.

5.7 The impacts of public expenditures on poverty is not limited to specific antipoverty programs or targeted schemes. Services specifically designated for the poor are often just poor services. The poor may actually gain more if they and the well-to-do share an interest in the same services, using the same schools and health care services, for instance, rather than different tiers. Educated, middle-class parents may be more effective advocates for higher spending and better teaching in the public system than poor, illiterate parents who are less effectual in voicing their concerns. But all students in the system, no matter their wealth, benefit from effective advocacy. When middle class students opt out of the system, as seems to be happening in primary education, the poor may lose their most effective advocate for change and better services.

5.8 Despite UP's considerable challenges, reforms are underway in both the health and education sectors that are beginning to lead to improvements in access as well as quality of services. A range of reforms to India's Anti-Poverty Programs (APPs) are being considered in the context of the forthcoming Tenth Five Year Plan. These are noted below.

B. Education

5.9 Education improves the quality of life for the poor both directly and indirectly; educated parents raise healthier children who are themselves more likely to do well in school and in the job market. Education opens not only economic opportunities but avenues to effective civic participation. When economic growth creates new jobs and better ones, the unskilled and illiterate will not get them. Access to different types of employment is strongly related to education and training. Individuals who are

illiterate or have very little education are disproportionately represented among agricultural wage laborers, while the well-educated are more likely to be self-employed, employed in business, or working in regular salaried employment (Table 5.2). (Srivastava, 2000b; Lanjouw and Shariff, 2001).

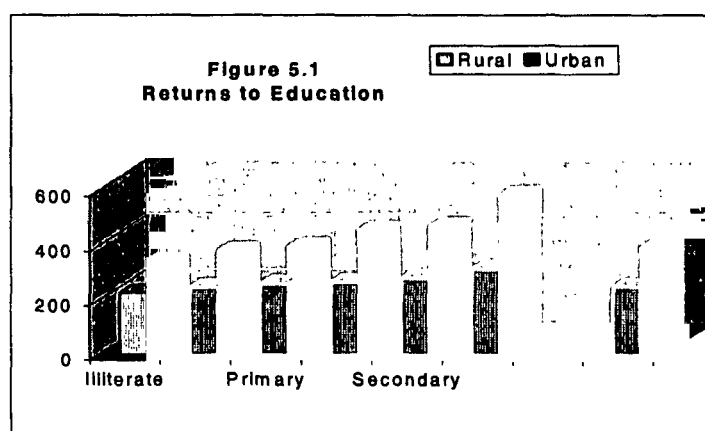
Table 5.2 Education Level and Principal Occupation of Main and Marginal Workers

Employment Type	Level of Education Completed							Total
	Not Literate	Less than Primary	Primary	Middle	Matric	Inter-mediate	BA/B.Sc	
Agriculture-Self Employed	35	30	29	32	37	40	31	34
Agriculture Laborer	31	16	11	14	7	2	3	22
Non-Ag. Laborer	15	23	27	27	19	11	11	18
Salaried Employment	3	10	13	10	19	27	43	9
Self Employed/Business	11	18	18	15	17	20	12	14
Other	4	3	3	1	2	0	1	3
Total	100	100	100	100	100	100	100	100

Source: UP/Bihar Poverty Study, 1998

5.10 Returns to education are significant (Figure 5.1). Analysis of the NSS 50th Round (1993-94) shows that even after controlling for household characteristics that might be expected to influence mean consumption (such as demographic composition, social status, principal occupation, land owned, etc.), the predicted mean consumption of households level (measured in Rs. per person per month) rises appreciably with increasing educational attainment of the household head (see Annex Table 5.1 for details of the model). Consistent with findings on poverty incidence and education in Chapter 2, education has a weaker impact on welfare levels in rural as compared to urban areas, reflecting differences in types and availability of employment, as well as returns. However, the broad implications are clear: access to good quality education coupled with a willingness to invest in educating children are key for the poor to compete for new, higher paid, and more secure employment opportunities in India's modernizing economy.

Figure 5.1 Returns to Education: Rs/Person/Month, 1993-94



Source: NSS 50th Round, survey tabulations

5.11 Indians increasingly recognize that education brings not only material gains but also gains linked to social mobility and political empowerment. In the recent Public Report on Basic Education in India –

PROBE Report (PROBE Team, 1999), 98 percent of parents said that it is important for boys to be educated and 89 percent responded similarly for girl's education. Economic benefits were clearly recognized – a Dalit father from Moradabad District said “an educated boy can get a job, do a business, run a shop properly. He will be successful (PROBE Report, p. 20). But material gain is not the only motivating factor. A young man from Sotawa, MP, said “If all children study, they will get their rights” (PROBE Report, p. 21). And “Society only respects those who are educated” (OBC laborer in Bihar, PROBE Report).

Rising Enrollments

5.12 Until recently, Uttar Pradesh was registering low rates of school enrollment among the children of the rural poor and an even deeper deficit in the numbers completing the elementary grades, through class 8. As of 1995-96 (NSS 52nd Round), only 61 percent of rural girls and 82 percent of rural boys aged 6-14 years were in school. Girls from the wealthiest 20 percent of rural households were twice as likely (83 percent) to be enrolled as girls from the poorest 20 percent (43 percent). Just over half (51 percent) of SC/ST girls were enrolled, compared to almost two-thirds (64 percent) of girls from majority households. A 1998 World Bank study (Filmer and Pritchett, 1998) of completion rates in the early 1990s, moreover, found UP children from the poorest 40 percent of households, and in particular girl children, far less likely to complete elementary school than children from the wealthiest 20 percent of households. Among the poorer group, only 37 percent of boys and 8 percent of girls finished 8 years of education. In contrast, 85 percent of boys and 83 percent of girls completed the elementary grades, through class 8 among the wealthiest 20 percent of households in the state.

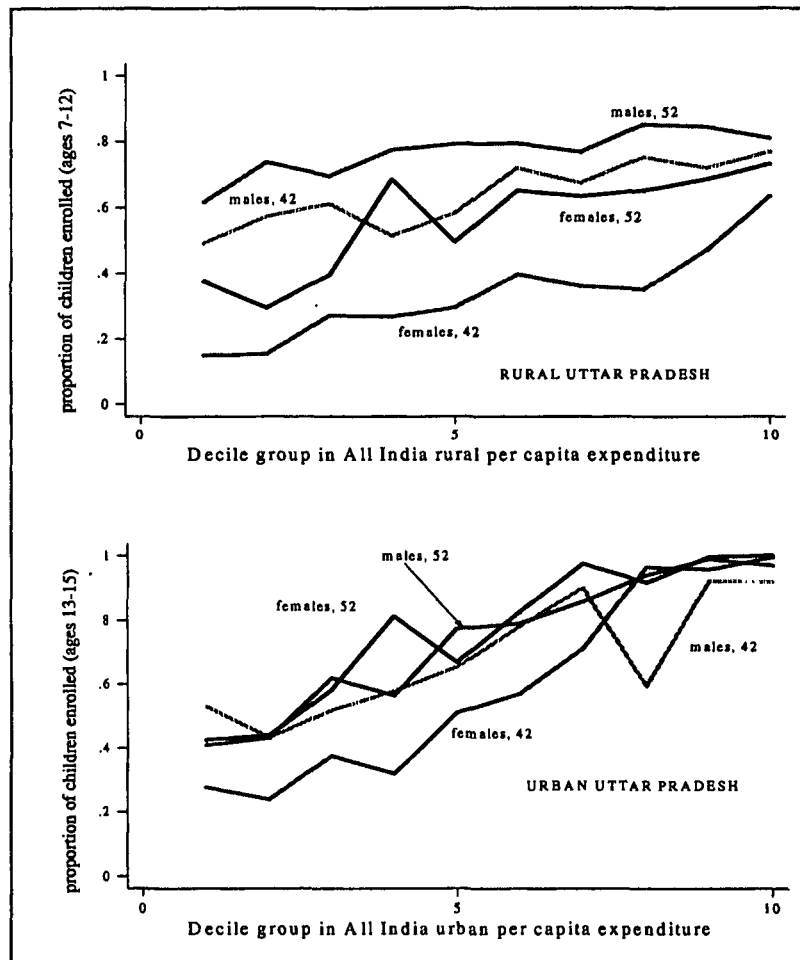
5.13 Comparisons between the NSS 42nd Round (1986-87) and 52nd Round (1995-96) show that rural primary school enrollment rates for 7-12-year-old girls for the poorest 40 percent of households almost doubled over 10 years – from around 20 percent of the relevant age group to an estimated 40 percent (Deaton, 2000). More recent estimates from the NSS 55th Round state sample show continuing improvements, particularly in education levels of girls and SC/STs (Table 5.3) in the relevant age group. According to these estimates, by the end of the 1990s the gap between boys and girls enrollments had virtually closed in urban areas and narrowed considerably in the countryside. However, less than 60 percent of children from the poorest 20 percent of the population were enrolled in school in 1999-00, and school enrollments for poorest quintile living in urban areas were even lower than rural enrollments. This is a puzzle in light of the supposed higher average returns to education in UP's cities and towns.

**Table 5.3 Average School Enrollment Rates, Children Aged 7-12 Years
1999-00 (Percent)**

	Rural Areas			Urban Areas		
	Boys	Girls	Total	Boys	Girls	Total
Poorest 20%	68	51	61	55	51	53
2 nd Quintile	74	63	69	71	66	69
3 rd Quintile	77	68	74	79	78	78
4 th Quintile	78	72	76	81	87	83
Wealthiest 20%	85	79	82	92	90	91
<i>Total State</i>	<i>74</i>	<i>63</i>	<i>69</i>	<i>77</i>	<i>77</i>	<i>77</i>

Source: NSS 55th Round, UP State Sample, survey tabulations

**Figure 5.2 Proportion of Children Enrolled in School, 7-12 Years Old
NSS 42nd Round (1986-87) and 52nd Round (1995-96)**



Note: 52 denotes 52nd Round NSS survey, 1995-96;
42 denotes 42nd Round NSS survey, 1986-87

5.14 More recent data for those districts covered in the Basic Education Project (begun in 1993) and in the District Primary Education Project (from 1997) suggest an even stronger acceleration. Where the two projects have been active, primary school rolls are reported to have almost doubled since 1993, and various administrative data sources suggest Gross Enrollment Rates (GERs) of well over 90 percent. These gains, however, do not provide the complete story. The growth in enrollments in non-project districts is reported to have been lower. Even in the project districts, while most children initially enroll in class 1, one out of every three fails to complete the five-year cycle. With many of the dropouts presumably are from poor and/or scheduled caste households, recent gains have not changed the reality that a significant proportion of children from disadvantaged households neither complete primary school nor continue beyond it.

5.15 Estimates of Gross Enrollment Rates¹ (GERs) using data from the NSS 55th Round state sample show little evidence of differential GERs in DPEP and non-DPEP districts for primary school-aged children. Nor are survey-based GERs as high as those drawn from administrative data: the gross enrollment rate for girls aged 6-10 in DPEP districts was estimated to be 70 percent as compared to 84 percent for boys. Further work is needed to establish the real impact of recent initiatives in the education sector, and what factors have contributed to successes. As well, work is needed to establish the credibility of the statistical data base.

Addressing Low Enrollments

5.16 What are the reasons behind continuing low school enrollments, particularly among the poor? And what can be done to raise enrollment levels and learning in the state? Demand and supply factors both matter. On the basis of recent empirical work, and drawing on an extensive literature on education in India (Bhatty, 1998, for an overview) and information gleaned from consultations with the poor, three important aspects of state-level education policy must be addressed: *first*, there is a need to spend more and spend better to achieve India's goal of education for all. *Second*, there is a need to improve physical, economic, and social access to education services for the poor and socially excluded. And *third*, while expanding access may bring children into school initially, there is a pressing need to improve quality so that the poor not only begin but also stay in school and learn what they need to know to compete successfully in India's rapidly changing job market.

Public Spending

5.17 Levels of public spending inevitably affect the quality of schools. In Uttar Pradesh, which is at or slightly below the all-India average of state-level spending on elementary education, public support is rising, but from low initial levels. Over the course of the 1990s, spending as a percentage of GSDP has risen marginally from 1.7 percent to 1.8 percent, above the all-India average, but still below states like Kerala, Himachal Pradesh, and Rajasthan. Total spending in UP increased by 28 percent overall, and by 17.6 percent on a per student basis, again well below some of the higher performing states. UP's per-pupil spending is below the-all India average, reflecting the state's very high pupil-teacher ratios (Table 5.4). Moreover, an estimated 97 percent of state spending goes to teachers salaries, which leaves little additional resources for quality inputs.

Table 5.4 State Spending on Education

	Expenditure by State		Total Real Spending (Rs. Million)			Real Spending per Student (Rs./yr)		
	1991-92	1997-98	1991-92	1997-98	Percent ch.	1991-92	1997-98	Percent ch.
Kerala	2.4	2.1	1879	2193	17.3	379.9	480.7	26.5
Himachal Pradesh	n.a	n.a.	465	715	53.8	434.7	667.6	53.6
Karnataka	1.6	1.7	2140	3017	41.0	281.8	342.7	21.6
Andhra Pradesh	1.0	1.0	2291	2576	12.4	227.9	239.4	5.1
Rajasthan	2.00	2.2	2084	3192	53.2	340.3	359.2	5.6
U.P	1.7	1.8	4869	6231	28.0	242.1	284.6	17.6
All India	1.4	1.3	38445	49701	29.2	282.6	335.2	18.6

Source: Sipahimalani, "India: Financing of Elementary Education in India in the 1990s"
South Asia Education Sector, Technical Working Paper No. 2, November 29, 2000.

Issues of Access

5.18 Just as it can be argued that UP is not spending enough on public education, it can also be shown that the funds being spent are not producing the desired result: universal access to education of adequate

¹ Defined as the number of children enrolled in school divided by the number of children in the relevant age group.

quality. Access can be measured in terms of physical distance, social access, and barriers introduced by economic factors.

5.19 One problem, though not necessarily the gravest, is *physical access*. Physical access to schools matters, particularly for girls and children from SC/ST households. According to Government of UP norms, a primary school is to be established within 1.5 km walking distance in the plains and 1.0 km in hill districts. Upper primary schools are to be established within 3 km. State-wide, however, approximately one child in ten lives too far from a primary school by the state's standards, and about one child in five is too distant from an upper primary school. In all, approximately 2.8 million children do not have physical access to the full elementary cycle and 1.3 million of these do not have adequate access to a primary school. Social mapping exercises revealed that, in rural areas, low-income hamlets are often located at the periphery of villages, while public facilities such as schools tend to be located in upper-income hamlets. Many of the poorest urban informal settlements are "unrecognized" by government, and so there is no school in or near them. Thus, although official norms are satisfied, a distance of one or two kilometers between home and school can be a significant impediment to attendance, causing many parents concern about the safety, particularly of their young children and girls. The Education Department recently launched detailed microplanning of school facilities to ensure that new schools are built where the needs are greatest.

5.20 What of *economic access*? Benefits must outweigh costs – which are significant – for a poor household to defer a child's entry into the labor force and continue his or her schooling. In particular, the expected returns to education must be high enough to offset the opportunity cost of the child's lost labor (at home as well as in the market) as well as direct costs of schooling. Evidence on the links between child labor and school enrollments is mixed; a number of studies suggest that child labor is more of a default activity, not the primary reason for taking children out of school (PROBE Team, 1999; Bhatta, 1998; Lieten, 2000). The direct costs of public schooling, however, are known and are known to be high: tabulations from the NSS 52nd Round (1995-96) show that families on average spend Rs. 507 annually on educating a child in primary school, and Rs. 947 on sending a child to middle school. Poor families in particular are likely to be less able to afford the books, school supplies and uniforms required for school attendance, and the public sector – although education in India is supposedly free – historically provide little in the way of financial support: only 6.5 percent of students (aged 5-24 year) received any form of scholarship or additional assistance. Efforts are underway to underwrite some of the direct costs of schooling and widen access for children from poor families: a scheme was launched in 2000 (ST/SC children) and 2001 (extended to all children) to provide textbooks free of charge to all children enrolled in primary school.

5.21 Some compensation for family outlays comes from the Mid-Day Meals Program, a centrally sponsored scheme initially launched in 1995 that provides grain rations to elementary school students and, though untargeted, actually works in favor of the poor for the simple reason that children from more affluent households are more likely to attend private schools where the food is not distributed (Kozel and Parker, 1999).

Box 5.1 The Midday Meals Program: Who Benefits?

In districts covered under the UP/Bihar Poverty Study, only 17 percent of students between the ages of 6 and 12 years reported receiving grain rations through the Mid-Day Meals Program in Bihar, in comparison to 57 percent of similarly aged students in eastern and southern regions of UP. While the program is not targeted towards the poor and regional coverage remains uneven, survey tabulations from the recent UP/Bihar household survey suggest that the midday meals program is actually mildly progressive. This is in large part due to the fact that many children from upper caste and/or better off households in rural UP attend private schools (an estimated 25 percent of students in the study area did not attend government schools) and therefore do not receive grain rations. Interestingly, the incidence of the Mid-Day Meals program was extremely high (over 65 percent) for children from SC/ST households who were enrolled in school and low for Muslim households (just over 25 percent), who typically attend religious schools.

Percent of Children Receiving Grain Rations in Past 30 Days -- 1998, By Quintile

	Per capita consumption quintile					Overall
	1st	2nd	3rd	4th	5th	
All Children	18.4	20.8	32.0	25.6	25.9	24.2
Upper/middle caste	12.4	28.7	29.6	19.2	24.9	24.0
SC/ST	18.0	22.2	35.3	41.3	44.3	26.2
Muslim	11.2	6.0	9.8	12.8	0.0	8.6
Children Currently Enrolled	39.5	34.5	47.2	35.2	30.0	37.1
Upper/middle caste	18.4	32.7	37.3	20.9	26.7	27.
SC/ST	45.2	44.6	61.8	61.0	61.9	52.2
Muslim	23.1	11.8	15.8	21.1	0.0	14.9

Source: UP/Bihar Poverty Study, 1998

5.22 *Social Access.* Those at the bottom of the caste system – children most in need of the economic and social lift that education can bestow – are less likely to attend school than children with higher caste status (Chapter 2). This is in part due to perceived lack of economic opportunities, but they face other barriers as well. In field consultations undertaken as background for the report, stories of both covert and overt discrimination in the classrooms were frequent. In some cases, SC/ST children were made to sit in a corner of the classroom or outside the door. Teachers tended to pay less attention to children from lower castes, and both teachers and peers often treated them as social inferiors (PROBE Team, 1999).

Quality Matters Enormously

5.23 Past efforts to spread education more widely have emphasized increasing the number of schools and special incentive schemes (e.g. the Midday Meals Program) to boost attendance. Recently, however, attention has shifted to improvements in the quality of education (e.g. the District Primary Education Program), a response in part to evidence that poor and socially disadvantaged parents, who have to make considerable sacrifices to send their children to school, care very much about the strength or weakness of the school. The new approach, however, has had little impact so far on the often low levels of achievement and skills acquisition in the remote rural schools of Uttar Pradesh.

5.24 Physical infrastructure is important, as is management and staffing of schools. Surveys conducted by the Government of UP revealed that of the 73,000 public primary schools in the state, 43 percent lacked a water supply, 64 percent lacked latrines, and 10 percent were in need of significant repair and rehabilitation. In most ministries, staffing at the local level is also a concern. Teacher absenteeism and transfers are major problems. Teachers' eligibility for re-posting every two years leads to tremendous pressure to be assigned to more attractive areas rather than poor rural ones. Transfers, in turn, reduce the necessary continuity of teacher service in any given school. Teachers virtually lack public accountability.

Monitoring of school and teacher performance rarely involves parents, although effort are underway to change this (para 5.34). Despite a dual hierarchy of administrative and academic supervision, many inspectors are subject to carefully orchestrated visits and are not required to provide substantive inputs as part of their reports. In any case, there few punitive measures that can be taken against teachers, who comprise a strong political lobby in the state (PROBE Report 1999). As a result, the PROBE report states that from a survey of schools in UP, MP, Bihar, and Rajasthan that only one-quarter of teachers were actually involved in teaching activities when the PROBE investigators visited.

5.25 Staffing levels are problematic. Although the official norm is 40 pupils per teacher, estimated pupil-teacher ratios in public primary schools range from 25-30 in hill districts to 74 pupils per teacher in Allahabad District and 79 pupils per teacher in Bhadohi District.² The ratios, moreover, have been rising from 40 pupils per teacher in 1980-81, to 56 by 1990-91 and 59 by 1995-96, according to statistics provided by the Department of Education. Since trained teachers are reluctant to accept positions in poorer areas, it is often the least qualified who are forced to do so. In recent months the state decided to recruit over 20,000 Shiksha Mitras/para-teachers with the aim of reducing pupil-teacher ratios and improving education quality. While encouraging, the success of these efforts must ultimately be judged by the numbers of teachers that are actually appointed, where they are placed, how well they teach, and whether the state ultimately achieves better education outcomes.

5.26 Under current conditions, children enrolled in the public school system may not even attain basic literacy, much less more advanced capabilities that could prepare them for employment in the modern sector. The better off, by contrast, can afford private education or travel to more distant albeit better quality public schools if warranted by the poor quality of their local school.

Private Schooling

5.27 Among Indian states, UP has one of the highest levels of private school enrollments – one-fourth of all rural students and 70 percent of their urban counterparts. And private enrollment rates are rising, particularly in the unaided sector. At present, the private sector alone accounts for nearly 50 percent of total primary school enrollments in UP's cities and towns, despite the fact that the cost of sending children to private schools is almost twice as high as outlays for public education (Sipahimalani, 2000). Private unrecognized schools comprise a very heterogeneous group: many are neither certified nor recognized. The private recognized sector is large as well; aided schools represent a public-private collaboration in that they are managed privately but subsidized by the government.

5.28 Patterns of enrollments by wealth and social group raise concerns; the privileged – urban, upper caste – are more likely to attend private schools, particularly “recognized” private schools. In four districts in Eastern and Southern UP, for instance, nearly 80 percent of primary-aged children from the poorest 20 percent of the rural population are enrolled in government schools, as well as over 85 percent of low-caste children. Those same schools take 64 percent of youngsters from the wealthiest quintile and an estimated 70 percent from the non-SC/ST population. And only half the children from Muslim households attended public schools.

5.29 The findings described above have broader applicability; early estimates from the NSS 55th Round highlight the strong relationship between wealth and private school enrollment (Table 5.5). Students from the wealthiest quintile are much more likely to be enrolled in private, recognized schools

² Basic Primary Education Project (BPEP) staff estimates.

and government aided schools than poorer students, who primarily attend government schools. However, even the poorest households in urban areas send their children to private schools in substantial numbers.

Table 5.5: School Enrollments by Type of School, 1999-00 by Quintile (Percent)

Type of School	Rural		Urban	
	Boys	Girls	Boys	Girls
Government	75	77	29	33
- Poorest 20%	80	85	42	58
- Wealthiest 20%	61	64	18	20
Government Aided	6	7	15	17
- Poorest 20%	4	5	15	13
- Wealthiest 20%	11	8	16	22
Private - Recognized	11	9	41	39
- Poorest 20%	8	4	26	17
- Wealthiest	20	22	53	47
Private - Unrecognized	7	6	12	8
- Poorest 20%	5	5	16	6
- Wealthiest 20%	7	6	11	10
Other	1	1	2	2
Overall	100%	100%	100%	100%

Source: NSS 55th Round, UP state sample, survey tabulations

Note: All students aged 7-12 years.

5.30 What factors are behind UP's continuing high levels of private enrollments? Evidence from a number of sources suggests that the quality of public education may be deteriorating and, as a result, children from better off households are opting out of the public system, leaving poor and socially-disadvantaged households behind. Parents expressed these concerns in both urban and rural consultations. In addition, private schools have come up in villages and urban settlements where no public school was available. However, the upward trend in private enrollments could also reflect "pull" factors – e.g. willingness to pay for better quality education – rather than "push" factors – e.g. deteriorating quality in the public system. There is a widely held perception that private schools provide better quality education, although evidence on this is mixed, and even poor parents are frequently willing to pay higher fees for better schooling. Work remains to establish the factors that underpin these trends and appropriate policy responses. This is particularly important in light of the significant investments in public education made under the District Primary Education Project (DPEP) since the early 1990s.

Courses for Reform

5.31 Improving the quality of education in UP will require fundamental reforms that change the incentive framework within which teachers, school officials, bureaucrats, and politicians operate. UP's recent attempts to expedite the process of administrative, financial, and political decentralization hold out promise for improved accountability and quality across a range of government services, including education. Reformers can draw on the growing body of knowledge and experience accumulated in states that have been successful at raising and maintaining high school enrollments and from unique programs like Lok Jumbish in Rajasthan.

5.32 What are these lessons? GOI has made concerted efforts to improve enrollment and retention rates among the poor. Most notably, under the District Primary Education Program (DPEP), the GOI and 14 states (including UP) have been working to expand access to lower primary schooling (especially for girls and the disadvantaged) and enhance quality and learning achievement through better teacher training

and performance, improved quality of textbooks, and building managerial and institutional capacity. And ultimately higher levels of public financing for primary education, albeit within a sustainable resource envelope. As part of the broader initiative in education reform, the Uttar Pradesh Basic Education Program (UPBEP) extended the intervention to include upper primary schooling as well. Several centrally sponsored schemes have been expanded, including Mid-day meals (National Program for Nutritional Support to Primary Education). Recent assessments, buttressed by the emerging results of the NSS 55th Round, suggest that efforts to increase enrollments have had some moderate success, although there remain significant challenges, particularly in terms of quality and learning outcomes. A formal evaluation of the DPEP, with particular reference to UP, is currently underway.

Box 5.2 Primary Education Project in UP

The Central Government, 15 state governments, and the World Bank and other partner agencies have an intensive, ongoing dialogue on primary education. This dialogue, including key Indian research institutes and other parts of civil society as well, focuses largely on the District Primary Education Program (DPEP). Since 1994, IDA has been supporting the Programme through six projects covering 153 districts in 13 states. In 1998, the Uttar Pradesh DPEP III was launched covering 38 districts. The DPEP was preceded by the Uttar Pradesh Basic Education Project (UPBEP) launched in 1993 in 12 districts (later bifurcated to 17) and designed to be implemented over seven years. Many of the processes and interventions formulated during the preparation of this project formed the basis of the DPEP. As a result of the greater-than-anticipated increases in enrollments that placed great stress on both schools and teachers, an additional three-year add-on project (UBEP II) was developed in 1997.

Both BPEP and DPEP projects have aimed to support replicable, sustainable, and cost-effective interventions focused on (i) expanding access to lower primary school, or to an equivalent, non-formal education for children from socially disadvantaged groups (UPBEP also expanded access to upper primary school for 11-13 year olds.); (ii) increasing retention and improving learning achievements through strengthened community participation, early childhood education, curriculum and textbook revision, in-service teacher training, targeted programs for women and girls and strengthened school management; and (iii) strengthening the capacity of national, state, district, block and community organizations in planning, managing, and evaluating primary education.

The ambitious access objectives set for UPBEP I and II appear to have been reached, although the data base is uneven. The physical infrastructure for around 500,000 school places has increased the proportion of girls and children of scheduled-caste families attending school, and various programs to raise interest in education and improve the quality and attractiveness of schools have increased the demand for places. Estimates of the gross enrollment ratios suggest that there are sufficient primary school places for all 6-10 year olds and for around 70 percent of 11-13 year olds. Although only very approximate data on repetition and dropout rates were available at the beginning of the project, current data suggest that both have fallen. Further work remains to assess sustainability and longer-term learning outcomes.

While school places and enrollments have expanded, the Government has not achieved the planned-for reduction in the teacher-pupil ratio. In spite of the appointment of 24,657 primary teachers and 8,855 upper primary teachers in the course of the project, the ratio in project districts averages 60:1. This situation almost certainly reduced the impact of the several interventions aimed at improving the quality of the teaching-learning environment -- the heart of the project. Among these interventions have been a strengthening of early childhood centers, the establishment of functioning decentralized resource centers that have facilitated a program of in-service teaching and support to teachers, comprehensive curriculum revision and the production of new sets of textbooks and the encouragement of learning materials development in schools. Simultaneously, the institutions that support elementary education from the Village Education Committees to the State Council of Educational Research and Training have also been strengthened.

There are reasons to be hopeful that several of the achievements of the project will be maintained, and perhaps extended. GOUP has provided the necessary non-plan budget to continue the core activities, linkages between the key institutions are now cemented and new lessons will be learned in the DPEP supported districts in the state.

Source: World Bank staff assessment.

5.33 Following on the DPEP and linked to India's new education reform efforts, the state has instituted a number of measures to improve education quality and teacher accountability at the elementary level (Government Order of July 11, 2001). These include: (i) a system for grading schools based on objective criteria such as teacher attendance and performance in the classroom, as well as learning outcomes; (ii) regular monitoring of teacher attendance; (iii) sharply limitations on the non-academic duties of teachers; (iv) reducing the number of holidays granted to teachers; (v) standardizing school timings so that all

teachers are accountable for being in the school between 10 a.m. and 4 p.m.; (vi) delegating the responsibility for supervising teacher attendance to the Village Education Committees (VECs), and allowing them to recommend punitive action as required; and (vii) issuing guidelines to streamline teacher transfers in order to make the process more transparent and to rationalize teacher postings based on teacher-pupil ratios.

5.34 The fact that returns to education are comparatively low for the poor, and particularly for socially disadvantaged groups, suggests that education projects may not be sufficient in themselves to allow the poor to compete in the labor market, and more broadly in the economy, on an equal footing. Strategies for expanding the economic opportunities for the deprived and disadvantaged should be broad enough to encompass a number of mutually-reinforcing elements -- including, for example, literacy and education, non-classroom skills development, capacity building and social empowerment. Such a strategy would both enhance the development of human resources and attack the barriers that limit the ability of the poor to exploit rather than be exploited by economic development. Each element fosters the demand for the others and provides an entry point into a complex set of interventions aimed at breaking the economic, social, and cultural shackles of poverty.

5.35 Mexico's *Progresa* program, for example, tackles the nexus of health, education and basic security, with implicit elements of individual empowerment (Box 5.3).

Box 5.3 The *Progresa* Program in Mexico

Begun in 1997, by 1999 *Progresa* covered 2.6 million rural families -- about one-tenth of all families in Mexico -- at a cost of \$800 million or 0.2 percent of GDP. The program provides cash grants to poor families in rural areas on the condition that their children attend school and visit health centers regularly. It has five objectives. First, to increase educational attainments and improve health outcomes and thus reduce future poverty. Second, by restricting grants to the current poor and by improving their health, the program aims to reduce current poverty as well. Third, by requiring children in beneficiary households to have minimum attendance in school, the program aims to reduce child labor. Fourth, an implicit objective is that by providing income support to poor families, it acts as a partial safety net, preventing these families from falling into poverty in the event of an adverse shock. Last, the program also provides sizable supply-side support in the form of increases in teachers salaries and the supply of medicine.

Systematic evaluation of *Progresa* has shown a significant impact on education and health outcomes. Enrollment rates of children in households in *Progresa* localities are higher compared to the enrollment rates of children in similar households elsewhere. Clinic visits in *Progresa* localities were 18 percent higher than in non-*Progresa* areas, the number of pregnant women taking their first visit in the first trimester increased by about 8 percent. Participation lowers the probability of illness by 22 percent among children aged 0-2.

The program has been able to generate strong commitment within and outside the government. Federal and local governments have begun to see it as important element of Mexico's poverty reduction strategy. The local schools and health centers are important stakeholders. Various agents of civil society are actively involved in monitoring and enforcement of the program.

Evidence suggests that the program has been reasonably successful at targeting poor households. Leakage rates (i.e., the non-deserving benefiting from the program) has been low. However, the program misses a high percentage of the deserving population. As *Progresa* expands into less poor communities the selection error is higher.

Source: Sedlacek et. al., 2000.

5.36 Some community-level organizations in UP have attempted to break the cycle of poverty among disadvantaged women by training them in useful but unconventional occupations such as hand-pump maintenance or masonry. These small programs have not only improved the earning capabilities of the women who participated, but also have been socially empowering and have led to increased demands for literacy programs for themselves and their children. These same women have become better equipped to form the nucleus of new local leadership, which has been granted number of new responsibilities under the Seventy-third Amendment to the Constitution. By contrast, an approach restricted to improving

formal education alone may be less effective in breaching cultural barriers that prevent poor women from learning useful skills and earning a living wage.

5.37 As UP examines alternative options to improve education within a comprehensive strategy for reducing poverty, it should gauge the significance for public education of the decisions by many households, including those among the poor, to send children to private schools, despite the high relative costs of such education. Since parents pay considerable sums even when children are enrolled in the public sector, policy-makers should weigh the question of *public provision* versus *public financing* of education. One can argue for government financing for primary education, especially for children from poor households, but it is not clear why these schools need to be provided by the government. Various alternatives have been tried in other countries. One interesting option that has worked with some measure of success in a number of countries is to give parents cash subsidies or vouchers and let them choose the type of school their child will attend. Other countries (e.g., some states in the United States) have experimented with contracting for the delivery of education services by private providers, including NGOs. There have been numerous successes and there are important lessons for states like UP, where both resources and institutional capacity are limited.

C. Health

5.38 This section focuses primarily on health services. However, poor public health conditions that plague the better off as well as the poor are particularly acute in rural areas, where the quality of curative care drops off sharply and environmental factors – unclean water, lack of adequate sanitation, air pollution due to cooking fuels – exert a significant impact on quality of life. Environmental factors were found to account for 15-20 percent of the total burden of disease in a recent study for Andhra Pradesh (Hughes, G., K. Lvovsky, and M. Dunleavy, 2001), and women and children, given the range of other factors that impinge on their health status, were found to be particularly at risk.

Drinking Water and Sanitation

5.39 In recent years, the state of UP has made significant progress in providing access to safe drinking water in rural areas. Basic needs have been met, with the exception of a few chemically affected areas. More than 1 million handpumps have been installed for a rural population of 130 million. This average of one handpump per 130 persons is well within the minimum need criteria of one handpump per 250 persons set by the Government of India. Increased access to safe drinking water has generated positive health impacts in rural areas; there is early evidence of a decrease in infant mortality in areas where access to potable water has improved. The state has also taken initiatives in involving communities in developing and managing their water supply, currently through the World Bank funded Swajal Project and the sector reform program of the Accelerated Rural Water Supply Programme (DHV Consultants, 2001). Despite progress in providing community access to drinking water, coverage of sanitation (particularly sanitary latrines) remains very low.

5.40 In spite of these achievements, the UP Rural Poverty Study still found evidence that the poor and socially disadvantaged lack access to clean drinking water in some regions. This was due to deep rooted caste divisions that hinder, and in some cases, prohibit lower caste households from accessing water sources controlled by dominant upper castes. During summer, these caste tensions intensify due to the scarce availability of water. For example, the hamlet inhabited by the Malhan (poor backward caste boat people) *bustee* of Bikar Village in Allahabad has access to a single hand pump. On days when their hand pump fails to work, the villagers said that they were forced to drink contaminated water from the river or

face abuse from the upper caste households when tried to get water from wells in an nearby hamlet. There were numerous reported cases where hand pumps meant for Dalit (Scheduled Caste) hamlets were installed in hamlets occupied by the better off. This is in violation of the Central government norm that stipulates that every Scheduled Caste village should have its own hand pump.

UP's Health Services Strategy

5.41 India's strategy toward both rural health services and nutrition puts almost exclusive emphasis on the public provision of such services as fixed-site dispensaries in local communities, sub-centers, Primary Health Centers (PHCs), Community Health Centers (CHCs) and block-level and District Hospitals. Visiting Auxiliary Nurse Midwives (ANMs) stationed at sub-centers and PHCs provide outreach services to children and pregnant women, and Anganwadi workers also provide nutrition services and assist with immunizations and preventive care. Services to the poor at all facilities are provided free, though nominal user fees have been introduced for the non-poor at CHC level and above.

5.42 Despite this extensive network of free public health facilities, however, private expenditures on health care, mostly due to catastrophic illnesses or minor illnesses that become catastrophic due to poor treatment, are frequently cited as a common cause of rural impoverishment and destitution. This is in part because the poor consult more costly private sector practitioners with far greater frequency than public sector practitioners. According to the NSS 52nd Round (1995-96) 91 percent of outpatient visits in UP were to private practitioners. Among the poor, these practitioners are likely to be "Rural Medical Practitioners" (RMPs) or *Jhola Chap* "doctors" whose level of effectiveness is unknown. Various studies have revealed a high level of patient dissatisfaction with public facilities, based on a number of shortcomings. A survey of patients from public facilities revealed that they are dissatisfied with the financial burden of care, the lack of cleanliness in facilities, and the behavior and attitudes of the staff (STEM, 2000). These problems are highlighted in a recent district-level health assessment done as background for this report (Parker, 1999).

Box 5.4 The Health Situation in Chitrakot District

During September 1998, a small study was undertaken of the health problems experienced by the poor in Chitrakot District (southern UP), and of the various health care and treatment options they utilize. Qualitative methods, including semi-structured interviews, case history interviews, key informant interviews and focus group discussions, were used to explore a key question: why, when the Government of India provides free primary health care at the village level, are the poor are suffering a high disability and illness burden and often spending a large proportion of their very limited resources on health care and treatment?

The study's results indicated that the poor are bypassing village-level fixed site primary health care facilities provided by government in favor of *jhola chap* doctors and the local chemist. This is largely because the former are chronically short of medicines, supplies, and equipment while the latter are fully stocked. Ineffective treatment by untrained practitioners can lead to several consecutive (and expensive) consultations, which may propel a poor household into destitution and chronic debt. The problem is compounded by the fact that knowledge of disease etiology and prevention among Chitrakot's poor is low even by developing country standards. Contact between villagers and GOI outreach workers, such as the Auxiliary Nurse Midwives (ANMs), however, is relatively frequent and may determine whether or not the disadvantaged receive any immunizations. Although corruption was mentioned by many informants as a barrier to effective care, the principal cause of the primary health care system's shortcomings appears to be under-financing.

Source: Parker, 1999.

5.43 A recent study (Ramana et. al., 2002) highlights the stark inequities in access to essential reproductive and child health services in rural India. UP compares poorly to many states along a number of dimensions – use of modern contraceptives, antenatal care, safe births, and extent of childhood immunizations. Not only are levels of access low but there remain stark inequities between the poorest 20 percent of the rural population and the wealthiest 20 percent. In contrast to states like UP, Bihar, and Rajasthan, many of India's southern states have achieved higher and more equitable levels of access.

Table 5.6: Access to Reproductive and Child Health Services: by State and Wealth Quintile

States by Wealth Quintile		No Use of Modern Contraceptives (%)	No Antenatal Care (%)	Home Delivery (%)	Received No Immunizations (%)
Uttar Pradesh	Top 20%	65.4	20.4	73.1	17.7
	Bottom 20%	84.9	44.7	92.6	36.1
Bihar	Top 20%	58.4	12.9	66.1	31.9
	Bottom 20%	82.9	44.4	94.2	61.5
Rajasthan	Top 20%	62.5	13.9	64.6	17.6
	Bottom 20%	77.0	47.8	90.8	46.8
Andhra Pradesh	Top 20%	28.9	1.0	34.8	0.0
	Bottom 20%	42.7	12.8	74.3	2.5
Karnataka	Top 20%	33.7	1.1	39.5	0.0
	Bottom 20%	37.1	15.1	72.8	2.1
Kerala	Top 20%	46.7	0.0	1.2	0.0
	Bottom 20%	33.5	2.9	6.4	1.4

Source: Ramana et. al, 2002

5.44 These studies suggest a clear mismatch between the commendable ideal of providing free, community-level fixed-site services and the availability of resources. It may be appropriate for GOI to consider reprogramming resources committed to these facilities in order to expand the ANM and other outreach programs, particularly in the area of health education and maternal counseling for improved maternal and child survival.

5.45 While recent research in UP suggests that one-third to one-half of the rural private practitioners are actually qualified in Indian Systems of Medicine or homeopathy, the remainder are untrained “quacks” – a term used widely in India. Even wealthier households in rural areas tended to seek treatment from RMPs (Box 5.5). Although they may be effective in treating minor, routine illnesses, the quacks’ capacity to deal with more serious conditions is highly doubtful, and there are instances in which their efforts have caused complications more grave than the original problem (Rohde and Viswanathan, 1995). Whether the care is from public or private providers, the end result for many of the poor is inept, inadequate, and expensive treatment with mixed and uneven results.

Box 5.5 The Role of "Alternative" Health Care Providers

Much has been made of the public/private split in the provision of health care in India. But the split between untrained providers, and trained providers in Indian systems of medicine and allopathy (Western medicine) is equally important. Drawing on the results of the UP/Bihar Poverty Study, of those respondents who were ill and consulted a medical practitioner, over fifty percent visited an untrained health care provider (for the first consultation) – including faith healers, *Jhola Chap* "doctors", and the local chemist. Even better-off households made surprisingly extensive use of the local *Jhola Chap* doctors. In contrast, government health care providers, particularly those located in the CHCs, PHCs, or sub-centers, were visited infrequently. In fact, indigenous practitioners and faith healers accounted for a larger share of the market than PHC/CHC/sub-center providers. As expected, the use of private (qualified) doctors and doctors in large, public hospitals increased with household wealth.

Medical Practitioner, Initial Consultation	Per capita consumption quintile (Percent)					Overall
	Poorest 20%	2 nd Quintile	3 rd Quintile	4 th Quintile	Wealthiest 20%	
Indigenous Practitioner/Faith Healer	8.6	11.7	7.8	8.4	5.3	8.3
Jhola Chap Doctor	53.2	52.6	49.6	42.9	43.1	48.3
Chemist	0.9	1.6	1.7	3.0	0.9	1.6
Govt. Doctor: PHC, CHC, sub center, or Village Health Worker	5.1	4.0	5.2	6.4	5.5	5.2
Govt. Doctor, Hospital or Other Major Facility	9.0	10.4	10.6	12.9	14.7	11.5
Private Doctor or Clinic	23.0	19.4	24.7	24.7	30.5	24.5
Charitable, NGO, Other	0.2	0.3	0.5	1.8	0.1	0.5
Overall	100.0	100.0	100.0	100.0	100.0	100.0

Source: UP/Bihar Poverty Study, 1998.

5.46 The private sector clearly has a key role to play in the delivery of health services for the poor and non-poor alike. However, there is a lack of standards and quality assurance systems in both sectors, and virtually no effective regulation in the private sector; it provides no information about its performance and has no systems for patient protection or fair pricing. There is limited information about how well private care is delivered in UP though abuse of technology and therapeutics and complex kickback schemes among providers (including those in the public sector) are commonly reported.

Box 5.6 Failures and Successes of the Health System in UP

In conversations with villagers about illnesses and use of medical services in the qualitative component of the UP/Bihar Poverty Study, health problems emerged as one of the most common causes of persistent poverty. In discussing causes of downward mobility, nearly every group mentioned disability of the breadwinner or the expense of treating long-term illnesses as factors leading to impoverishment. While loss of earnings was often the most important concern, treatment costs also figured prominently with some parents reporting foregoing the treatment of a chronically ill child or elderly member of the household in order to provide for the well-being of the rest.

Villagers told many stories of their struggles with both the public and private health systems. For example, two weeks before interviewers visited his southern UP home, the five-year-old son of a Harijan informant had begun vomiting and having diarrhea. His parents took him to a private "doctor" (untrained) in the nearest town. The boy received injections and medicines (of substances unknown to his illiterate parents) but failed to improve. He was then admitted to a private clinic as an in-patient and given an intravenous solution (locally known as "bottles") for two days. The child recovered, but the total cost of his treatment was Rs. 500. Meanwhile, his 12-year old brother developed the same symptoms. This time, the family consulted the government health facility. A service provider (title unknown to the family) took the child to his residential private practice where he gave two "bottles" for Rs. 200 and medicines from the market which cost Rs. 300 more. By this time, the third son, aged 14, had developed diarrhea and vomiting. All three children recovered, but by the time of the interview, the family had spent more than Rs. 1500, all of it borrowed from neighbors and the husband's employer, on their children's medical expenses (including transport costs).

Source: UP/Bihar Poverty Study, 1998, field consultations.

Courses of Reform

5.47 A number of measures could be taken to improve the effectiveness of the health care services offered to the poor, including (i) improving consumer responsiveness; (ii) providing more effective financial protection, particularly for the poor; and (iii) improving the quality and value of services. Options include:

- **Rejuvenating the public sector to better deliver its core functions.** It is not enough to improving the quality of public service delivery, the early focus of the UP Health Systems Development Project (HPHSDP); the public sector needs to improve policy-setting, regulation, networking, and financing in the health field. In the long run, greater public financing of health, as distinct from its delivery, and pooling of risks through health insurance, should be objectives. There is a growing consensus that these measures improve the efficiency and equity of health financing (WHO 2000).
- **Taking greater advantage of the private sector and ensuring quality care.** A strategy is desperately needed to provide oversight of the private sector, focusing on improving quality and equity, and countering the many private market failures. Such a strategy should include not only government regulation, but facilitate self-regulation as well, make information available to the public, contract with the private sector, and develop other types of partnerships. The UPHSDP has initiated this partnership and is developing the capabilities of government and other institutions to carry out the types of functions needed.
- **Using public information to empower people to better manage their own health care and to be better consumers of health care.** This is another public function that government should oversee, though not necessarily deliver directly. Communications and social marketing is often best implemented through more professional, non- bureaucratic approach of the private sector. The purpose is not merely to build up demand, but also to enable people to maintain their health, prevent illness, and treat disease.
- **Focusing on the needs of the most vulnerable.** While in some cases this may mean directly targeting health services for the poor, women and deprived groups, it also calls for better pooling of funds between the rich and the poor, to ensure that the same facilities available to the rich are also available to the poor. It also suggests that government should find ways to better monitor health resources and outcomes for vulnerable groups. At the very least, policy changes should be assessed in terms of their impact on inequalities in health impacts.
- **Supporting health promotion.** Some of the best investments in health in the long term are made through investments in education, particularly for girls. Though there are many routes to development and low mortality, educating and empowering people to make better decisions about health is a common pathway. Similarly, improvements in sanitation, water supply, agriculture, and income generation will contribute to improved health.

Higher Public Spending

5.48 Improving access to and quality of services for the poor often requires systemic improvements that ultimately upgrade service quality for all. Primary among these is an increase not only in public funding but also in its effectiveness at reaching the poor. The proportion of public resources UP commits to health is low by both Indian and international standards. However, increased spending must be within a sustainable resource envelope for the state. Though the public sector does act as a safety net for the poor, overall public expenditures on health do not effectively reach the poor. An analysis of government expenditure on health care indicates that it is largely pro-rich (Table 5.7), though some services, such as immunizations and non-hospital outpatient care are pro-poor. Out of every 100 rupees spent in the public sector on curative health care services in UP, the poorest 20 percent of the population receives 10 rupees

in health services while the richest 20 percent receive 41 rupees.

Table 5.7 Public Sector Health Expenditure by Wealth Quintile

State	Sex	Poorest				Wealthiest
		20%	2 nd Quintile	3 rd Quintile	4 th Quintile	20%
Uttar Pradesh	Male	10.3	9.7	14.4	12.0	53.5
	Female	9.9	9.7	11.3	35.9	33.3
	Total	10.0	9.7	12.5	26.4	41.3
All India	Male	9.7	13.3	15.5	25.1	36.4
	Female	10.7	14.4	20.9	25.6	28.5
	Total	10.2	13.9	18.4	25.3	32.2

Source: NCAER 2000, also NSS 52nd Round, 1995-96.

5.49 While public health spending in UP, in fact, is less pro-poor than in many other states, the facilities it supports will continue to be under-utilized by their intended beneficiaries unless problems of quality and access are addressed. In particular, an adequate and reliable supply of medicines and medical supplies must flow to the primary health-care facilities on a regular basis. Adequate funding of personnel costs is another critical constraint: staff shortages are such a major weakness that of the 3,787 sanctioned positions for Medical Officers in UP's primary health centers (PHCs), 1,524 were found to be vacant in 1997. ANMs, the health workers with the greatest local outreach, are seriously overburdened and lack promised back-up and support. One ANM per sub-center is sanctioned (i.e. about one per 5,000 population). Of the 21,712 sanctioned posts for ANMs, 21,323 are currently filled, and an additional 2,918 have been hired on a contract basis under the Reproductive and Child Health (RCH) program. However, due to UP's high fertility, each ANM on average will have to deal with an estimated 200 pregnancies and 180 child births each year. The corresponding numbers in Tamil Nadu are 100 pregnancies and 90 childbirths. Despite reaching national norms, overall coverage thus remains low in UP. In addition to the filling of staff vacancies, a high priority for increased funding is for measures to improve the capabilities and performance of practitioners now working in public health services delivery.

5.50 Preventive health care also deserves greater emphasis, particularly for poor women and children. The declines in infant and child mortality rates of the past few decades are traceable, at least in part, to government-sponsored preventive health initiatives including immunization campaigns and installation of clean-water points in rural areas. To reduce the burden on the curative system, these efforts should be intensified. In addition, public agencies and NGOs should focus greater resources on the development and broad-based dissemination of public health information messages aimed at improving community members' capacity to safeguard their own and their children's health.

5.51 As an interesting and potentially valuable alternative to public health care, non-governmental organizations in India have been experimenting with mechanisms to provide informal health insurance to the poor (Box 5.7).

Box 5.7 Innovative Health Insurance Schemes in India

Health insurance is far from widespread across India. The need for health insurance specifically for the poor may be less acute in states like UP, where the burden of disease is still tilted towards communicable diseases rather than costly chronic conditions (e.g. of the elderly) or catastrophic health events. The latter carry high costs that can drive even middle-class families into poverty.

A number of interesting insurance schemes have been tried out in different parts of the country, including:

- *Ambikapur Health Association*, Orissa: Free out-patient care and limited hospitalization is provided to about 75,000 individuals enrolled on a voluntarily basis. The scheme has a number of innovative features, including effective screening at the time of enrollment to avoid adverse selection of participants; however, premiums cover only 10-20 percent of outreach costs of the program.
- *Mallur Milk Co-operative*, Karnataka: Covering a population of 7,000 spread across 3 villages, the scheme provides preventative and curative health care (both out-patient and in-patient) to all eligible community members. Participation is mandatory. Income from endowment fund covers all expenses.
- *Sewagram*, Maharashtra: Free primary care, drugs, referrals, and hospitalization for non-chronic conditions are provided to a population of over 14,000 spread across 12 villages (75 percent mandatory attendance within a participating village). Sliding-scale premiums are employed to promote equity.
- *Melaj Milk Cooperative*, Gujarat: Out-patient consultation, discounted drugs, and diagnostic services are provided by the Aga Khan Health Services. Enrollment is mandatory for all co-op. members.

Amongst the range of complex issues and problems these organizations face, two are of particular importance: (i) suitable arrangements for cost-recovery without excluding the poor, and (ii) moral hazard and adverse selection, both issues having been dealt with by these organizations with varying degrees of success. In addition to the direct services they provide members to insure themselves against health shocks, they have sometimes also helped enhance allocative efficiency of health spending by developing low-cost treatments, or by increasing the utilization of preventative care.

Source: Ranson, 1999.

D. Safety-Net Programs

5.52 Like the education and health programs discussed above, many of India's traditional safety nets for the poor fail to reach the neediest or to provide adequate benefits effectively. Their problems are country-wide and widely recognized; recent reforms have been undertaken and further reforms under consideration by Government. Although the shortcomings are not confined to any one state, performance in Uttar Pradesh is particularly weak, which is unfortunate in light of the high burden of poverty and widespread needs. In order for safety net programs and pro-poor policies to be effective in protecting and enhancing livelihoods, they must be appropriately designed, easily accessible to those who need them, provide a reliable level of high-quality services, and make efficient use of scarce resources. India's wide range of Anti-Poverty Programs (APPs) covering (i) food security and nutrition; (ii) employment generation; (iii) credit; and (iv) social welfare generally do not meet those standards.

5.53 The APPs are centrally sponsored schemes, and thus designed and run in accordance with rules laid out by central government rather than the state authorities, although states provide 25-30 percent on average of the financing. Their mandates, history and operations are summarized in Box 5.8.

Box 5.8 India's Anti-Poverty Programmes (APPs)

The Public Distribution System (PDS), one of India's oldest and most costly programs, consuming about 0.5% of GDP (3% of central government expenditures), provides rationed amounts of wheat, rice, sugar, kerosene and edible oils at subsidized prices through some 400,000 fair price shops throughout the country. After evaluations of the program showed it to be utilized more by the non-poor than the poor, the GOI re-designed its program and launched the T(for Targeted)PDS in 1997. PDS subsidies are allocated according to states' shares of the population living below the official poverty line based on 1993/94 poverty estimates. Under TPDS, the Panchayati Raj Institutions (PRIs) assist in identifying poor households for a Below-the-Poverty-Line (BPL) list for each village. Selection entitles beneficiaries to purchase an established monthly food grain ration of 20 kgs. wheat and rice (raised from 10 kgs to 20 kgs in April, 2000) at about half the market cost. Further measures have been taken to improve targeting and ensure better access by vulnerable groups. Research suggests that significantly higher shares of food grains are reaching the poorer states – for example, off-take of wheat in UP increased from 4.4 percent of the total (207.8 tons) in 1994-95 to an estimated 12.6 percent (695.4 tons) in 1997-98. However, very recent estimates (2000-01) suggest a significant reduction in off-take relative to allocations (46%), and high leakages of food grains.

Integrated Child Development Services (ICDS) is both an early childhood education program and an effort to improve nutritional standards for young children. Its goal is to provide a package of services for children under the age of six that will enhance their physical and intellectual development, including early education, supplemental feeding, growth monitoring, health education for mothers and immunization and physical examinations for children. Vitamin A and iron supplements are also provided under this program. A trained Anganwadi Worker from the community in collaboration with nurses from the formal health system administers services at the Anganwadi (ICDS) Center.

Employment Guarantee Schemes Among the various employment programs for the poor, the *Jawahar Rojgar Yojana (JRY)* and *Employment Assurance Scheme (EAS)* are by far the largest, with allocations in 1997-98 of Rs. 19.5 billion and Rs. 19.1 billion respectively. These rural programs provide paid employment to the poor and unemployed, especially during the lean agricultural season, for work in creating or expanding public infrastructure. Funds under the JRY are devolved to the level of rural villages and managed by the local Pradhan, the elected PRI representative.

In 1999, the JRY was replaced with the *Jawahar Gram Samridhi Yojana (JGSY)* to put greater emphasis on developing demand-driven infrastructure as compared to earlier public works meant to generate jobs as well as physical improvements. Village-level PRIs employ low-income residents to construct or rehabilitate roads, wells, latrines, low-income housing or other facilities useful to the general public. Under the JGSY, laborers are selected from among the local unemployed or underemployed, with preference to be given to the disadvantaged, including members of scheduled tribes and castes, freed bonded laborers and the parents of child workers.

The recently established *Swarna Jayanti Shahari Rojgar Yojana (SJSRY)* serves urban areas only, combining many of the functions of the IRDP and JRY/EAS, including a wage employment and self-employment (micro-credit / micro-enterprise) scheme directed at the urban poor. Funded on a 75:25 basis by the center and states respectively, its principal design feature entails creation and fostering of local organizations and neighborhood groups for the purpose of program administration and other community development activities, with the overall aim of empowering the poor and other socially vulnerable groups. Poor women in particular are urged to participate.

Integrated Rural Development Program (IRDP) Until 1999, the IRDP was India's principal safety net providing credit to the poor so as to "enable identified rural poor families to augment their incomes and cross the poverty line through acquisition of credit based productive assets". (Economic Survey, 1998-99) The program, which was administered through the banking system and funded on a 50-50 basis by the GOI and the states, provided a subsidy on the loan principal, with interest rates fixed for the program at the central level.

In 1999, however, the IRDP was merged with several smaller self-employment programs to establish the *Swarnajayanti Gram Swarozgar Yojana (SGSY)*. The SGSY is essentially similar to the earlier programs in its purpose, but its implementation differs to the extent that it emphasizes the organization of self-help groups. By making small loans available to those who would normally be excluded from formal sources of credit, the program offers poor households the opportunity to invest in a micro-enterprise that could lead to independent self-employment. Simultaneously, it spares them the necessity of turning to the expensive informal sector or exploitative patrons for credit.

Social Welfare Programs. In addition to the APPs, the Government of India supports a number of social welfare programs, including (i) old age, disability, and widows pensions; (ii) accidental death benefits; and (iii) pregnancy benefits. Although information on the coverage and impact of these programs is sparse, analysis based on the Study suggests that while many individuals are aware of their entitlements under the various social welfare programs, few obtain benefits.

5.54 Providing just under one-third of total financing, the Government of UP spent Rs. 1,800 crores on antipoverty and social welfare programs in 1998-99, or an estimated Rs. 110 per person. (Table 5.8) Spending fell in 1999-00 to Rs. 1,600 crores, or an estimated Rs. 95 per person, due to cutbacks in a number of programs (e.g. ICDS, EAS, JRY) and despite a 20 percent increase in spending on the TPDS. A comparison of those sums to budget estimates for Andhra Pradesh, which has the reputation of being a

forward-looking state in terms of social protection, shows AP's per-capita outlays nearly three times those of Uttar Pradesh (1998-99)

Table 5.8 State Spending on Poverty Alleviation Measures, 1998-99, 1999-00

Program	Uttar Pradesh (98-99)		Uttar Pradesh (99-00)		Andhra Pradesh (98-99)	
	Expenditure (Rs. Crores)	Share of State Govt.	Expenditure (Rs. Crores)	Share of State Govt.	Expenditure (Rs. Crores)	Share of State Govt.
1. Targeted Public Distribution System (TPDS)	433.3	-	513.7	-	1612.3	48%
2. Integrated Child Development Services* (ICDS)	101.4	24%	26.9	-	289.7	-
3. Employment Assurance Scheme (EAS)	463.5	24%	408.5	25%	209.2	20%
4. Jawahar Rojgar Yojana (JRY)	503.9	17%	358.0	25%	154.2	20%
5. Integrated Rural Development Program (IRDP)	266.3	50%			89.1	50%
6. Training of Rural Youth for Self Empl. (TRYSEM)	16.7	50%			5.8	50%
7. Supply of Improved Tool Kits (SITRY)	14.7	-			7.6	10%
8. Dev. Of Women & Child in Rural Areas (DWCRA)	28.2	50%			9.4	50%
9. Swan Jayanti Swarojgar Yojana (SJSY)			100.9	25%		
10. National Old Age Pension Scheme	188.2	56%	169.0	52.5%	85.8	-
11. National Family Benefit Scheme	22.6	-	25.03	-	40.4	-
Total	1801.3		1602.0		2438.3	38%
Per Capita Exp. Total (in Rs)	110.52		96.50		312.94	

* The figures for UP for ICDS do not include a large amount of free rations (almost 80 percent of total expenditure) made available by donor agencies like Care and World Food Program. The IRDP, TRYSEM, STRY, and DWCRA schemes were closed since 1999-00. In place of these, an Integrated Poverty Alleviation Scheme, the Swan Jayanti Swarojgar Yojana was launched in April, 1999. Source: Directorate of Economics and Statistics, GOUP

5.55 Annex Table 5.2 describes the criteria for allocating resources – from Center to state, state to district, and district down to the lower tiers of the PRIs for the JGSY, EAS, and SGSY. Measures of anticipated needs (e.g. headcount indices) or backwardness are used to allocate funds to the state and typically down to the district. However, in no case is actual program performance or effectiveness taken into account in the allocation process. As a result, APP spending ultimately rewards regions that perform poorly and continue with high levels of poverty. This lack of performance incentives may well help explain the fact that many of the neediest districts are also recognized as the poorest performers, both in terms of program implementation and final outcomes.

Program Performance

5.56 Available evidence suggests that few of the antipoverty programs or social welfare schemes are performing well in Uttar Pradesh. In addition to problems specific to each program, a number of well-recognized systemic problems are to blame (see, for example, Report of the Comptroller and Auditor General of India (CAG) for the year ended March 31, 1999). States lack political commitment, there is limited transparency or accountability at the local level, and weak incentives to the PDS shopkeeper. As centrally sponsored schemes whose design and rules of implementation are determined by GOI, the programs offer local authorities virtually no flexibility to adapt to local needs. The programs are administered by a multiplicity of agencies, coordination is a problem, which further compromises administrative accountability (Srivastava, 2000a; Saxena, 2001a). In general, the programs are poorly targeted, and evidence suggests that they are particularly ineffective in UP's most backward regions, where the incidence of poverty is high.

5.57 Public Distribution System. Despite its many acknowledged problems, qualitative field work done in the late 1990s revealed surprising levels of support for the PDS. A number of poor informants cited the program's importance in providing for food security in times of need. And the need is clearly there. The poor are net purchasers of grains: analysis based on the UP/Bihar Survey of Living Conditions shows that 50 percent of the poorest 20 percent of households purchase foodgrains from the market, while only 15 percent of the households in the wealthiest 20 percent of the welfare distribution do the same. In addition, food scarcity varies over the year; an estimated 30-35 percent of rural household reported consuming less than "two square meals a day" during the lean seasons of Jan/Feb and July/August/September. Food availability was much higher during the wheat harvest when under 3 percent of households actually purchased grains from the market.

5.58 Both the flow of grains to the state and the targeting of poor beneficiaries have improved with the advent of the TPDS and the concomitant involvement of PRIs in selecting beneficiaries. Tabulations based on the UP/Bihar Poverty Study, for instance, show that rural households in the poorest 20 percent of the welfare distribution were almost four times as likely to appear on the Below-Poverty-Line lists than were those in the wealthiest quintile (Kriesel and Zaidi, 1999). Landlessness and low caste identity were particularly good predictors of which households would appear on the list, suggesting that, in the absence of clear information on income, many PRI officials had used these criteria as proxy variables to discriminate the poor from the non-poor. Given that both these variables are highly correlated with poverty incidence in UP, the PRI choices resulted in better targeting in the assignment of TPDS ration cards as well as in the allocation of food grains. More recent estimates based on the NSS 55th Round suggest similar results; wealth matters, but caste has an additional impact (Table 5.9). Many households on the list do not purchase foodgrains on a regular basis. Interestingly, 63 percent of BPL households purchased sugar in the 30 days before the survey as compared to 27 percent purchasing foodgrains. Despite evidence of better targeting, there remain significant leakages of subsidized grains to the non-poor, and a substantial amount of grains simply disappear from the system – the latter estimated for UP at 46 percent for wheat and 49 percent for rice in a recent study undertaken for the Planning Commission. According to the CAG report (1999), slum dwellers in 4 out of 10 test districts were not reached by the program and an estimated 20 percent of the PDS cards were in fact bogus.

Table 5.9 Rural Entitlements and Purchases from the TPDS, Past 30 Days, 1999-00

Percentage of Households who:	Per Capita Consumption Quintile (Percent)					Overall
	Poorest 20%	2 nd Quintile	3 rd Quintile	4 th Quintile	Wealthiest 20%	
Are on the BPL list (%)	41	31	27	24	18	29
-SC/ST on BPL list (%)	52	47	46	42	33	46
Purchased Rice	14	12	9	13	9	11
-SC/ST Purchased Rice	22	21	17	19	13	19
Purchased Wheat	13	11	8	12	9	11
-SC/ST Purchased Wheat	20	20	16	19	13	18
Purchased Sugar	63	63	68	68	68	66

Source: NSS 55th Round, UP State Sample.

5.59 A number of new schemes were launched in 2000 and 2001 to better target the flow of grains to the most needy, and new cards introduced that differentiate between various groups of beneficiaries based on need. (Box 5.9)

Box 5.9 Recent Efforts to Improve Targeting of Foodgrains Through the PDS

The Government of UP now uses four channels to distribute grains through the Public Distribution System:

The Antyodaya Anna Yojana scheme was launched in 2000 with the aim of targeting India's poorest households. Under the scheme, the poorest are described as households unable to consumed two square meals each day on a sustained basis. An estimated 5 percent of India's population constitute the Antyodaya program's target population. Under this scheme, each family is entitled to 25 kg of food grains each month at the subsidized rate of Rs. 2.5 per kg for wheat and Rs. 3 per kg for rice. This is a considerable subsidy – the market rate for foodgrains in 2000-01 was Rs. 8.3 for wheat and Rs. 11.3 for rice. Beneficiaries are issued a *red* ration card.

The Annapoorna Yojana scheme was also introduced in 2000 and targets people 65 years of age and older who live in families falling below the poverty line. The program distributes 10 kgs of rice free of cost to 20 percent of those eligible under the Old Age Pension Scheme. The Annapoorna beneficiaries are given *green* ration cards.

Grains are still distributed to BPL (Below-Poverty-Line) and APL (Above-Poverty-Line) households. The government introduced a dual pricing system with a subsidized rate for BPL households and a near-market rate for APL households. In UP, BPL households receive 25 kgs of grains at Rs. 6.15 per kg of wheat and Rs. 4.65 per kg of rice, while APL households are obliged to pay Rs. 8.3 per kg of wheat and Rs. 11.3 per kg of rice. As of April, 2001, APL households are issued *yellow* cards and BPL households are issued *white* cards.

Source: Economic Survey of India, 2001

5.60 Despite the improved targeting, errors persist both of inclusion and exclusion and many of the poorest households were discouraged from using the program by distance and irregular hours of operation, lack of information as to when grains would be available and frequent lack of funds to purchase the full monthly grain allocation at one time, as the program requires. In terms of area-level targeting, regional estimates suggest that the state-wide allocation of PDS food grains based on the aggregated BPL list does not match well with regional poverty estimates from recent NSS surveys. (Table 5.10). The Rural Development Department recently revised BPL allocations across districts in the state (Figure 5.3); interestingly, the new regional allocations correspond more closely with regional headcount estimates from the mid-1990s as compared to more recent estimates from the NSS 55th Round. While poverty levels appear to have fallen in UP, some 39 percent of households are still on the BPL list. Districts in the central and particularly northeastern regions of the state receive a higher per-capita share of food grains.

Table 5.10: Regional Poverty Incidence and Allocation of PDS Subsidies

Region	Poverty Incidence 1993-94 NSS			Poverty Incidence 1999-00 NSS		
	Percent Individuals	Percent Households	Adjusted Ratio	Percent Individuals	Percent Households	Adjusted Ratio
Himalayan	22.5	39.6	1.76	-	-	-
Western	29.8	23.5	0.79	23.9	20.1	0.84
Central	46.7	48.5	1.04	39.7	46.2	1.16
Eastern	47.5	40.7	0.86	35.9	48.5	1.35
Southern	68.9	36.8	0.53	24.4	42.0	1.72
<i>Uttar Pradesh</i>	<i>40.9</i>	<i>36.9</i>	<i>0.90</i>	<i>31.0</i>	<i>39.1</i>	<i>1.26</i>

Source: NSS 50th Round, NSS 55th Round, UP/Bihar Survey.

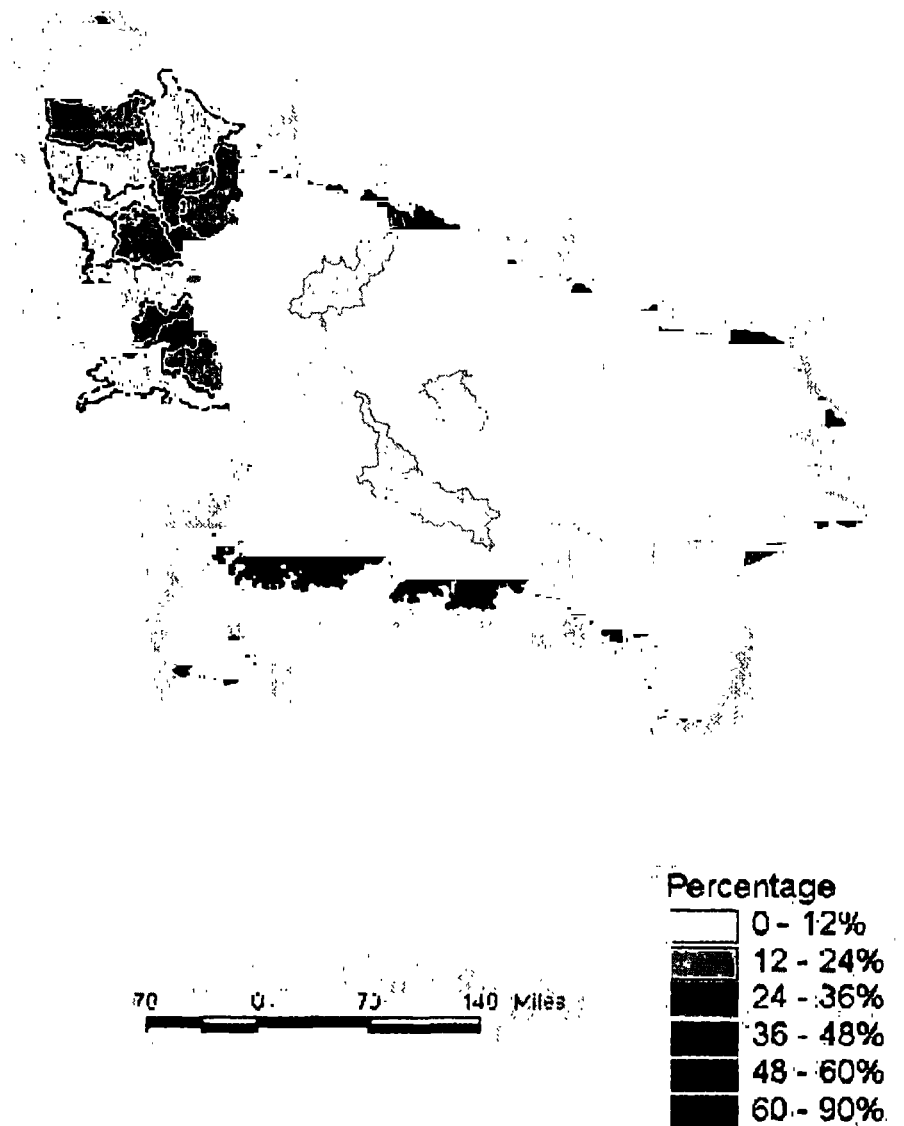
Poverty Incidence: Percentage of individuals living below the Expert Group-recommended poverty line.

% of BPL households: Percentage of households below the poverty line (BPL).

Adjusted Ratio: BPL/NSS poverty rate, adjusted to take into account lower overall BPL rates compared to NSS estimates.

Figure 5.3

Percent of Official BPL Households



5.61 The future of the PDS is uncertain. Efforts are underway within Government to rethink the role of the PDS within the overall context of ensuring greater food security for the nation's poor. Food subsidies (including those provided under ICDS and the Mid-day Meals Scheme) are only one element of India's food security efforts; food procurement and buffer stock operations are likewise important. As noted in Chapter 4, there is a need for government to move more aggressively to phase out controls over grain markets as well as procurement and a reduced role for the Food Corporation of India (FCI)

(Radhakrishna and Subbarao, 1997). If the PDS is continued, changes are needed to ensure that the program offers maximum benefit to poor beneficiaries. Greater transparency and accountability in the administration and implementation of the system could trim wastage significantly, as could closer supervision and monitoring of distribution and accounting (World Bank, 2000a). Given the patterns of UP agriculture that provide even the rural poor with substantial access to cereals during the peak season, food security schemes must focus on flexibility and removal of shortages during the lean season. (Srivastava, 2000a). As noted in recent work by the Planning Commission, thought should be given to using alternative distribution channels, e.g. food-for-work schemes and allocation to old-age pensioners (Saxena, 2001a).

5.62 Integrated Child Development Services. While there are grounds for optimism in connection with the TPDS, the performance of the ICDS is far below expectations. Evaluations suggest that only slight improvements in nutritional status have been achieved, and there are indications that the amount of food distributed and the number of children participating have been over-reported (World Bank, 2000a). Findings of the UP/Bihar survey indicate that, in the UP sample, less than 5 percent of any income quintile group reported that their child under age six had attended an Anganwadi Center (or other government pre-primary program) during the preceding three months (Table 5.11). Only 40 percent of villages covered in the survey were reported to have an Anganwadi Center, and of these only half were actually operating on the day of the survey. If the sample is limited to only villages with a center, 10 percent of children aged 3-6 were reported to have visited the center during the three months preceding the survey. And services appeared to function better in centers where a "volunteer" from the village was engaged to provide assistance.

Table 5.11 Use of Selected Government Programs by Per-Capita Expenditure Quintile

	Poorest 20%	2 nd Quintile	3 rd Quintile	4 th Quintile	Wealthiest 20%	Overall
1. Children visiting a Government ICDS center during the past 3 months (%)	3.7	3.3	2.5	3.4	4.6	3.5
2. Casual wage laborers employed under a GOI employment scheme (%)	1.6	2.2	2.0	3.5	1.7	2.1
3. Households obtaining an IRDP loan in the past 5 years (%)	8.5	9.4	11.3	12.8	7.3	9.9

Source: UP/Bihar Poverty Study, 1998, survey tabulations.

5.63 The design of the program has been criticized on the grounds that the array of tasks assigned to the Anganwadi worker is over-ambitious and that training is too brief and inadequate. Of those surveyed in the UP/Bihar poverty study, only 20 percent had received some training during the past year. Although changes in program design are beyond GOUP's administrative powers, implementation could be significantly improved even within the existing operating framework. For instance, in many cases, local-level supervision appears nonexistent. Informants in the UP/Bihar Study reported that grain distributed to the Centers was sometimes sold as animal feed, and in some cases Anganwadi workers had been chosen from among women of the village elite who had no intention of actually opening the Center or offering designated services.

Employment Guarantee Schemes

5.64 Workfare schemes are well-regarded in India, building on the very successful Maharashtra Employment Guarantee Scheme (EGS). However, among casual wage laborers in UP responding to the UP/Bihar Study survey questionnaire, very few reported having performed any work under the JRY

during the past 12 months, even though GOI estimates that close to 1 billion days of employment are generated under this program each year. Analysis of the NSS 55th Round state-sample shows similar outcomes – only 1.2 percent of rural households reporting working under the JRY or other public works schemes in 1999-00. Field studies suggest that contractors often are used to build village infrastructure, and, despite rules of the program, they rarely hire from the pool of unskilled laborers available in the community where the project is being built (Box 5.10).

Box 5.10 Transparency and Accountability Under JRY Activities

Despite being managed at the local level and clear requirements for local participation and accountability design and implementation of community infrastructure projects, the actual experience – in the eyes of poor villagers – from the JRY is sobering. For example, in Banda district wells had been repaired and bridges built under JRY, but among those interviewed, none said they had received employment under those schemes. Researchers were told that one Pradhan has recorded that a project had been executed in a basti (hamlet) populated primarily by a Scheduled Tribe when in fact it has been carried out in his own upper-caste basti. In another reported instance, villagers who had performed some work under a JRY project claimed not to have been paid.

Particular problems of lack of transparency and accountability at the local level were highlighted in one of the field visits done as a part of the UP/Bihar Study. Villagers were asked what facilities had been built under JRY over the past year. They described how 5 latrines had been built and located each of these on a village map drawn by participants. A visitor from a nearby village began to laugh and berate the group. He pointed to a well-dressed man standing off to one side, watching the proceedings and asked whether he was the contractor who had been hired under JRY to build the latrines. The group agreed that this was so. And wasn't he also the cousin of the current Pradhan or village headman, who was responsible for administering JRY funds? The group again agreed that this was the case. The well-dressed man began to look uncomfortable. The visitor then said that 15 latrines had been sanctioned under JRY, not the 5 that were actually built. Did they know that funds for building 15 latrines had already been transferred to the Pradhan, despite the fact that only 5 were built? The local group became angry and began to shout at the cousin, who hurried away.

Rumor is that the contractor has not appeared again in the village.

Source: UP/Bihar Poverty Study, 1998, field visits.

5.65 As the JGSY has only recently been introduced, it is still too early to assess its performance. However, if past performance of the JRY in UP is to provide any lessons, the single, most important factor in determining the programs' success will lie in making institutional arrangements to ensure that the poor have a meaningful stake in implementation. For instance, greater transparency in the planning of local projects and assignment of labor, as well as greater say by the general public in deciding how project funds are used would enhance accountability and improve the functioning of these programs.

5.66 In some of the villages visited in the course of the UP/Bihar study, the JRY program was widely appreciated because it had been responsible for the installation of useful infrastructure of common benefit. In this regard, the new JGSY is on the right track in that it builds on the successful aspect of the older programs by emphasizing the infrastructure component as opposed to the less successful employment component. Generation of employment, though undoubtedly also important in its own right, is rightly treated as a secondary consideration, particularly given that hard physical labor is often not possible for the destitute who may be sick, disabled, or burdened with the care of small children. Moreover, employment guarantee and work fare schemes typically perform better in periods of severe distress, as was the case for the Maharashtra EGS (Ravallion, 1997). Rather than using current work fare schemes as a general safety net across rural India, Government should consider developing more flexible systems so that the program can be geared up quickly e.g. when a severe drought occurs, and geared down when the need is no longer there.

Subsidized Credit Schemes

5.67 **Integrated Rural Development Program.** Launched by GOI in 1979 to provide poor households with subsidized credit through commercial banks for productive investments, the IRDP has suffered from a number of shortcomings. Along with insufficient attention both to institution-building and to the development of necessary skills for borrowers, it has also failed to adapt its credit instruments

to serve the real financial needs of the poor.

5.68 A major, built-in problem with subsidizing credit is the artificial limit it imposes on the total volume of loans the government can afford. Rather than being responsive to demand, lending is constrained by the total budget available for the subsidy. Households suffer when they are unable to borrow what they want at the prevailing interest rates. Additionally, the limit opens the door to discretionary action and corruption on the part of program administrators who determine who does and does not get access to loans. Further, the ceiling placed on the maximum interest rate also limits the rates that bank managers can offer on savings deposits, thus undermining savings mobilization in the rural economy. There is an urgent need to raise interest rates, at least match those prevailing in the market, and reduce distortions and corruption.

5.69 The findings of the UP/Bihar study confirmed the prevalence of these problems. As shown in Table 5.10, less than 10 percent of the poor took an IRDP loan in the past five years, despite the fact that about two-thirds of households in the lowest consumption quintile reported that they were in debt at the time of the survey. Over 85 percent of the households that had borrowed from the IRDP reported having to pay someone else to receive the loan, with the amount of payment averaging over 20 percent of the total borrowed. Furthermore, during the qualitative interviews and focus group discussions, complaints surfaced about the terms of the contract and repayment schedules, which illiterate borrowers, especially, thought unclear, and about officials' often skimming the government subsidy.

5.70 Moreover, when asked why they did not seek an IRDP loan, some said the loans actually increase a household's debt burden without improving its earning potential. Many of the loans were used to finance marriages or consumption shortfalls rather than for investment or self-employment. The fact that the loans were used to finance consumption rather than investments is not cause for concern *per se*; credit plays an important role in reducing vulnerability of poor households by helping them smooth consumption over time. The practice does, however, highlight the diversity of the poor's credit needs and suggests that not all poor households have the entrepreneurial experience or business expertise to use such loans more productively. There is a pressing need for better access to credit for consumption smoothing, especially for the very poor.

5.71 The new SGSY attempts to redress this shortcoming by offering training in technical and management skills to borrowers, as well as marketing support where needed. These additions may correct some of the deficiencies of the micro-credit/self-employment program strategy, but better supervision and accountability in program operations will remain a critical determinant of success. Without improvement in that area, potential borrowers may still be discouraged by various barriers to access as well as by corrupt administration of loans.

Micro-credit Alternatives

5.72 Experiences with micro-credit, both within the region as well as in other parts of the world suggest that group-based lending programs with active community participation have far higher, long-term chances of success than conventional government-run initiatives. Even after the introduction of the SGSY program, anti-poverty policy-makers in India urgently need to work on designing – and more appropriately, facilitating implementation of programs -- that can capitalize on informal social networks and local knowledge to provide financial services to the poor and help raise local savings. Four examples below (Box 5.11) illustrate some of the innovative design features of alternative credit programs.

5.73 The credit intermediaries discussed above are only a few examples of micro-credit and insurance innovations that have been tried out recently in India and elsewhere. Their successes in providing credit and savings services to the poor offer a number of important lessons. First, these institutions clearly embody good alternatives to the IRDP-style subsidized credit provision model. Second, their successful implementation of both individual and group-based lending approaches suggests that no fixed rules govern operations; what works is to foster flexible institutional arrangements over time that are well-suited to local needs. Finally, the success of these organizations in expanding and deepening the deposit base highlights the important, though often neglected, role that savings can play in reducing vulnerability. Promoting savings through offering more attractive returns as well as more flexible deposit arrangements not only increases the cushion available to protect against shocks, but also helps generate more funds that can be productively invested in the local economy.

Box 5.11 Innovative Micro-credit Programs

Grameen Bank: A pioneer in promoting the concept of group-based lending throughout the world, Bangladesh's Grameen Bank now has over 2 million members, 95 percent of whom are women. Average loan balance is about \$134, with about \$30-40 million extended per month in loans at 20 percent nominal interest rate, typically for one year duration. While no formal collateral is required, the Bank relies on local enforcement mechanisms for repayment, and if any member of the group of five borrowers defaults, the entire group is cut-off from further credit. Rather than provide a one-off loan, the Bank encourages long-term relationships with its clients; according borrowers access to progressively larger loans once they have established a good track record of repayment. Another innovative feature of the lending approach is the weekly repayment schedule that encourages credit discipline while helping to provide early warning of potential problem loans. Reported repayment rates average over 95 percent, though these rates have been somewhat lower in recent years. To be a fully sustainable financial institution, the Grameen Bank would most likely have to charge a higher interest rate of its clients, but the management has been reluctant to raise rates further and risk making its loans unaffordable.

BancoSol: Unlike Grameen Bank, Banco Solidario in Bolivia operates in urban areas only, and gives financial viability priority over social development objectives. The Bank also relies on group-lending to "solidarity groups," though about 28 percent of its portfolio is backed by some kind of guarantee beyond just the solidarity group. Typically, larger amounts are lent (\$909.) Rates of interest (around 50 percent in nominal terms) are also considerably higher than Grameen's, though not necessarily above the charges of local money lenders. As a result, the Bank does not offer any subsidy as such on its loans; however, flexible repayment schedules and duration allow clients to choose terms that best suit their needs. Repayment rates that have been impressive appear to have worsened somewhat in recent years. Nonetheless, the Bank is one of the most important players in Bolivian banking, servicing about 40 percent of borrowers in the system. Although the Bank focuses on providing services to poor clients, evidence suggests that borrowers are not necessarily amongst the poorest of the poor. Typical clients are clustered around or just above the poverty line.

Bank Rakyat Indonesia (BRI): The Bank serves about 2 million borrowers through its *unit desa* (village banking) system, charging interest rates ranging from 32 to 43 percent depending on the repayment period. Unlike Grameen and BancoSol, BRI does not rely on group-based lending, but instead requires collateral from individual borrowers. However, collateral is often defined loosely, and staff has some discretion in increasing the size of the loan to borrowers who are deemed reliable and have a good track record. The Bank lays considerable emphasis on attracting deposits through its extensive network of branches and village service points, having mobilized \$2.1 billion by 1994 from 12.2 million depositors. Perhaps the Bank's most impressive achievement has been the efficiency of its operations: operating costs (including the cost of mobilizing savings, the volume of which is twice outstanding loans) accounted for 14 percent of the average outstanding loan portfolio in 1994. While not necessarily reaching the poorest clients, BRI's *unit desa* operation is financially self-sustaining – it realized a profit of \$175 million on its operations in 1995.

Self-employed Women's Association (SEWA) Bank: India's SEWA Bank, started in 1974 with around 4,000 members, initially acted mainly as a financial intermediary borrowing from commercial banks to lend on to its members. The Bank eventually started taking deposits from members and successfully lobbied the government for credit on subsidized terms. It has subsequently expanded to more than 80,000 members, making loans to self-help groups of women. Innovative features of the bank include extensive use of mobile units to mobilize savings, non-stringent collateral requirements, simplified loan approval process that typically takes a week or less. If jewelry, PDS cards, etc. are offered as collateral, the loan is often approved the same day. One of the most important contributions of the program has been to free some women from the crushing burden of debt servitude by allowing them to replace high-interest debt with lower-interest debt from SEWA. The SEWA Bank has recently received a loan from Housing and Urban Development Corporation Limited (HUDCO) and received permission from Reserve Bank of India (RBI) to extend services to rural areas.

Source: Morduch, 1999, and Jacob Yaron, SBP-AGRPW, <http://www.soc.titech.ac.jp/icm/country/unit-desa.html>.

Coping Strategies of the Poor

5.74 One reason that access to credit, subsidized or not, is so important to poor households is their vulnerability to the kind of shocks – a harvest failure, the illness or death of a breadwinner, for example -- that can pitch them into destitution. Where better-off families may be able to weather such drastic setbacks without losing their hold on savings or productive assets, the poor can be forced to take out unsecured loans or sell or pawn the few belongings they possess, including their land (Table 5.11). Children may be taken out of school, reducing future stocks of human capital and future streams of earnings. Migration in search of employment and introducing previously non-working family members – usually women or children – into the labor market are also common coping mechanisms. In focus group discussions on the characteristics of poverty, informants in some villages mentioned that working mothers or children were found mainly in the poorest households.

5.75 Such desperate actions force the affected households to rely on intermittent, low-paid casual labor for income. One villager interviewed in southern UP reported that his family had pawned even its cooking utensils when forced to seek a loan from a wealthier household. In the worst cases, a serious crisis can sharply cut the food intake of some or all members of the household. Even under normal conditions, up to a third of households surveyed in the UP/Bihar poverty study reported going without two square meals a day during the trough of the lean season.

Table 5.12 Financing of Illness-Related Expenditures by Quintile (Percent)

Means of Financing	Poorest 20%	2 nd Quintile	3 rd Quintile	4 th Quintile	Wealthiest 20%	Overall
Savings	68	69	77	82	92	77
Sale of Assets	5	2	2	2	1	3
Unsecured Loans	23	23	19	14	7	18
Mortgagor Assistance	3	6	2	2	1	3
Total	100%	100%	100%	100%	100%	100%

Source: UP/Bihar Poverty Study, 1998.

5.76 The poor also use precautionary coping strategies to protect their basic livelihood in the event of an unexpected set-back. Those with occasional small surpluses may save in anticipation of future need. In some cases, surpluses are lent interest-free to relatives or neighbors who are experiencing a crisis. The result is the establishment or reinforcement of the lending household's social capital or network of mutual support and assistance. These networks of relationships and organizations that can be called upon in times of need may be the low-income household's most valuable resource.

5.77 Loans are taken as well to cope, for example, in the event of a sudden illness or natural disaster. In rural areas, the poor often borrow from individuals of higher caste standing who are more powerful in the local context, and often charge high interest rates (Table 5.12). According to the results of the UP/Bihar Poverty Study, indebtedness was concentrated among the poorest households where the average outstanding debt was four times monthly consumption. In such circumstances, there is a high risk that chronic indebtedness and even debt servitude may arise. More commonly, the laboring members of the indebted household are required to work at least part-time on the creditors' fields often at wages significantly below market rates.

Table 5.13 Sources of Loans and Overall Prevalence and Magnitude of Indebtedness by Consumption Quintile

Source of Loan(Percent)	Poorest 20%	Quintile2nd	Quintile 3rd	Quintile 4th	Wealthiest 20%	Overall
Employer	4	4	5	1	4	4
Trader/Money Lender	19	23	20	30	35	24
Relative	17	17	18	23	17	18
Similar Caste Person	14	18	18	13	8	14
Higher Caste Person	40	19	28	24	22	28
Lower Caste Person	3	9	3	3	2	4
Credit Group	-	3	-	2	-	1
Institutional Source/Bank	1	4	6	5	12	5
Other	1	4	2	-	-	2
Total	100%	100%	100%	100%	100%	100%
<i>Percentage of households with debts outstanding:</i>	<i>70</i>	<i>53</i>	<i>54</i>	<i>54</i>	<i>32</i>	<i>52</i>
<i>Average amount owed as a multiple of monthly expenditures</i>	<i>3.98</i>	<i>3.20</i>	<i>2.77</i>	<i>2.23</i>	<i>1.36</i>	<i>2.71</i>

Source: UP/Bihar Poverty Study, 1998.

5.78 Additionally, risk-prone households often smooth income flows by making conservative production or employment choices and diversifying economic activities (Morduch, 1999). For example, farmers in Palanpur, an extensively researched village in Uttar Pradesh, were found to use considerably less fertilizer than one might otherwise expect. These seemingly self-defeating choices were consistent with the entirely rational strategy of minimizing losses in potentially bad times (Bliss and Stern 1982).

ANNEX I

CORRECTING OFFICIAL 55TH ROUND POVERTY ESTIMATES

1. Deaton (2001) has developed a procedure for adjusting the poverty estimates from the 55th Round to make them comparable with earlier large rounds, particularly with the 50th Round. The method is needed due to changes in survey methodology – in particular, changes in the recall period for some food and non-food items – that renders 55th round estimates inconsistent with poverty estimates from earlier rounds of the NSS.

2. The method exploits certain regularities in the data over time. In particular, there is a group of goods where are measured the same way across all rounds of the NSS that fall into six broad categories: fuel and light, miscellaneous goods, miscellaneous services, non-institutional medical services, rent, and consumer cesses and taxes. Information on these items has always been collected using the 30-day reporting period. The first four are important items, and expenditures on the first three are reported by virtually all households. Non-institutional medical expenditures are also important on average, with a mean that is comparable in size to expenditures on miscellaneous goods or expenditures on miscellaneous services, but they are incurred by less than half of households over a 30-day period. Taken together, expenditures on the six broad categories account for more than 20 percent of all expenditures, and more in urban areas. Moreover, total expenditure on these “30-day” goods is also highly correlated with total household expenditure; in the 50th Round, the correlation between the logarithm of total household per capita expenditure and the logarithm of per capita expenditure on these 30-day goods is 0.79 and 0.86 in the rural and urban sectors respectively. Therefore, the paper uses the expenditures on these comparably surveyed goods to get an idea of trends in total expenditures, and therefore, of trends in poverty.

3. Rather than estimating per capita expenditure as a first stage and then going on to estimate poverty, the paper uses a more direct procedure. Denote the logarithm of household total expenditure per head by x , and the logarithm of total expenditure per head on “30-day” goods by m . The logarithm of the poverty line is written z , and everything is measured in constant price rupees. If the headcount ratio is denoted by P , the equation can be written as :

$$P = \int_0^z f(x) dx = F(z), \quad (1)$$

where $f(x)$ is the density function of the logarithm of per capita expenditure and $F(x)$ is its cdf. If instead of the marginals of x , the distributions conditional on m are used, Equation (1) can be rewritten as

$$P = \int_0^z \int_0^\infty f(x|m) g(m) dx dm = \int_0^\infty F(z|m) g(m) dm, \quad (2)$$

where $g(m)$ is the density function of the logarithm of expenditure on 30-day goods m .

4. Equation (2) cannot be evaluated using data from the 55th Round any more than can equation (1). However, if there are grounds to suppose that the headcount ratio conditional on m , $F(z|m)$, is constant over time, and if the density of m , $g(m)$, is the same in the 55th Round as it would have been with a traditional schedule, then we can use the marginal of m from the 55th

Round together with the conditional headcount function from an earlier round to compute $F(z | m)$ to compute headcount estimates. In particular, the paper uses the 50th Round to compute the headcount conditional on m and estimate the 55th Round poverty rate according to

$$\hat{P}_{55} = \int_0^{\infty} \hat{F}_{50}(z | m) \hat{g}_{55}(m) dm, \quad (3)$$

where the “hats” denote estimates, and the subscripts denote the relevant NSS rounds.

5. Why might the assumptions be valid? The easiest of the two is that the density of m is the same in the 55th Round as it was actually conducted, as it would have been had the 55th Round been run in the traditional way. Furthermore, the questionnaire for the 30-day goods is identical to earlier questionnaires, so the issue is whether changes elsewhere in the questionnaire altered the responses to the parts that remained the same. This is certainly possible, although there is no reason to think so. There is also relevant evidence from the thin rounds, which can be used to compare the distributions of 30-day goods in Schedule 1 and in Schedule 2, where the questions on all the other goods were different. Tarozzi (2001) runs these tests and is unable to reject the hypothesis that the distributions of reported expenditure on 30-day goods are the same in the two Schedules.

6. The stability of the function $F(z | m)$ depends, among other things, on the stability of the Engel curve relating the logarithm of expenditures per capita on 30-day goods to the logarithm of total household expenditure per capita. If this Engel curve is stable over time, and the distribution of its error term does not change, then the fraction of people who are poor at any given level of m will be constant. Note that it is *not* required that expenditure on 30-day goods be a fixed ratio of total expenditure, only that the relationship between them remain stable. To see how this works, and to see potential problems, suppose that the Engel curve can be written

$$m = \varphi(x) + u$$

where $\varphi(x)$ is monotone increasing in x and the cdf of u , which is independent of x , can be written $H(u)$. Then we have

$$F(z | m) = \Pr(x \leq z | m) = \Pr[u \geq m - \varphi(z) | m] = 1 - H[m - \varphi(z)], \quad (5)$$

7. By (5), the regression of poverty on m , $F(z | m)$, will be constant over time if the Engel curve remains fixed, and if the distribution of u remains constant. The equation also highlights a potential source of difficulty. If the Engel curve depends on other variables, perhaps most obviously on relative prices, and if these variables shift, the poverty regression will also shift, and the estimates will likely be biased. If such variables are identifiable, and if the data are available, they can be used to condition the distribution of x along with m in equations (2) and (3). Note finally that, while it is useful to consider the Engel curve when justifying the procedure, the estimation does not work with the Engel curve nor its inverse, the projection of total expenditure on 30-day expenditure, but directly with the regression of poverty on 30-day expenditures through equation (3).

8. Without the missing data from the 55th Round, there is no way of checking the validity of the assumption. But once again robustness can be checked by calculating the regression

functions $F(z|m)$ from the thin rounds—albeit less precisely than for the 50th $F(z|m)$ Round—and the results inserted into (3) in place of the estimates from the 50th Round.

9. The method has been used to calculate the corrected poverty estimates presented in Chapter 1 of this report. Using data from the 50th Round first, the paper calculates a dummy variable for each household indicating whether its members are poor or not, according to whether its household per capita expenditure is below the official poverty line for the 50th Round. When the calculations are for all India, the all-India poverty line is used, and when they are for UP, the official UP poverty line is used. All calculations are done separately for urban and rural sectors. A locally weighted regression procedure is then used to locally regress the poverty dummy on the logarithm of 30-day expenditures. The procedure is repeated at each point on a 50-point grid. These regressions are weighted by the NSS-supplied household inflation factors multiplied by household size so that everything is effectively done at the individual, not household, level.

10. Turning to the 55th Round, the 30-day expenditures are deflated by the consumer price index implicit in the appropriate official poverty line. For example, the official poverty line for rural Bihar was 212.16 rupees in the 50th Round and 333.07 rupees in the 55th Round, so that the deflator for rural Bihar is 333.07 divided by 212.16. While it might be preferable to work with a price index for the 30-day goods, the real issue is the stability of the Engel curve with respect to changes in relative prices, which the preliminary calculations suggested was not too much of a problem. After deflation, a kernel density estimate for the logarithm of deflated 30-day expenditures is estimated using the same grid points as in the 50th Round regression. The corrected poverty estimate is then a weighted average of the 50th Round regression predictions using the estimated density weights.

ANNEX II

AN ALTERNATIVE METHOD FOR ESTIMATING POVERTY LEVELS

1. As a complement to direct measurement, Chapter 1 also includes projections of poverty post 1993-94 based on a model calibrated to the time series data of past NSS poverty headcount estimates. The procedure is outlined in Datt and Ravallion (2002) and empirical work presented in Datt, Kozel, and Ravallion (2001). The essential features are that (i) the model is calibrated on state-wide poverty measures and (ii) it relaxes the almost universal assumption in past work that poverty responses to growth are the same across all states. Thus it allows for state-specific growth elasticities of poverty. In an earlier study, Ravallion and Datt (2001) attempt to explain the inter-state differences in growth elasticities in terms of initial conditions at state level. The paper conditions out interstate differences in the levels of poverty, by including state fixed effects. It also allows for state-specific time trends as well as state effects in other time-varying factors that could well bias the results if they were omitted.

4. *The Model.* In modeling the impact of growth on poverty in India, the simplest starting point would be a regression of the poverty measure on mean income or consumption.¹ This is too simple a model to capture the many factors that influence poverty outcomes. It is extended to allow for inter-state and inter-sectoral differences in the growth elasticities of poverty, and for differences in the sectoral composition of growth. Recent research has shown that India's states vary enormously in terms of initial conditions that are relevant to how much impact economic growth will have on poverty (Ravallion and Datt, 2001). Those differences also lead one to expect that the sectoral composition of growth will matter more in some states than others; in a state with high literacy, for example, there could be more scope for reducing poverty through non-agricultural growth.

5. The method also allows for differences in state development spending, which can have a differing impact across states. And it allows for the differing effects of inflation across states. Datt and Ravallion (1998) argued that the main channel through which inflation mattered to India's poor was through its short-term adverse effect on the real wage rate for unskilled labor. While the rate of inflation varies little between states, it might also have a differing impact in different states, according to differences in labor market conditions.

6. Because the objective is to model the evolution of poverty over time rather than levels, the method controls for differences between states in the initial level of poverty, i.e., by including state dummy variables in all regressions.² As usual in fixed-effects regressions, this also means that the results will be robust to endogeneity introduced by the correlation of the explanatory variables with the time-invariant state-specific effects. To allow for any omitted (time-trended) variables state-specific trends are included.

¹ Another possibility is to use the analytic properties of poverty measures to derive the changes in measured poverty with growth in the mean. However, this has two problems for our purposes. Firstly, it also requires an assumption about how the Lorenz curve is going to shift; distribution neutrality is a common assumption, but in practice distributions do change from one survey to another — even when there is little long-run trend. Secondly, it requires an assumption about how much the growth in aggregate output will be passed onto the survey mean consumption. Our approach effectively “solves out” these problems, by looking directly at how the poverty measures move with growth in output.

² Alternatively one can interpret the regressions as models of the deviations from time mean or the rates of poverty reduction (difference in logs) as functions of the similarly transformed (state- and time-specific) explanatory variables.

7. Combining these features, the following econometric model is used to predict poverty:

$$\ln P_{it} = \beta_i^N \ln NFP_{it} + \beta_i^F \ln YLD_{it} + \beta_i^G \ln GOV_{it} + \gamma_i \ln INF_{it} + \pi_i t + \eta_i + \varepsilon_{it} \quad (i=1, \dots, n; t=1, \dots, T) \quad (1)$$

where P_{it} is the measure of absolute consumption poverty (on a per capita basis) in state i at date t , NFP_{it} is real non-farm product per head of the population in state i at date t , YLD is farm yield (output per hectare),³ GOV is real state development expenditure per capita, and INF is the inflation rate. The state effect is η_i and ε_{it} is an innovation error term.⁴ Consistently with Datt and Ravallion (1998a,b), the paper found that the fit of this model was improved if it used the two-year moving averages of $\ln YLD$ and $\ln NFP$, and the lagged value of $\ln GOV$.

8. To be as flexible as possible, all the β_i 's were initially allowed to vary by state. Since it has state fixed effects and state-specific time trends as well as differing effects of inflation, estimating equation (1) is then equivalent to running a separate regression for each state.

9. However, a degree of pooling was found to be consistent with the data. In particular, it was not possible to reject the null hypothesis of constant coefficients across states at the 10% level or better for all variables except non-farm output per person, and the state effects in the intercept. Thus a constant-coefficients restriction is imposed for YLD , GOV and INF , leaving the coefficients on NFP free to vary between states while also retaining the state fixed effects. In addition, although we could reject the null hypothesis of common time trends across states, we decided to retain state-specific trends in order to maintain a more general specification.

10. **Data.** The model is calibrated using measures of absolute poverty for India's 15 main states using distributions of per capita consumption from 20 rounds of the National Sample Survey (NSS) spanning the period 1960-61 (round 16) to 1993-94 (round 50) at intervals of 0.9 to 5.5 years. All 20 rounds of the survey are covered for the 15 major states except Jammu and Kashmir, where surveys were not held for the 48th and 50th rounds due to the prevailing political unrest.⁵ Altogether, data from 298 consumption distributions were used to construct state-level poverty measures.⁶

11. The poverty lines used are based on those initially proposed by the Planning Commission in 1979. (GOI, 1979). These lines were defined at the per capita monthly expenditure levels of Rs. 49 for rural areas and Rs. 57 for urban areas (rounded to the nearest rupee) at October 1973-June 1974 all-India

³ In past work on these data (Datt and Ravallion, 1998a,b) it was found that farm output per hectare is a better predictor of poverty than output per person; on decomposing log output per person into output per hectare and hectares per person, the latter is insignificant. Output per hectare is probably the better measure of farm productivity (for further discussion see Datt and Ravallion, 1998b).

⁴ The paper initially estimated the model allowing ε_{it} to be an AR1 error term, allowing for the uneven spacing of the surveys when estimating the autoregression coefficient (following the method in Datt and Ravallion, 1998a). However, the autoregression coefficient was not significantly different from zero so we set it to zero to simplify the estimation method.

⁵ Punjab and Haryana had to be treated as a composite state because Haryana emerged as a separate state only in 1964. For NSS rounds since then, the poverty measures for the two states have been aggregated using population weights derived from the decennial censuses.

⁶ There is considerable variation in the sample sizes. For all states, the samples range from 6330 households for the 16th round (July 1959-June 1960) to 157,928 households for the 32nd round (July 1977-June 1978), with a median sample size of 25,761 households for the 43rd round (July 1986-June 1987). The smallest sample size for any state and sector is 140 households for rural Gujarat for the 16th round. Assuming a simple random sample for the rural sector within the state, this implies a maximum standard error, for a headcount index of 50%, of 4.2 percentage points.

prices. A substantial effort was invested into the construction of a consistent set of price indices across states and survey periods, using monthly data on consumer price indices from the Labour Bureau (disaggregated to the center level for the urban index) over the whole 35-year period. The primary deflators were the Consumer Price Index for Industrial Workers (CPIIW) for the urban sector and the *adjusted* all-India Consumer Price Index for Agricultural Labourers (CPIAL) for the rural sector. The adjustment carried out to the CPIAL was for the price of firewood that has been held constant in the official CPIAL series since 1960-61. The nominal state-level distributions were further normalized for inter-state cost of living differentials estimated separately for urban and rural areas, anchored to the consumption pattern of households in the neighborhood of the poverty line.⁷ For further details on the construction of the price indices, see Özler, Datt and Ravallion (1996), Datt (1997), and Datt and Ravallion (1998a).⁸

12. The poverty measures are estimated from published grouped distributions of per capita expenditure using parameterized Lorenz curves; for details on the methodology see Datt and Ravallion (1992).

13. The survey data was collected with data on farm yields, non-farm output, government spending, and inflation from a number of official sources.⁹

14. **Results.** Two sets of estimates are presented: for urban and rural sectors combined, and for rural headcount indices separately (Table 1). The two sets of results are very similar, reflecting in part the large share of rural poverty in total state-level poverty. The model's explanatory power is clearly good, with over 90% of the variance in poverty incidence (across states and over time) accounted for.

15. Higher farm yields and higher development spending reduce the incidence of poverty, and the coefficients are highly significant. Higher non-farm output per person lowers poverty in all states. Inflation is poverty increasing, confirming the earlier results (Datt and Ravallion, 1997, 1998a,b). In addition, significant positive time trends were found for most (10 of the 15) states. These could arise from population pressure on agricultural land availability at given yield per acre or they could reflect an adverse distributional effect of population growth on poverty, as argued by van de Walle (1985). However, it might also reflect rising under-reporting of consumption in the NSS, as is thought to be the main source of the (arguably growing) divergence between the NSS-based consumption estimates and those from the National Accounts Statistics (NAS).¹⁰ Ravallion and Datt (2001) test this further, and show that the trends disappear if one allows for population growth effects. They also find that controlling for total population results in a switch in the sign of the trends from positive to negative in most states.

⁷ However, since a single price index is used for a given state and sector, we do not allow for differences between expenditure groups (as would arise from non-homothetic preferences with changes in relative prices).

⁸ The state-specific poverty lines implied by our price indices differ from the current poverty lines used by the Planning Commission for the 50th and the 55th rounds, despite their common starting point in the original 1979 Planning Commission poverty lines of Rs. 49 and 57 per capita per month at 1973-74 prices for rural and urban areas respectively. This is because the Planning Commission uses a different set of spatial and temporal deflators to update the 1973-74 poverty lines. Note that the Planning Commission poverty lines are also utilized in Deaton (2001).

⁹ The data on farm yields and non-farm output utilize Central Statistical Organization's series on State Domestic Product (SDP). The SDP numbers since 1993/94 use the new base for India's national accounts. These were spliced with the data for the earlier series, with base 1980/81.

¹⁰ The positive trends however are not just a 1990s phenomenon, as has sometimes been claimed for the NAS-NSS growth divergence in the context of the post-reforms debate. On the contrary, the conditional trends are the strongest for the 1970s and weaker for the 1980s and 1990s.

However, these variables are so highly correlated that it is clearly hard to disentangle their effects, and standard errors on the trend coefficients rise considerably.

Table 1: Regressions for state headcount indices allowing for inter-state differences in elasticities to non-farm output and time trends

Independent variable	Urban and rural		Rural	
	Dep. Var. : ln (headcount index)		Dep. Var. : ln (rural headcount index)	
	Parameter estimate	t-ratio	Parameter estimate	t-ratio
Real agricultural output per hectare of net sown area: current + lagged (YLD)	-0.097	-3.50	-0.097	-3.07
Real per capita state development expenditure: lagged (GOV)	-0.128	-2.16	-0.177	-2.63
Inflation rate (INF)	0.392	4.71	0.458	4.83
Real non-agricultural output per person: current + lagged (NFP)				
Andhra Pradesh	-0.141	-1.31	-0.126	-1.03
Assam	-0.361	-2.30	-0.339	-1.90
Bihar	-0.130	-2.02	-0.115	-1.58
Gujarat	-0.289	-2.36	-0.234	-1.68
Jammu & Kashmir	-0.369	-3.29	-0.392	-3.07
Karnataka	-0.332	-2.73	-0.347	-2.51
Kerala	-0.665	-4.02	-0.664	-3.53
Madhya Pradesh	-0.320	-3.83	-0.330	-3.46
Maharashtra	-0.251	-2.34	-0.310	-2.54
Orissa	-0.290	-4.63	-0.295	-4.13
Punjab and Haryana	-0.426	-2.09	-0.608	-2.62
Rajasthan	-0.270	-3.24	-0.256	-2.70
Tamil Nadu	-0.272	-2.03	-0.265	-1.74
Uttar Pradesh	-0.337	-4.14	-0.364	-3.93
West Bengal	-0.511	-5.56	-0.530	-5.07
Time trend x 10 ⁻²				
Andhra Pradesh	0.223	0.25	0.327	0.32
Assam	3.088	2.21	3.299	2.07
Bihar	1.530	3.72	1.857	3.96
Gujarat	1.575	1.75	1.435	1.40
Jammu & Kashmir	3.302	3.21	4.309	3.68
Karnataka	2.223	2.42	2.817	2.69
Kerala	2.500	2.16	2.703	2.05
Madhya Pradesh	2.611	4.48	3.101	4.68
Maharashtra	2.006	2.44	2.672	2.86
Orissa	1.266	2.38	1.428	2.35
Punjab and Haryana	2.339	1.24	4.635	2.15
Rajasthan	1.164	2.23	1.519	2.55
Tamil Nadu	1.545	1.46	1.813	1.51
Uttar Pradesh	2.172	3.80	2.652	4.08
West Bengal	0.979	1.94	1.038	1.81
Root mean square error		.0937		.1067
R ²		0.923		0.905
Test for common non-ag. growth elasticities across states: F(14,238) with p-value in ()		1.59 (0.08)		1.56 (0.09)
Test for common time trends across states: F(14,238) with p-value in ()		1.12 (0.34)		1.48 (0.12)

Note: All variables are measured in natural logarithms. A positive (negative) sign indicates that the variable contributes to an increase (decrease) in the headcount index. The estimated model also included state-specific intercept effects, not reported in the Table. The number of observations used in the estimation is 272. Source: Datt and Ravallion (2001).

ANNEX TABLES

Annex Table 1.1: Poverty Lines, Official Methodology (Rs. monthly per capita)

States	Rural				Urban			
	1983-84	1987-88	1993-94	1999-00	1983-84	1987-88	1993-94	1999-00
1. Andhra Pradesh	72.66	91.94	163.02	262.94	106.43	151.88	278.14	457.40
2. Arunachal Pradesh	*	*	*	*	*	*	*	*
3. Assam	98.32	127.44	232.05	365.43	97.51	126.60	212.42	343.99
4. Bihar	97.48	120.36	212.16	333.07	111.80	150.25	238.49	379.78
5. Goa	88.24	115.61	194.94		126.47	189.17	328.56	
6. Gujarat	83.29	115.00	202.11	318.94	123.22	173.18	297.22	474.41
7. Haryana	88.57	122.90	233.79	362.81	103.48	143.22	258.23	420.20
8. Himachal Pradesh	88.57	122.90	233.79	367.45	102.26	144.10	253.61	420.20
9. Jammu & Kashmir	91.75	124.33	*		99.62	148.38	*	
10. Karnataka	83.31	104.46	186.63	309.59	120.19	171.18	302.89	511.44
11. Kerala	99.35	130.61	223.84	374.79	122.64	163.29	280.54	477.06
12. Madhya Pradesh	83.59	107.00	193.10	311.34	122.82	178.35	317.16	481.65
13. Maharashtra	88.24	115.61	194.94	318.63	126.47	189.17	328.56	539.71
14. Manipur	*	*	*	*	*	*	*	*
15. Meghalaya	*	*	*	*	*	*	*	*
16. Mizoram	*	*	*	*	*	*	*	*
17. Nagaland	*	*	*	*	*	*	*	*
18. Orissa	106.28	121.42	194.03	323.92	124.81	165.40	298.22	473.12
19. Punjab	88.57	122.90	233.79	362.68	101.03	144.98	253.61	388.15
20. Rajasthan	80.24	117.52	215.89	344.03	113.55	165.38	280.85	465.92
21. Sikkim	*	*	*	*	*	*	*	*
22. Tamil Nadu	96.15	118.23	196.53	307.64	120.30	165.32	296.63	475.60
23. Tripura	*	*	*	*	*	*	*	*
24. Uttar Pradesh	83.85	114.57	213.01	336.88	110.23	154.15	258.65	416.29
25. West Bengal	105.55	129.21	220.74	350.17	105.91	149.96	247.53	409.22
26. Andaman & Nicobar	*	*	*	*	*	*	*	*
27. Chandigarh	*	*	*	*	*	*	*	*
28. Dadra & Nagar Haveli	88.24	115.61	194.94	*	126.47	189.17	328.56	*
29. Daman & Diu	*	*	*	*	*	*	*	*
30. Delhi	88.57	122.90	233.79	362.68	123.29	176.91	309.48	505.45
31. Lakshadweep	*	*	*	*	*	*	*	*
32. Pondicherry	*	*	*	*	*	*	*	*
All India #	89.50	115.20	205.84	327.56	115.65	162.16	281.35	454.11

* In the Expert Group, Poverty ratios for these states have not been calculated separately, but has been adopted from those of other states.

The details are as follows:

- 1 Poverty Ratio of Assam is used for Sikkim, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland and Tripura.
 - 2 Poverty Ratio of Tamil Nadu is used for Pondicherry and A & N Island.
 - 3 Poverty Ratio of Kerala is used for Lakshadweep.
 - 4 Poverty Ratio of Goa is used for Daman & Diu.
 - 5 Urban Poverty Ratio of Punjab used for both rural and urban poverty of Chandigarh.
 - 6 In 1993-94, poverty Ratio of Himachal Pradesh is used for Jammu & Kashmir.
 - 7 Since poverty ratio is estimated from the consumption expenditure distribution and the poverty line, it is preferable that the poverty lines of these states may be equated to that of the state whose poverty ratio is adopted.
- # The poverty line (implicit) at all-India level is worked out from the expenditure class-wise distribution of persons and the poverty ratio at all-India level. The poverty ratio at all-India level is obtained as the weighted average of the state-wise poverty ratio.

Source: 1983-84, 1987-88, 1993-94 from GOI: Press Information Bureau, "Estimate of Poverty", March 11, 1997, New Delhi. 1999-00 lines from Planning Commission Press Release, February 22, 2001.

Annex Table 5.1: Per Capita Monthly Expenditures Regression Results – 1993-94 NSS

Annex Table 2.2: Regional Poverty Profile

Region	1983 (NSS 38th Round)					1993-94 (NSS 50th Round)				
	Mean* con- sump- tion	Gini coeff- icient	Poverty Measures			Mean* con- sump- tion	Gini coeff- icient	Poverty Measures		
			Incidence H	Depth P1	Severity P2			Incidence H	Depth P1	Severity P2
Himalayan	179	0.331	26.8	0.059	0.028	345	0.280	22.5	0.042	0.010
Western	177	0.398	38.7	0.111	0.051	344	0.304	29.8	0.065	0.021
Central	145	0.340	53.3	0.167	0.076	276	0.305	46.7	0.129	0.047
Eastern	131	0.379	54.3	0.150	0.063	263	0.274	47.5	0.116	0.039
Southern	106	0.281	68.5	0.222	0.091	224	0.292	68.9	0.204	0.081
<i>Uttar Pradesh</i>	<i>156</i>	<i>0.383</i>	<i>48.1</i>	<i>0.139</i>	<i>0.061</i>	<i>296</i>	<i>0.302</i>	<i>40.9</i>	<i>0.101</i>	<i>0.035</i>

Mean* consumption: In current rupees (i.e. survey year) per capita per month

Poverty Measures estimated using the poverty lines recommended by the Expert Group. The poverty measures presented are the first three of the FGT class of poverty measures corresponding to P=0, 1, and 2.

Annex Table 2.1: Mean Values of Variables of Interest:

Variable	Rural Areas					
	All India			Uttar Pradesh		
	Majority	SC/ST	Overall	Majority	SC/ST	Overall
Log per capita monthly consumption	8.21	7.95	8.12	8.13	7.86	8.05
Household size	5.4	4.8	5.2	6.1	5.0	5.8
Proportion under 5	10.4%	11.9%	10.9%	12%	14%	13%
Proportion 5-9	10.4%	11.2%	10.6%	12%	11%	12%
Proportion 10-14	10.2%	9.5%	10.0%	11%	10%	10%
Proportion 15-59	59.8%	59.6%	59.7%	55%	55%	55%
Proportion 60+	9.2%	7.8%	8.7%	10%	10%	10%
Per capita land owned (acres)	0.91	0.40	0.73	0.70	0.26	0.57
Population density (pop. / acre of land)	8.0	10.9	9.0	1.91	0.41	1.46
% of adults with no education	48.8%	69.2%	56.1%	57.6%	79.8%	64.2%
% adults with education below primary level	10.6%	8.4%	9.8%	7.6%	4.7%	6.7%
% adults with primary education	11.9%	8.4%	10.7%	9.3%	5.4%	8.1%
% adults with middle school education	13.4%	7.7%	11.4%	12.0%	5.8%	10.1%
% adults with matriculation	8.5%	3.9%	6.8%	6.2%	2.3%	5.1%
% adults with higher secondary or more	6.7%	2.4%	5.2%	7.3%	2.1%	5.8%
Variable	Urban Areas					
	All India			Uttar Pradesh		
	Majority	SC/ST	Overall	Majority	SC/ST	Overall
Log per capita monthly consumption	8.62	8.36	8.55	8.51	8.20	8.43
Household size	4.5	4.5	4.5	5.1	5.0	5.1
Proportion under 5	8.4%	10.4%	9.0%	10.4%	13.2%	11.2%
Proportion 5-9	8.9%	10.1%	9.2%	10.6%	11.6%	10.8%
Proportion 10-14	9.2%	9.5%	9.3%	10.0%	9.5%	9.8%
Proportion 15-59	66.7%	64.9%	66.2%	61.3%	59.0%	60.7%
Proportion 60+	6.8%	5.2%	6.3%	7.7%	6.7%	7.4%
% of adults with no education	24.5%	42.9%	29.7%	34.2%	56.9%	40.2%
% adults with primary education or below	20.9%	21.0%	21.0%	16.4%	16.3%	16.4%
% adults with middle school or matriculation	31.7%	25.1%	29.8%	24.0%	18.1%	22.4%
% adults with higher secondary or more	22.9%	11.0%	19.5%	25.4%	8.6%	20.9%

Annex Table 5.1: Per Capita Monthly Expenditures Regression Results – 1993-94 NSS

Annex Table 2.2: Village-Level Fixed Effects Model: Rural and Urban Areas

Dependent Variable: log per capita consumption	Rural Areas							
	All-India				Uttar Pradesh			
	Majority		Scheduled Caste		Majority		Scheduled Caste	
	Co-efficient	p-value	Co-efficient	p-value	Co-efficient	p-value	Co-efficient	p-value
Household size	-0.026	0.00	-0.035	0.00	-0.014	0.00	-0.029	0.00
Proportion under 5 years	-0.531	0.00	-0.570	0.00	-0.583	0.00	-0.553	0.00
Proportion 5-9 years	-0.378	0.00	-0.413	0.00	-0.446	0.00	-0.375	0.00
Proportion 10-14 years	-0.278	0.00	-0.293	0.00	-0.395	0.00	-0.268	0.00
Proportion 60+ years	-0.031	0.02	-0.073	0.00	-0.042	0.20	-0.064	0.16
Per capita land owned	0.069	0.00	0.067	0.00	0.186	0.00	0.164	0.00
Per capita land owned squared	-0.001	0.00	-0.001	0.00	-0.008	0.00	-0.009	0.18
Population density (pop. / acre of land)	0.000	0.04	0.000	0.99	0.005	0.09	0.030	0.02
Proportion of adults with:								
Education below primary level	0.162	0.00	0.117	0.00	0.215	0.00	0.073	0.34
Primary education	0.255	0.00	0.199	0.00	0.230	0.00	0.215	0.00
Middle school education	0.353	0.00	0.268	0.00	0.298	0.00	0.284	0.00
Matriculation	0.561	0.00	0.501	0.00	0.430	0.00	0.413	0.00
Higher secondary or more	0.819	0.00	0.781	0.00	0.626	0.00	0.478	0.00
Constant	8.213	0.00	8.155	0.00	8.111	0.00	7.987	0.00
Number of observations	29,963		16,569		4,375		2,014	
F	982.5		380.4		167.0		32.5	
Prob>F	0.00		0.00		0.00		0.00	
Adj R-Square	0.336		0.294		0.349		0.242	
Fixed Effects F-Test	4.58		3.99		4.36		2.81	
(Prob >F)	0.00		0.00		0.00		0.00	
Chow Test	1.523				1.326			
(equality of parameters)	[F(4685,37162) =]				[F(688,5373) =]			

Urban Areas

Dependent Variable: log per capita consumption	All-India				Uttar Pradesh			
	Majority		Scheduled Caste		Majority		Scheduled Caste	
	Co-efficient	p-value	Co-efficient	p-value	Co-efficient	p-value	Co-efficient	p-value
Household size	-0.074	0.00	-0.069	0.00	-0.056	0.00	-0.048	0.00
Proportion under 5 years	-0.551	0.00	-0.535	0.00	-0.689	0.00	-0.936	0.00
Proportion 5-9 years	-0.352	0.00	-0.311	0.00	-0.481	0.00	-0.408	0.00
Proportion 10-14 years	-0.310	0.00	-0.280	0.00	-0.258	0.00	-0.486	0.00
Proportion 60+ years	0.023	0.28	-0.179	0.00	-0.024	0.70	-0.430	0.00
Proportion of adults with:								
Primary education or below	0.177	0.00	0.151	0.00	0.226	0.00	0.125	0.09
Middle school or matriculation	0.420	0.00	0.327	0.00	0.403	0.00	0.417	0.00
Higher secondary or more	0.864	0.00	0.697	0.00	0.804	0.00	0.595	0.00
Constant	8.691	0.00	8.600	0.00	8.609	0.00	8.540	0.00
<i>Number of observations</i>	16,759		6,638		1,559		558	
F	1,109.2		295.8		113.6		28.7	
Prob>F	0.00		0.00		0.00		0.00	
Adj R-Square	0.382		0.357		0.405		0.402	
Fixed Effects F-Test	3.82		2.96		3.86		2.68	
(Prob >F)	0.00		0.00		0.00		0.00	
Chow Test		1.315				1.342		
(equality of parameters)		[F(2376,18645) =]				[F(221,1675) =]		

Source: From Lanjouw and Zaidi (forthcoming) based on the 1993-94 NSS Consumer Expenditure Survey.

Annex Table 5.1: Per Capita Monthly Expenditures: Regression Results - 1993-94 NSS

RURAL AREAS						URBAN AREAS					
Variable	Mean / % cases	Coefficient	Std. Error	T-statistic	P>|t|	Variable	Mean / % cases	Coefficient	Std. Error	T-statistic	P>|t|
Log per capita monthly expenditures	5.46	—	—	—	—	Log per capita monthly expenditures	5.84	—	—	—	—
Constant term	—	5.436	0.0287	189.2	0.000	Constant term	—	5.686	0.0712	79.82	0.000
Age of household head	45.8	0.0016	0.0004	3.75	0.000	Age of household head	44.3	0.0026	0.0010	2.55	0.011
Gender: Male	95%	..... omitted				Gender: Male	95%	..... omitted			
Female	5%	0.0540	0.0269	2.00	0.046	Female	5%	0.0628	0.0706	0.89	0.374
Composition: Adult males	2.0	0.0088	0.0063	1.40	0.161	Composition: Adult males	2.0	0.0055	0.0136	0.40	0.688
Adult females	1.9	-0.0093	0.0066	-1.41	0.158	Adult females	1.9	-0.0357	0.0107	-3.35	0.001
No. of boys	1.6	-0.0659	0.0046	-14.32	0.000	No. of boys	1.4	-0.0602	0.0113	-5.31	0.000
No. of girls	1.4	-0.0559	0.0044	-12.59	0.000	No. of girls	1.3	-0.0791	0.0110	-7.17	0.000
Region: Himalayan	4%	0.2676	0.0310	8.62	0.000	Region: Himalayan	4%	0.0399	0.0662	0.60	0.546
Western	34%	0.2217	0.0177	12.53	0.000	Western	47%	0.0736	0.0464	1.59	0.114
Central	17%	-0.0659	0.0207	-3.18	0.002	Central	19%	-0.0613	0.0567	-1.08	0.281
Eastern	40%	..... omitted				Eastern	23%	..... omitted			
Southern	5%	-0.3084	0.0454	-6.79	0.000	Southern	6%	-0.3163	0.0658	-4.80	0.000
Caste: SC/ST	25%	-0.0857	0.0155	-5.53	0.000	Caste: SC/ST	14%	-0.1053	0.0361	-2.92	0.004
Non-SC/ST	75%	..... omitted				Non-SC/ST	86%	..... omitted			
Education: Not literate	58%	..... omitted				Education: Not literate	33%	..... omitted			
< Primary	12%	0.0809	0.0177	4.58	0.000	< Primary	11%	0.1335	0.0410	3.26	0.001
Comp. Primary	10%	0.1307	0.0208	6.29	0.000	Comp. Primary	10%	0.1816	0.0362	5.02	0.000
Comp. Middle	10%	0.1501	0.0201	7.45	0.000	Comp. Middle	11%	0.3518	0.0505	6.97	0.000
C. Secondary	5%	0.2016	0.0260	7.77	0.000	C. Secondary	11%	0.3878	0.0522	7.44	0.000
Comp. Higher	6%	0.3156	0.0279	11.33	0.000	Comp. Higher	25%	0.6395	0.0388	16.49	0.000
Occupation: S.E non-agri.	13%	0.0270	0.0189	-1.43	0.152	Occupation: Self-employed	53%	..... omitted			
Agri. labor	18%	-0.1366	0.0166	-8.23	0.000	Reg wage/salry	31%	0.0753	0.0283	2.66	0.008
Other labor	5%	-0.0207	0.0239	-0.87	0.387	Casual labor	11%	-0.1708	0.0586	-2.91	0.004
S.E Agriculture	58%	..... omitted				Other	5%	0.1369	0.0649	2.11	0.036
Other	6%	0.1475	0.0286	5.15	0.000						
Land-ownership	1.03	0.0627	0.0070	9.00	0.000	Land-ownership	0.23	0.0096	0.0115	0.84	0.404
Number of observations = 8968		Number of strata = 92				Number of observations = 4437		Number of strata = 9			
Number of PSUs = 902		Population size = 1.065e+10				Number of PSUs = 448		Population size = 2.561e+09			
F(21, 790) = 83.76		Probability > F = 0.0000				F(20, 420) = 37.06		Probability > F = 0.0000			
R-squared = 0.2761						R-squared = 0.4446					

Annex Table 5.2: Criteria for Allocation of Resources for the Three Main Poverty Alleviation Programs

Program	Union to State	State to Districts	Districts to		Selection of Beneficiaries
			Blocks/Panchayat Samitis	Village Panchayats	
Jawahar Gram Samridhi Yojana (JGSY)	Incidence of rural poverty based on poverty estimates of the Planning Commission	50% on proportion of rural SC/ST pop in a district to total SC/ST pop in the state 50% on the inverse of per capita production of agricultural workers		60% on the basis of SC/ST population in Panchayat 40% on the basis of total population (including SC/ST population) in Panchayat	22.5% reserved for SC/ST, 3% for disabled Remainder is for community infrastructure
Employment Assurance Scheme (EAS)	Incidence of rural Poverty based on poverty estimates of the Planning Commission	50% on proportion of rural SC/ST pop in a district to total SC/ST pop in the state 50% on the inverse of per capita production of agricultural workers	30% retained at district level 70% allocated on the basis of rural pop of the blocks Funds used for creation of durable community, social and economic assets		
Swarnjayanti Gram Swarozgar Yojana (SGSY)	Incidence of poverty based on poverty estimates of the Planning Commission	State specifies the amounts for each districts – based on the BPL list and/or other criteria (to be confirmed)	...to be added...		Identification of beneficiaries on the basis of BPL list (to be confirmed)

Note: For each of the three programs the funds move directly from the Union Government to the districts. The criteria applied are uniform across the states except a few modifications in the case of North-Eastern states.

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