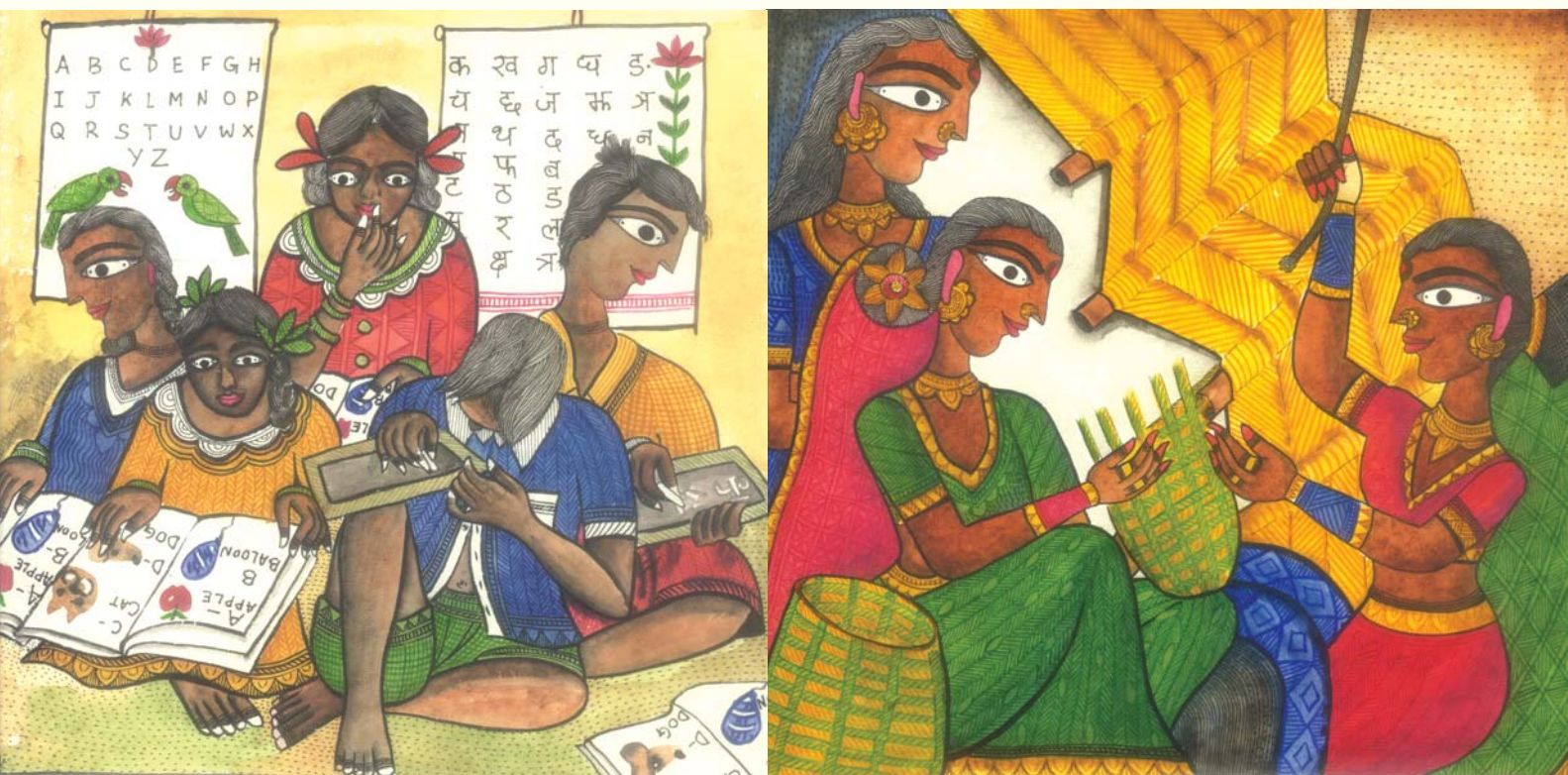


Bihar

Towards a Development Strategy



Bihar

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A World Bank Report

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CURRENCY AND EQUIVALENT

Currency Unit = Indian Rupee/US\$

\$1 = Rs.45.31

FISCAL YEAR

April 1 - March 31

ACRONYMS AND ABBREVIATIONS

AP	Andhra Pradesh	NSSO	National Sample Survey Organization
ANC	Antenatal Care	NABARD	National Bank for Agricultural and Rural Development
APDRP	Accelerated Power Development Reform Program	NFHS	National Family Health Survey
ARM	Additional Revenue Measure	O&M	Operations and Maintenance
BDO	Block Development Officer	PC	Planning Commission
BEP	Bihar Education Project	PE	Public Enterprise
BSEB	Bihar State Electricity Board	PGC	Power Grid Corporation
CHC	Community Health Center	PHC	Primary Health Center
CII	Confederation of Indian Industry	PIL	Public Interest Litigation
CSS	Centrally Sponsored Scheme	PMGSY	Pradhan Mantri Gram Sadak Yojana
DDC	District Development Committee	PPI	Pulse Polio Immunization
DDO	Disbursement and Drawing Officer	PRI	Panchayati Raj Institution
DPEP	District Primary Education Program	PSC	Public Service Commission
EAP	External Assistance Project	PSU	Public Sector Unit
GDP	Gross Domestic Product	PTR	Pupil Teacher Ratio
GoB	Government of Bihar	PWD	Public Works Department
GoI	Government of India	RBI	Reserve Bank of India
GSDP	Gross State Domestic Product	RKS	Rogi Kalyan Samiti
HSC	Health Sub-Center	SC/ST	Scheduled Caste/Scheduled Tribe
IC	Investment Climate	SEMIS	State Education Management Information System
IEMs	Industrial Entrepreneur Memoranda	SGSY	Swarnjayanti Gram Swarozgar Yojana
JRS	Jan Rakshak Sevak	SME	Small and Medium Enterprise
MDGs	Millennium Development Goals	SSC	Staff Selection Commission
MMR	Maternal Mortality Rate	SIS	State Implementation Society
MoF	Ministry of Finance	T&D	Transmission & Distribution
MoU	Memorandum of Understanding	UP	Uttar Pradesh
MTEF	Medium-Term Expenditure Framework	UNICEF	United Nations Children's Fund
MS	Mahila Samakhya	VEC	Village Education Committee
NGO	Non-Government Organization	WB	World Bank
NSS	National Sample Survey	WDR	World Development Report

EXECUTIVE SUMMARY

This report aims to initiate a dialogue with policy makers in Bihar on the state's complex and challenging development issues. For effective contribution to the dialogue, the assessment has to candidly recognize Bihar's constraints, but clearly support Bihar's own development goals and objectives. The ideas and recommendations in the report are preliminary in nature, hence the title, *Bihar: Towards a Development Strategy*.

The challenge of development in Bihar is enormous due to persistent poverty, complex social stratification, unsatisfactory infrastructure, and weak governance; problems that are well known, but not well understood. The people of Bihar — civil society, businessmen, government officials, farmers, and politicians — also struggle against an image problem that is deeply damaging to Bihar's growth prospects. An effort is needed to change this perception, and to search for real solutions and strategies to meet Bihar's development challenge.

The main message of this report is one of hope. There are many success stories that are not well known outside the state which demonstrate Bihar's strong potential, and could in fact provide lessons for other regions. A boost to economic growth, improved social indicators, and poverty reduction will require a multi-dimensional development strategy that builds on Bihar's successes and draws on the underlying resilience and strength of Bihar's people.

Bihar's Development Challenges

Bihar's development challenges must be considered in the light of India's overall development agenda. Located in the most densely populated part of the "Hindi heartland", Bihar is India's third most populated state with a total population of 83 million, and accounts for one-seventh of India's population below the poverty line. The state's per-

formance lags seriously behind national trends, and is a significant contributing factor to the growing income gap across states. If Bihar does not enter the mainstream of national economic growth and prosperity, its performance disparities will continue to widen significantly.

Poverty in Bihar

Nearly 40% of Bihar's population lies below the poverty line, the highest in India. Its poverty gap, which measures the depth of poverty, is also far above the national average. Modest progress was made during the 1990s (1993-94 to 1999-00), reducing poverty by nearly 7 percentage points, but the rate of poverty reduction was well below the national average. This has been accompanied by much slower progress than the rest of India in meeting the Millennium Development Goals (MDGs). By current trends Bihar is projected to fall well behind on most of the MDG targets for 2015, undermining national performance. Although progress has been better in some areas, such as infant mortality and household access to improved water supply, it is from a low base, and a substantial performance gap in relation to the rest of India persists. In other areas performance has been far worse: net primary enrollment actually fell over the 1990s, and access to improved sanitation has barely changed.

The profile of poverty in Bihar is complex, but is key to understanding how people fall into poverty and how they are likely to be differentially impacted by public policy interventions. Rural poverty incidence (41.1%) is substantially higher than the urban level (24.7%); with a low urbanization rate, poverty is predominantly rural. Rural poverty is associated with limited access to land and livestock, poor education and health care, as also well-paid occupations and social status. The rural poor tend to depend on agricultural wages or casual non-farm

jobs for income, a large percentage being landless or near-landless, owning lower quality livestock, and likely to be poorly educated (80% of the bottom quintile household heads have no education). Social or caste characteristics are also strongly associated with a lack of opportunities: scheduled tribes are thrice as likely to be poor as compared with upper castes, and significantly so in relation to Muslims and backward castes.

The challenge of improving growth performance

Bihar's growth performance, which was slightly below the national trend in the 1980s, became far lower subsequently. The state experienced zero growth in the first half of the 1990s, and since 1994-95, when data for divided Bihar became available, annual growth has averaged 3.8%, or about 1% per annum in per capita terms. As a result, income growth and consumption levels in Bihar have lagged seriously, thereby widening the gap between Bihar and the rest of India. Underlying this result has been Bihar's exceptionally weak performance in agriculture and modest performance in services. A somewhat better performance has been experienced in the industrial sector, but this is from a very small industrial base.

Agriculture is the bedrock of Bihar's economy, employing 80% of the workforce and generating nearly 40% of gross domestic product (GDP). Improving the performance of agriculture and related rural non-farm activity is therefore important for maintaining livelihoods and reducing poverty levels. However, agriculture has performed particularly poorly, declining in the early 1990s by 2% per annum and growing by less than 1% per annum since 1994-95 (hence falling in per capita terms). Agricultural output has also been highly volatile due to shocks from both drought and periodic monsoon flooding. Crop productivity trends have been below the Indian average for most cereal crops, and far below their potential yield, given Bihar's fertile land and water resources. The causes for the large yield gap (which is the difference between current and optimal production) are numerous: low investment rates, lack of water management with annual flooding of the Gangetic plain districts, and weak transport and marketing infrastructure. Severe fragmentation of land holdings also impedes productivity, and subsistence farming continues to

predominate. Poor agricultural growth has clearly been a major factor hindering poverty reduction, and has serious implications for the consumption security of poor households.

The declining level of investment in Bihar has led to low growth performance. Private investment in the state has been exceptionally low as compared with other states, and Bihar's share of private projects being implemented in the 1990s was the lowest among the major states. Public investment levels have also seen a downward trend, partly due to the state's fiscal constraints.

Fiscal difficulties significantly challenge the public sector and the government's contribution to growth. Bihar is the beneficiary of large tax transfers from the center (among the highest per capita transfers in India), but the state still faces serious fiscal constraints, more severe than those confronting many other states. Fiscal deficits have been high, pushing up the debt level to among the highest in India. Bihar's own state revenues barely cover interest payments on the debt. The state's bifurcation in November 2000 has exacerbated the fiscal outlook, as the new state of Jharkhand received most of the revenue-yielding industrial and mineral resources while Bihar retained most of the liabilities. A consequence of fiscal stress has been a deterioration in the mix of public spending: the share of capital spending has dropped sharply from around half of total spending in the mid-1980s to one-fifth in the post-bifurcation period. Although the share of social services in total spending has been maintained, the share of economic services has been cut by over half, which has also negatively impacted growth. Bihar's fiscal crisis is also evident in deteriorating road quality, dilapidated schools, health clinics with no medicines, and very low levels of rural electrification.

Program resources allocated to Bihar from the center are also not being fully or efficiently utilized even though Bihar is more dependent on these transfers to finance public investment and development programs than most other states. Given Bihar's significant development needs, the efficient use of such funds is vital. Bihar has the country's lowest utilization rate for centrally funded programs, and it is estimated that the state forfeited one-fifth of central plan assistance during 1997-2000.

The challenge of strengthening social service delivery

Lack of education, poor health, and inadequate access to safe drinking water and sanitation are closely associated with, and perpetuated by high levels of poverty. Differences among social groups in Bihar are acute and have been persistently so over the decades. Education enrollment and literacy rates are far below the national average, and reveal large differences in education outcomes across gender, social and economic groupings. In the case of some health outcomes, for example access to safe drinking water, Bihar does slightly better than the national average. However, child mortality rates exceed that of most other states, child nutrition is among the worst in India, and only 10% of children were fully immunized in 2000.

The main reason for poor social sector outcomes is deficiencies in service delivery, particularly in services that affect the poor and where the government plays a dominant role. For example, a chronic problem in public educational services is teacher absenteeism. Administrative deficiencies compound the problems: there is a lack of monitoring, frequent use of teachers in other work capacities, inadequate resources, and slow recruitment of teachers. As a result, in recent years, the pupil-teacher ratio has risen to more than 90:1 in primary schools.

A similar situation exists in the health sector. There is a serious shortfall of health sub-centers and primary health clinics compared to existing national norms. More importantly, existing centers and clinics are beset by endemic problems relating to quality standards: poor maintenance of facilities, idle equipment (mainly due to lack of power), and chronic short supply of medicines and vaccines, particularly in the rural areas. Unlike the case of education, where there is little private presence in service delivery, there is significant reliance by households on private health providers for critical health services. In Bihar, the ratio of private spending on health care, relative to public spending is the second highest in India. More than half of the women rely on the provision of pre-natal care by private providers, compared to just one-fifth on government providers.

Public subsidies often fail to reach the poor. Both education and health subsidies are skewed in favor of the upper economic groups, and in particular towards males, especially in the case of secondary education. There are four main reasons for this in

Bihar. First, public spending does not favor the poor or the services they need, even if the government devotes an adequate share of its budget to health and education (which it does not). Second, not all the money spent reaches the front line provider due to leakages and corruption. Third, service providers must be present to ensure that services reach the poor, but Bihar's absenteeism rates are among the highest in India. Fourth, there is a lack of demand for public services in the state due to poor quality of these services, the high cost and time required to access them, and the influence of local cultural factors (e.g. undervaluation of girls' education).

Bihar has many poverty alleviation programs to improve the livelihoods of the poor and socially disadvantaged, virtually all of them supported through the central government. Their performance appears to be quite weak in general, mainly due to mis-targeting of funds and institutional difficulties in using government funds effectively. The problem of mis-targeting appears to be serious. Evidence relating to the beneficiaries of the public distribution system (PDS) — Bihar's most important social safety net program — reveals that under-coverage (qualified poor households which do not receive the food subsidies) totaled 89% in 1999-00, and leakages (non-qualifying families that receive benefits) equaled 46% in the same year. The Integrated Rural Development Program (now known as the Swarnjayanti Gram Swarozgar Yojana or SGSY), and other programs also show ineffective targeting.

The challenge of strengthening public administration and governance

Bihar's difficulties with service delivery and utilization of central program assistance show serious constraints in public administration. As elsewhere in India, the public service norms in Bihar are poorly defined, political interference exists, and the bureaucratic system is largely non-meritocratic. However, there are some additional unique factors that contribute to the governance problems facing Bihar. One of these is Bihar's highly centralized government, which impedes decision-making and project implementation. For example, high-level authorization and committee approval is required for even relatively minor decisions on purchases, tenders, land leases, and other personnel matters. This has led to serious bottlenecks that, among other things, slow the disbursement of funds and the project cycle of government programs. Civil

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service recruitment is another serious problem, with large imbalances across functional needs and levels. Important vacancies, such as positions for teachers and engineers, exist alongside serious overstaffing in the lower ranks. The lack of reform in service rules and regulations has also generated avoidable costs. Bihar's current system for recruitment, promotion and sanctions tends to be ad hoc, non-transparent and non-meritocratic. The departmental structure is fragmented, and important areas of policy convergence — poverty reduction, family planning, and agricultural development — suffer from conflicts over departmental turf. Finally, a series of high-level corruption scandals have given the state a reputation, whether justified or not, of being corrupt, and highlight a lack of accountability to citizens' grievances and redressal.

Bihar's financial and administrative difficulties have led to an enormous amount of litigation being brought against the government, mainly through writ petitions for service-related matters of employees (non-payment of salaries, land revenue irregularities, etc.) and public interest litigations (PILs). The objective of PILs is to press for government action where government normally has discretion; in some instances these have been frivolous, while in others they have accelerated important government initiatives, such as local elections in 2001. The government's inability to afford actions mandated by PILs has led to stalling tactics or their being ignored. This in turn has led to contempt of court action against the government, of which over 5,500 applications are pending, most of them dealing with non-payment of pensions. Such litigation is costly and inefficient, straining a court system that already suffers an estimated backlog of cases stretching 20 years.

Finally, the perception of serious law and order problems in Bihar poses a further governance challenge. Although official statistics suggest that Bihar's crime rates are similar to many other states, the general perception of widespread lawlessness and organized crime is quite different. Thus Bihar has the reputation of being a high-risk state, where extortion and crime is directed towards businesses and professionals. This seriously discourages businesses from locating in Bihar.

Towards a Development Strategy

Placing economic and social development objectives as central to government policy is vital for

transforming Bihar's human and economic landscape. It requires moving away from a narrow focus on political gains or special interests to making development outcomes the measure of good governance. In other words, it means shifting political and civic discourse to focus on building roads, controlling floods, and educating children. This shift in focus, which may already be under way, could prove a catalytic force in bringing about development.

A development strategy for Bihar will require a multi-dimensional approach across sectors and institutions. Improving educational and health outcomes requires working with different communities and organizations - private, public, and non-government- to leverage scarce resources. It will require developing a vision and strategy for reforming the administrative system to remove antiquated rules, strengthen capacity, and eliminate the paralysis in decision-making. And it will also require improved fiscal performance to manage the mounting debt and carefully shepherd the state's scarce resources in the right direction. This report argues for a basic development strategy that rests on two key pillars: (a) enhancing Bihar's growth performance by establishing a healthy investment climate to encourage entrepreneurship, investment, and the spread of improved technologies, particularly in the rural sector; and (b) supporting human resource development through improved quality and access to social services, particularly for the poor and socially disadvantaged communities.

Pillar I: Improving economic growth through strengthening the investment climate

The first development pillar involves strengthening Bihar's investment climate to enhance the use of Bihar's current agricultural and human resource base, attract new productive resources and create jobs. Generating productive income-earning opportunities in agriculture remains pivotal to reducing chronic poverty while the rural economy continues to dominate economic opportunity over the medium term. The primary reason for Bihar's weak investment level and growth rate is its poor investment climate. Several contributing factors are identified, including inferior infrastructure (roads, power, water, telecommunications), weak financial markets and low access to credit, shortage of skilled labor, poor law and order, and a general lack of political support for private investment. Of these,

the two most important priorities for the government's growth strategy are strengthening Bihar's weak infrastructure and improving law and order.

The key infrastructure services that require public sector delivery are water management and roads, particularly for boosting investment and output of agriculture, agro-industry, and related services (transport, storage, marketing, etc.). The public sector has an important role in basic capital investment and maintenance of large- and medium- scale water management systems for irrigation, as well as sanitation and urban water supply. Private and community management of small-scale irrigation and feeder systems has proved effective where communities have been able to organize and appropriate the benefits with low bureaucratic or political interference. Reliable and affordable power supply is also an important part of the investment climate; a reform agenda in the power sector should aim to reduce public subsidies to the ailing Bihar State Electricity Board (BSEB), and explore alternative partnerships and decentralized models of power supply, particularly for rural areas. Strengthening of rural infrastructure is also needed to reduce the sharp swings in agricultural output, and should aim to target this key sector's constraints of water control and flooding, rural power supply, and market access. Complementing this is the well-targeted public support for extension services and for agricultural research and development (R&D), appropriate to Bihar's topology and crop profile.

The second priority for strengthening the investment climate is improving basic law and order, and in doing so, reversing the perception of endemic problems in this area. The perception of Bihar's deteriorating law and order problems is clearly a risk factor which current and potential investors are very concerned about. Detailing a strategy for improving law and order goes well beyond the scope of this report. However, it is clear from investor surveys and interviews that high-level government attention to the problem is needed, even if the official view is that statistics point to problems no worse than those of many other states.

Bihar has some encouraging models of entrepreneurial success that provide lessons for what is needed to help businesses thrive. The profitable Bihar State Cooperative Milk Producers' Federation Ltd (COMFED) has been extraordinarily successful and has improved the lives of many

thousands of families. Another example is Bihar's litchi export industry, which accounts for about 70% of India's total production. Both COMFED and the litchi industry build on areas of Bihar's strength in farm-based agro-industry, but have different organizational characteristics. COMFED's success points to the critical importance of professional management that is free from political interference. Its horizontal production base and vertically integrated structure were conducive to broad membership and participation, and its business design focused on sustaining the financial interest of its members. By contrast, litchi cultivation has evolved with no direct government or organizational support. Increased international demand and entrepreneurial traders with a business plan have managed to develop a production chain, utilizing pre-harvest sales arrangements and contract farming packages including seed, fertilizer and credit. There is scope for extending both models geographically and into other products, provided there is adequate infrastructure, and freedom from harassment (law and order). Direct state investment or subsidies are not an issue.

Pillar II: Strengthening social service delivery

A critical complement to the first development pillar is investment in human resources to meet social development goals and to support medium-term economic growth. This is particularly important for the rural poor for whom access to basic health and education services is essential to empower them and enable their participation in productive income-earning opportunities, as also movement into off-farm activities. A robust social service delivery system requires attention to three core relationships: (i) between policy makers and service recipients (in rural areas these are primarily poor people) to make policies responsive to people's needs; (ii) between policy makers and service providers to ensure quality standards; and (iii) between end clients and service providers to strengthen accountability mechanisms. Together, these help to ensure that social services are actually provided, well targeted, and responsive to community needs. There is a need in Bihar for developing a coherent policy framework based on a strategic plan that reflects the needs of beneficiaries, the responsibilities of service providers and the state, and addresses key delivery constraints. It must also have the support of the political and bureaucratic establishment.

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Implementation of a sound strategic framework requires several complementary inputs. Most importantly, this calls for administrative arrangements to demarcate lines of responsibility between various levels of government, departments, and service providers, and includes a clear accountability framework and system of incentives that rewards competence. Bihar has a sizeable agenda for administrative reform, as discussed below. Financing arrangements that allocate resources to priority uses, are financially sustainable, and avoid wastage and duplication, are clearly another element of this strategy. Finally, improving service delivery will benefit from strengthening local governments, along with their capacity to plan, govern, and monitor local schools and health clinics, all of which will improve the linkages between beneficiaries and service providers. The gradual devolution of resources and responsibilities to the local government and pupil-teacher ratios (PTRs) holds the potential to fulfill this role provided it is done gradually, with adequate attention to developing local management capacity.

An important vehicle for strengthening service delivery is increasing community involvement in program design and implementation. The experience of the District Primary Education Programme (DPEP) in Bihar provides an example. Although DPEP has had mixed success in Bihar, the organization of village education committees (VECs) has helped to make teachers accountable, and provides evidence of the importance of community involvement in improving outcomes. It also points to the need for an integrated service delivery vision that brings policy makers together with service providers and the poor, helping to empower beneficiaries through community voice and action.

The state of health care in Bihar raises additional concerns. The skewed benefit incidence of health subsidies demonstrates the need to better target health sector spending. For example, the emphasis should lie on improving immunization delivery, which benefits the poor, rather than concentrating on hospital services, the benefits of which are skewed heavily towards the better-off. There are also opportunities to explore innovative delivery mechanisms relying on private-public partnerships involving private providers. The experience of Janani, an NGO operating through a large network of rural medical providers in a two-tiered franchise structure, has been remarkably successful. While adhering to com-

mercial principles, subsidized family planning services have been extended to rural and urban families, including to the poorest of the poor.

Janani's experience, and that of other NGOs in Bihar, demonstrates that innovative partnerships for the delivery of social services can be highly effective and can complement or substitute public services, particularly where these are weak. The highly successful effort in Muzaffarpur district involving the district administration, local communities, NGOs and thousands of volunteers to implement the National Literacy Mission's adult literacy program is a case in point. The Muzaffarpur effort has been recognized as an example to be emulated in the country. It demonstrates the potential for highly successful development outcomes in Bihar where communities, the government, and the incentive structure work in tandem. Building on Bihar's extensive network of women's self-help groups is another avenue for such collaboration, which could lead to leveraging public resources to secure more effective service delivery while empowering local communities.

Supporting the development pillars

To support the above mentioned two development pillars, there is also a clear need for better management of public resources to reduce waste and improve resource mobilization, and administrative and governance reforms.

Fiscal reform strategy. There are three main elements of a fiscal reform strategy:

(a) Developing a medium-term expenditure framework (MTEF) around which feasible and sequenced fiscal measures can be envisioned to address the issue of expenditure restructuring. This is a simple framework to organize the main components of fiscal reform — for example, meeting fiscal targets through rationalizing low-priority expenditures, liquidating public enterprises, restructuring high-cost debt, and balancing new investment with recurrent operations and maintenance requirements. Annual budgeting should be monitored against the goals of the fiscal framework:

(b) Strengthening public expenditure management in the areas of budget preparation, accounting and audit, procurement, and cash management. This should complement expenditure reviews to priori-

tize programs and identify areas of waste. In each of these areas there is a large and growing body of experience across Indian states for Bihar to draw on; and

(c) Addressing constraints in the use of central assistance and project implementation to improve utilization rates. Beyond this, Bihar should take the initiative for changes in the design of central government programs to meet local needs. Examples include flexible arrangements for funds released to accommodate Bihar's seasonal cycle and monitoring arrangements to quickly identify expenditure bottlenecks.

The administrative reform agenda. Tackling Bihar's large administrative reform agenda is fundamental not only to the efficient use of public resources, but also to the improvement of many dimensions of government performance. The most important is the quality and effectiveness of core public service delivery, both infrastructure services which underpin the first development pillar and social services that underpin the second pillar. Six areas are discussed in the report, including: strengthening decision-making procedures, restructuring civil service staffing, establishing meritocratic civil service practices, rationalizing government functions and staffing, and making government more accountable to citizens. The recommendations stress from the outset that ownership by the political leadership and bureaucracy is vital to success. A starting point is the reform of Bihar's antiquated procedural rules that impede the downward delegation of decision-making authority and disrupt the flow of funds. Secretaries and senior field officials must focus on policy and program implementation, which requires: (i) steps to grant greater departmental autonomy over budgets, recruitment, scheme approvals, etc; (ii) filling secretarial and technical head vacancies; (iii) transparent rules for vigilance inquiries; and (iv) better two-way communication between field and secretariat staff.

Related to improving government administration is the need to strengthen the management of the gov-

ernment's load of legal cases, which has become an extraordinary burden on senior officials' time. It is recommended that a well-defined system for managing the government caseload be instituted, a review of court management and administration be set up, aimed at prompt disposal of cases, and consideration be given to alternative dispute resolution mechanisms.

The Road Ahead

Bihar faces many daunting challenges, but despite a difficult environment there are instances of successful development efforts. These demonstrate that projects can succeed, entrepreneurship can thrive, and that strong leadership and a vision for change could yield dramatic results. Such examples can also provide lessons for other states in India and abroad. One need look no further than the COMFED dairy cooperative, Muzaffarpur's National Literacy Campaign, or the Paliganj Participatory Irrigation Management experience as examples of excellence. The challenge facing Bihar today is to build on these successes, draw lessons from them, and use them to underpin the state's future development.

While this report has attempted to analyze some of Bihar's main development constraints and formulate some basic policy recommendations, the coverage is by no means complete. The issues raised here require further discussion and debate within and outside government. As part of a broad effort to strengthen the development dialogue and impart prime importance to the development process, initiatives should be taken to combine external expertise with local knowledge, and invite public debate. The five areas where further analytical and strategic efforts need to be focused have been identified: (i) improving Bihar's investment climate; (ii) public administration and procedural reform; (iii) strengthening the design and delivery of core social services; (iv) budget management and fiscal reform; and (v) improving public law and order.

DEVELOPMENT CHALLENGES AND POVERTY IN BIHAR

Meeting the Millennium Development Goals

Poverty in Bihar — the highest among — all states in India in terms of consumption measures — is intensified by the deficiencies reflected in key human development indicators. For most dimensions of human development — education, malnutrition and maternal mortality — Bihar's perform-

ance during the 1990s falls well short of what is needed to achieve the Millennium Development Goals (MDGs) by 2015 (Table 1.1).¹

In comparison with the rest of the country, Bihar's progress in achieving the MDGs has been slow in relation to most indicators of human development (Table 1.2). For some indicators, like infant and child mortality or child malnutrition, Bihar's rate of

TABLE 1.1 SELECTED MDG INDICATORS FOR BIHAR

	1993	1999
1. Eradicate extreme poverty and hunger: Between 1990 and 2015, halve the proportion of people whose income is less than one dollar a day. Between 1990 and 2015, halve the proportion of people who suffer from hunger.		
Poverty headcount (%)*	45.9	39.0
Poverty gap*	0.10	0.08
Prevalence of child malnutrition/underweight children below 5 (%)	62.6	54.4
2. Achieve universal primary education by 2015		
Net primary enrollment ratio (%)*	54	52
3. Promote gender equality: eliminate gender disparity in primary and secondary education preferably by 2005 and to all levels of education no later than 2015.		
Ratio of female to male literacy**	0.44	0.56
4. Reduce child mortality: reduce by two-thirds, between 1990 and 2015, the under-five mortality rate		
Infant mortality rate (per 1000 live births)	89.2	72.9
Child (under age 5) mortality rate (per 1000 live births)	127.5	105.1
Immunization, measles (% of children under 12 months)	10.7	11.0
5. Improve maternal health: reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio		
Births attended by skilled health staff (%)	19	23.4
Maternal mortality rate (per 100,000 live births)***		451
6. Combat HIV/AIDS, malaria and other diseases: Have halted by 2015, and begun to reverse, the spread of HIV/AIDS. Have halted by 2015, and begun to reverse, the incidence of malaria, TB etc.		
Contraceptive prevalence rate (%)	23.1	24.5
Incidence of TB (per 100,000)	595	989
7. Halve, by 2015, the proportion of people without sustainable access to safe drinking water		
Access to improved water resources (%)	63.6	75.4
Access to improved sanitation (%) (households with toilet facility)	16.5	16.8

Note: * Numbers are for years 1993-94 and 1999-00 respectively; ** Number is for year 1997; *** Number is for year 2001.

progress in the 1990s has matched or exceeded all-India trends. However, since Bihar started from a low baseline, substantial gaps with the country averages persist even for these indicators. In the case of critical indicators, such as net primary enrollment, immunization, use of contraceptives, and access to sanitation facilities, progress has been slow or non-existent.

Figure 1.1 tracks selected MDG indicators for Bihar during the last decade, and compares these with the trajectories implied in the MDG targets for

2015. Bihar has achieved only two of the eight MDG targets — namely, reduction in child malnutrition and improvement in access to drinking water. For two other indicators — poverty headcount and child mortality rate — the current rate of progress will bring Bihar close to the 2015 targets. As regards primary enrollment, the ratio of female to male literacy (an indicator of gender equality), the proportion of births attended to by skilled personnel and access to sanitation, at current rates of progress, Bihar will lag far behind the MDG targets. Access to safe drinking water is the only indicator

FIGURE 1.1 ACHIEVEMENT OF MDG IN BIHAR

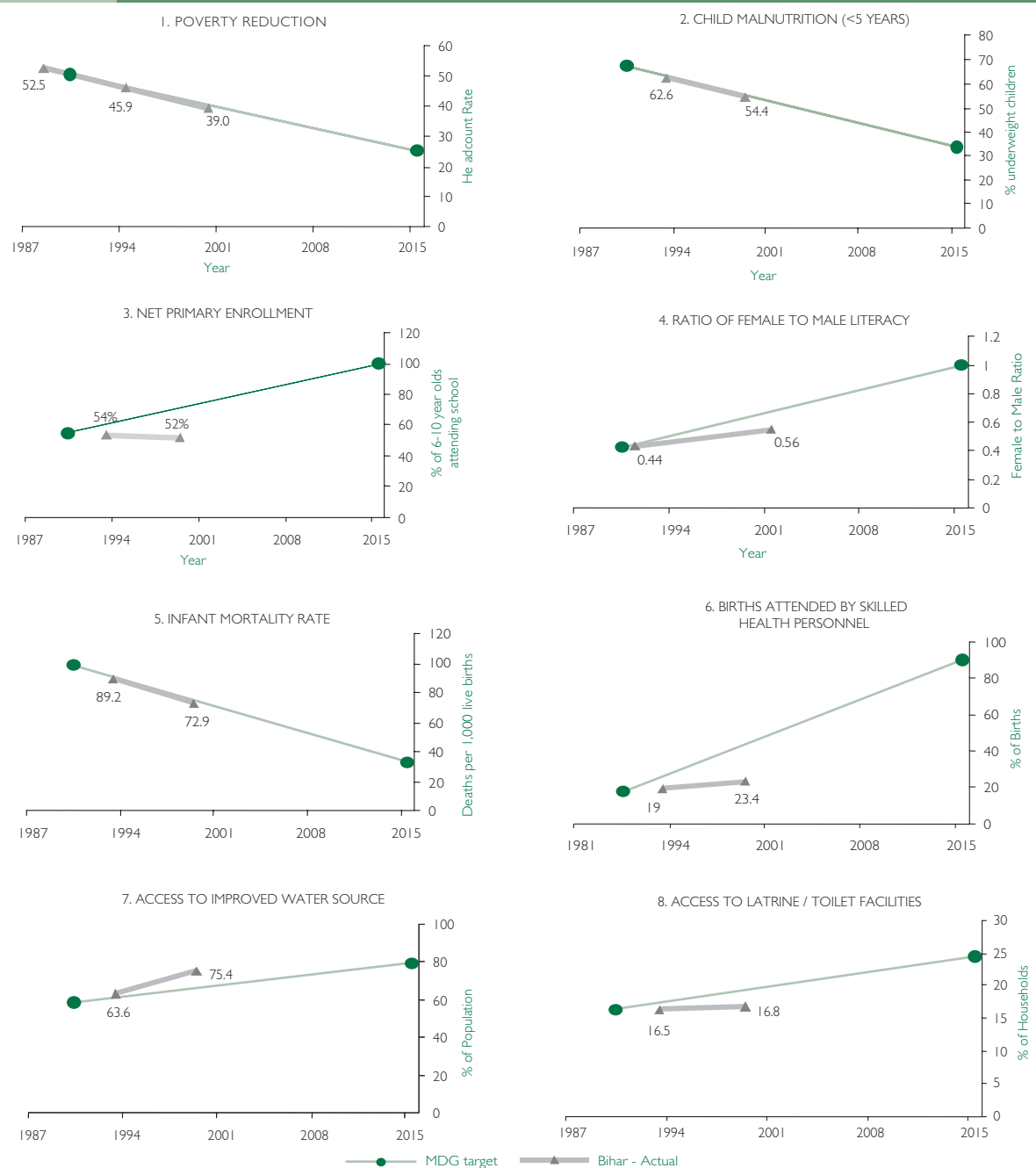


TABLE 1.2 SELECTED INDICATORS FOR BIHAR AND INDIA

	1993		1999	
	India	Bihar	India	Bihar
Poverty headcount (%)*	36.0	45.9	28.6	39.0
Poverty gap*		0.10		0.08
Prevalence of child malnutrition/underweight children below 5 (%)	53.4	62.6	47.0	54.4
Net primary enrollment ratio (%)*	71	54	77	52
Literacy rate (male)	64.1	52.5	76.0	60.3
Literacy rate (female)	39.3	22.9	54.3	33.6
Ratio of female to male literacy	0.61	0.44	0.71	0.56
Infant mortality rate (per 1000 live births)	78.5	89.2	67.6	72.9
Child (under age 5) mortality rate (per 1000 live births)	109.3	127.5	94.9	105.1
Immunization, measles (% of children under 12 months)	35.4	10.7	42.0	11.0
Births attended by skilled health staff (%)	34.2	19	42.3	23.4
Maternal mortality rate (per 100,000 live births)**			408	451
Contraceptive prevalence rate (%)	40.6	23.1	48.2	24.5
Incidence of TB (per 100,000)	467	595	544	989
Access to improved water resources (%)	68.2	63.6	77.9	75.4
Access to improved sanitation (%) (households with toilet facility)	30.3	16.5	36.0	16.8
Households with electricity as source of lighting (%)			55.8	10.3

Note: * Numbers are for years 1993-94 and 1999-00 respectively; ** Number is for year 1997.

for which current progress in Bihar is well ahead of a linear path to the MDG target.²

The weak performance of Bihar and other poor states is not a short-term problem. Figure 1.2³ shows the trend towards increasing income inequality across states over the past two decades, as measured by the Gini coefficient of interstate per capita income. Over this period, the Gini rose from 0.17 to over 0.22, indicating the unmistakable trend towards a widening income gap between states. Well recognized by national policy makers, this was a key issue of concern in the Tenth Five Year Plan document.

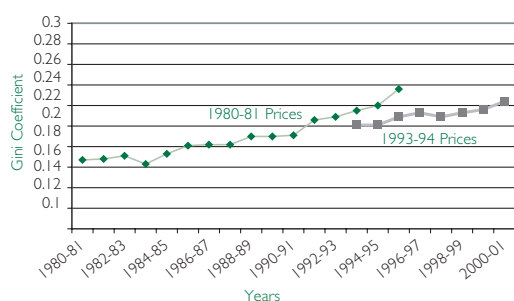
The challenge of development in rural areas is even more acute since the aggregate figures subsume large rural-urban gaps for most indicators. Since Bihar has a large rural population addressing rural

challenges is pivotal to outcomes. The state is one of India's largest and most densely populated, with one-twelfth of the country's population. Hence, the extent to which the country as a whole can achieve significantly better poverty and human outcomes is linked to the level of development in Bihar. At current rates of progress, Bihar is projected to fall behind most of the MDG targets for 2015, thus adversely impacting the national prospect of achieving these targets.

Dimensions of Poverty

Poverty levels and trends: Where are the poor?

Poverty estimates in India, based on the recent 55th round National Sample Survey Organization (NSSO)'s Consumer Expenditure Survey, have been the subject of much analysis and debate. Depending on the specific model used to adjust for comparability between the NSSO rounds of 1993-94 and 1999-2000, there are different estimates on the extent of poverty reduction between these two years. A resolution of this debate is not possible at this stage, since there is no scientific way of determining which of these models better reflect the "true" picture. They are essentially ex-post methods of adjusting consumption expenditures to achieve comparability between the two surveys, using alternate sets of assumptions that cannot be tested.

FIGURE 1.2 TRENDS IN INTER-STATE INEQUALITY IN PER CAPITA GSDP


However, irrespective of which precise method is used, there are indications that Bihar has made some progress in poverty reduction in the latter half of the 1990s. At the same time, regardless of the method used, the absolute level of poverty continues to be high in Bihar in 1999-2000, making it one of India's poorest states (Table 1.3).

According to the estimates by Deaton and Dreze (2002), the headcount index declined in Bihar by 6.9 percentage points between 1993-94 and 1999-2000; the decline was 7.5 percentage points for rural Bihar (Table 1.5).⁴ A significant rural-urban gap continues to exist. While the reduction in the headcount level is similar to the national average of 6.5 percentage points, both rural headcount at 41% and urban headcount at 24.7% are significantly higher than the national average (26.3% for rural; 12% for urban). Other estimates portray different pictures of the extent of poverty reduction in Bihar: GoI's official figures indicate that the headcount ratio in rural Bihar declined by 14% between the NSSO 50th and 55th rounds, while Kijima and Lanjouw (2003) reported a reduction of 0.3% in rural poverty during the same period.⁵

It is useful to reflect on the reasons for the ambiguities in measuring poverty reduction in Indian states between the 50th and 55th rounds of the NSSO. There are two major issues involved in computing poverty indices for 1999-2000: price adjustments and non-comparability between the two rounds. The price indices traditionally used to update the poverty line (e.g., the consumer price index for agricultural laborers) have a serious drawback in that they are based on fixed and frequently outdated commodity "weights". Deaton and Dreze (2002) and Kijima and Lanjouw (2003) update the poverty lines using price indices computed with NSSO surveys, which are known to accurately reflect the current consumption pattern. This explains why

their estimates depart from GoI estimates for both years.

Another important issue is that the 55th round is not directly comparable to the 50th round, due to changes in survey methodology with regard to recall periods for some consumption items. Both Deaton and Dreze, and Kijima and Lanjouw use the fact that a subset of components in the 55th round (e.g., intermediate consumption goods, such as fuel and all household characteristics) were collected in the same way as those in the 50th round. They predict poverty in the 55th round assuming the relationship between these comparably surveyed components and poverty is stable over time. Where the two methods differ is in their specific assumptions: Deaton and Dreze assume the relationship between poverty and expenditure on comparably surveyed consumption goods (mainly intermediate goods, such as fuel and light is stable between the 50th round and 55th round; Kijima and Lanjouw assume the relationship between poverty and household characteristics, such as education, land holding, and scheduled caste and tribe status, is stable over time.

Either set of assumptions can be criticized with regard to their appropriateness. On the one hand, the assumption in Deaton and Dreze is arguable since reporting expenditure on intermediate goods can be distorted by changes in the questionnaire, for example, food consumption.⁶ The assumption in Kijima and Lanjouw is also debatable because educational attainment and occupational choice do not adjust immediately to changes in consumption/incomes but often depend on the long-term rate of return to education and agricultural productivity.

While stagnating social indicators in rural Bihar appear to support Kijima and Lanjouw, this largely follows from the assumptions of their model: head-

TABLE 1.3 HEADCOUNT ESTIMATES

State	1993-94 (50th round)			1999-2000 (55th round)		
	Urban	Rural	Overall	Urban	Rural	Overall
Bihar	26.7	48.6	45.9	24.7	41.1	39.0
Orissa	15.2	43.5	39.9	15.6	43	38.5
Punjab	7.8	6.2	6.6	3.4	2.4	2.7
Tamil Nadu	20.8	38.5	32.3	11.3	24.3	19.8
All India	17.8	33.0	29.2	12.0	26.3	22.7

Source.: Deaton and Dreze, 'Poverty and Inequality in India: A Re-Examination,' *Economic and Political Weekly*, 7 Sept.2002.

TABLE 1.4 POVERTY INDICES (% CHANGE)

	Headcount Index			Poverty Gap		
	Urban	Rural	Overall	Urban	Rural	Overall
Bihar	-7.5	-15.4	-15.0	-10.7	-20.6	-20.8
Orissa	2.6	-1.1	-3.5	0.0	8.2	3.4
Punjab	-56.4	-61.3	-59.1	-63.6	-70.0	-60.0
Tamil Nadu	-45.7	-36.9	-38.7	-55.6	-49.5	-50.7
All India	-32.6	-20.3	-22.3	-37.8	-25.7	-27.4

Source: Deaton & Dreze (2002).

count ratios are stagnant if household characteristics like social indicators improve. However, if Deaton and Dreze's assumptions are accepted, it could be argued that while there was a sizeable decline in consumption poverty in Bihar during the second half of the 1990s, this was not accompanied by similar improvements in other social indicators, which depend on longer-term factors that are slower to change.

It is important to understand poverty reduction in terms of levels of poverty as well as changes in poverty across time. While reduction in rural poverty in Bihar was higher in absolute terms than in a number of states like Punjab (measured relative to the level of poverty), the decline was much lower for Bihar than for the country as a whole. Table 1.4 assesses poverty reduction in Bihar as a percentage of the initial level of poverty adjusted for the scale effect. In terms of percentage changes of poverty indices, Bihar's performance was worse than the national average, and worse still compared with Punjab and Tamil Nadu.

The poverty gap index — which measures the depth of poverty — depicts similar results. Bihar's poverty gap was much higher than the national level in both urban and rural areas in 1999-2000, despite some improvements in rural areas between 1993-94 and 1999-00 (Annexure 1: Table 1.1).

Regional poverty incidence. The aggregate poverty trends conceal the diverse patterns of regional development in Bihar. In fact, Bihar is far from homogenous with regard to the distribution of its natural resources and growth patterns. According to Sharma (1995),⁷ it is divided into two geographical units: the plains and the plateau. The Ganga separates the plains into two very different regions with regard to the natural, social and economic environment: the northern and southern Bihar plains.

Table 1.7 shows that the level of rural poverty varies widely across regions and sectors. In 1993-94, North Bihar and the Chhotanagpur plateau were significantly poorer than South Bihar. The regional variation, however, shrank over time. In North Bihar and the Chhotanagpur plateau, perceptible reductions in rural poverty (around 7-11%) were achieved. On the other hand, rural poverty in the South Bihar did not show any improvement since 1993-94. Although overall urban poverty declined slightly in Bihar (including Jharkhand), urban poverty increased in both North and South Bihar (Table 1.5), with urban North Bihar becoming significantly poorer over the period.

Poverty profile: Who are the poor?

The question: Who are the poor is closely related to the regions where poverty is concentrated, or to the factors that make an individual more vulnerable to poverty. On one hand, a variation in poverty among states is explained largely by structural factors, such as population density, ecological conditions, poor growth and employment options, and the availability of infrastructure such as irrigation

TABLE 1.5 HEADCOUNT INDEX ESTIMATES AT THE REGIONAL LEVEL

	1993-94	1999-2000
Rural		
North Bihar	49.3	38.0
South Bihar	44.4	44.1
Chhotanagpur plateau (Current Jharkhand)	52.6	45.0
Urban		
North Bihar	30.6	35.3
South Bihar	20.8	23.3
Chhotanagpur plateau (Current Jharkhand)	24.6	19.7

Source: Deaton (2003).

and transport. On the other hand, other conditions affecting the rural poor — gender, literacy, land ownership, employment status, caste and family size — create a more discernible pattern within a state. For example, a member of a scheduled tribe or caste, or a landless or near-landless household inevitably faces a significantly higher than average risk of poverty. In exploring these factors, this section will focus on certain major poverty correlates: occupational status, land ownership, educational attainment of household heads, and social groups, such as caste groups.

Poverty and occupational status. One of the long-standing problems in Bihar's economy has been lack of economic diversification (Sharma 1995): more than 80% of the rural population is engaged in the agricultural sector. Successive Bihar governments have attempted to facilitate development in the rural non-farm sector, but a poor investment climate has discouraged prospective investors from selecting rural Bihar.

The NSSO data shows that wage employment in agricultural labor accounted for nearly 40% of the rural workforce in Bihar in 1999-00, compared to 42% in 1993-94, but still constituted the dominant occupation in rural areas of the state (Annexure 1: Table 1.2). Agricultural labor and cultivation together account for around 80% of occupations in 1999-2000. There is still very limited occupational opportunity outside the agricultural sector in rural Bihar.

There is a sharp contrast in occupational distribution between the poor and non-poor in rural areas. The poor are far more likely to be agricultural wage workers or casual non-farm laborers, rather than cultivators or employed in a regular non-farm job. Over time, the share of agricultural labor in the poorest quintile has declined, while casual non-farm labor and self-employed non-farm occupations have increased. Such an occupational shift does not necessarily mean an improvement in occupational status of the rural poor. Casual non-farm labor is a "last resort" that households choose only when other options have been exhausted. Self-employment activities include a wide variety of occupations that could be as vulnerable as casual labor, especially for the poor. Casual labor offers one of the lowest wages among all occupations and the terms of employment are usually short and unstable. The recent occupational shift from agricultural labor to non-

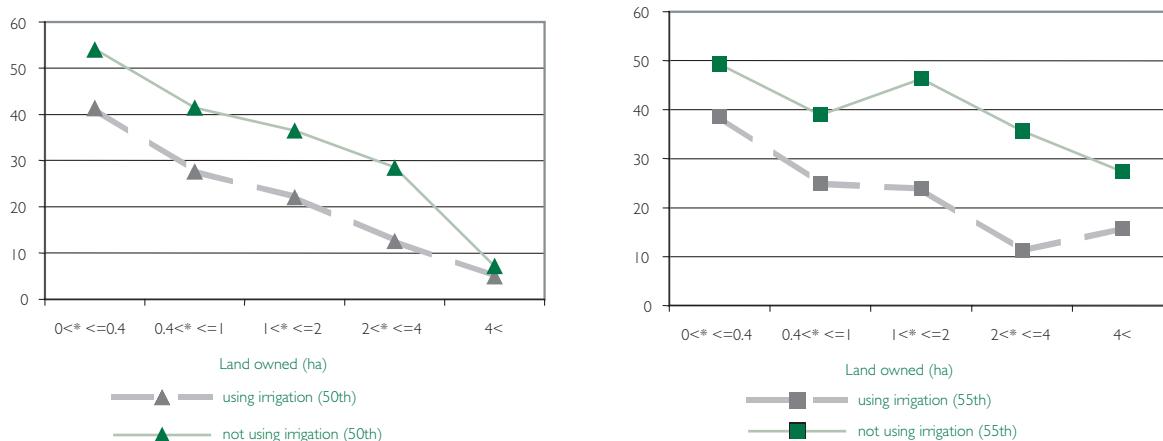
agricultural labor represents a move to higher daily nominal wages, irrespective of location and gender (Annexure 1: Table 1.4). However, this is not beneficial for poor households since occupational shifts might improve poor households' wages and income levels, but worsen their vulnerability to adverse economic shocks.⁸

In urban areas, more than 40% of household heads are self-employed, and around 30% have regular employment in 1999-2000 (Annexure 1: Table 1.3). While casual wage labor represents only around 10% of occupations among all urban household heads, it accounts for more than half the household heads in the poorest quintile, indicating that the majority of the urban poor has no choice but to work in this vulnerable sector. The share of household heads working as casual wage labor actually increased from 50% to 54% between 1993-94 and 1999-2000.

According to Sharma (1995), the underemployment rate in rural Bihar is very high, as compared to the national average. This suggests that work seekers in rural Bihar face difficulties in finding stable positions that provide high wages over time within the state. Such increased vulnerability of casual laborers generates large out-migration to other states.

As many studies have shown, out-migration is a crucial survival strategy for the rural poor in Bihar. In fact, both the census and NSS report that Bihar has the highest rate of gross interstate out-migration in India. Some important facts on out-migration emerge from the 1998 UP-Bihar Living Conditions Survey: first, as much as 95% of out-migrants were male; second, out-migration is the highest in the poorest and the richest quintiles; third, the duration of out-migration from the poorest quintile tends to be shorter, as compared to the richest group. Another important aspect of out-migration is remittance from migrants to households. The ratio of remittances to household consumption is around 4 % for all households in the survey, and lower for SC/STs households, who are likely to be poor, for North Bihar and South Bihar alike. This may be because out-migration from poorer households tends to be only temporary, while out-migration from richer households tends to be much longer.⁹

FIGURE 1.3 POVERTY INCIDENCE BY LAND OWNERSHIP AND ACCESS TO IRRIGATION (%)



Poverty and access to physical and human assets

Land ownership. In the rural areas, land ownership is closely associated with poverty not just because land provides the main source of income, but also because land ownership improves access to economic and social opportunities. Table 1.6 indicates that the poor typically own less land than the non-poor in Bihar. In fact, 75 % of the rural poor were “landless” or “near-landless” in 1999-2000. This has expanded by 8% since 1993-94. As Figures 1.3 (a) and 1.3(b) clearly show that in 1999-2000 poverty incidence was substantially lower if a household had access to irrigation, irrespective of the size of land ownership. The high levels of inequality that have persisted in land ownership (Table 1.6) may be partly attributable to slack progress in land reform in the state (see Box 1.1 in Annexure 1). Land reform in Bihar started in 1950, with the abolition of intermediaries between landlords and the cultivators who worked under feudal lords, often under very exploitative arrangements. While the first Land Ceiling Act was passed in 1961, progress has been extremely slow — only 1.5 % of cultivable land was acquired and distributed by 1986, of which surplus land (meant to be redistributed) accounted for only 20% (Sharma 1995).

The analysis so far has shown that marginal landholders, and individuals engaged in agricultural labor and casual non-farm labor are likely to be poor. Consistent with this, a high correlation between landholding and occupations is observed in the NSSO data of 1999-2000: marginal landowners are much more likely to be engaged in agricultural labor, casual non-farm labor and self-

employed activities than large landholders; large landowners are more likely to be engaged in cultivation and regular non-farm labor than marginal landholders (see Annexure 1: Table 1.8).

Land ownership and tenancy arrangements. In the context of large inequality in land ownership in Bihar and the high incidence of poverty among the marginal farmers and the landless, it is important to highlight the role played by contractual arrangements of land-leasing in the livelihoods of these groups. In 1998, nearly 25 % of cultivated land in rural Bihar was leased-in (Srivastava 2003)). For small landholders (0.5-1 acres), leased-in land was as much as half the size of their average cultivable land; for SC/ST households around 80% of cultivated land was leased-in (Figure 1.4).

In view of the high incidence of leasing-in of land among the small and marginal farmers and backward social groups, tenurial arrangements — including security of tenure and rental rates — are likely to have a significant impact on the livelihoods of the poor. Efforts to provide legal protection to tenants through tenancy and land reforms have not met with much success, with the result that a majority of tenancy contracts continue to exploit the poor.

Although tenancy reforms — as a part of land reform efforts — have been carried out since 1963, the status of tenants has continued to be vulnerable in terms of rents and security of tenure. A majority of tenants pay half the gross output to landowners as rent, much in excess of the statutory provision of 25%. Furthermore, after a series of ceiling acts and tenancy reform acts, the system of tenancy has become almost entirely concealed and

TABLE 1.6 RURAL POVERTY INCIDENCE AND SHARES BY LAND OWNERSHIP

Land owned (ha)	50th round (1993/94)			55th round (1999/00)		
	% of rural population	Poverty incidence	% share of the poor	% of rural population	Poverty incidence	% share of the poor
No land	9	51	12	10	56	14
0<*<=0.4 ha	43	51	55	53	46	61
0.4<*<=1 ha	24	34	20	20	29	15
1<*<=2 ha	15	28	10	10	30	7
2<*<=4 ha	7	18	3	4	16	2
>4 ha	3	6	0	2	18	1
Overall	100	40	100	100	40	100

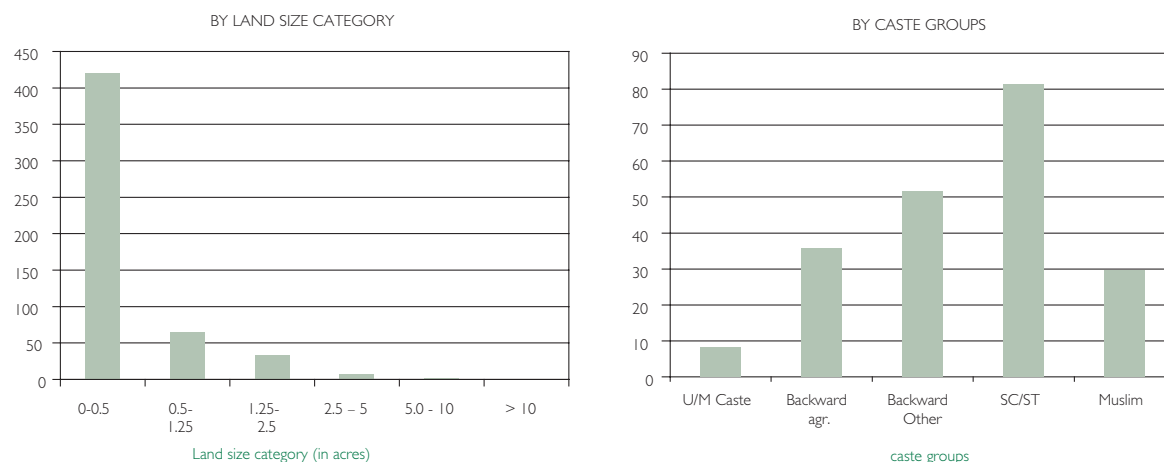
Notes: Poverty is defined as per capita consumption rank < 40%.
Source: The 50th and 55th round NSSO surveys (Schedules I & II).

informal. Concealed tenancy adversely impacts the security of tenure. It weakens the tenants' bargaining position and ability to enforce contract terms, and reduces the scope for greater land access through rental markets. Reducing rural poverty in Bihar means providing security of tenure to small and marginal farmers and the landless through effective implementation of land reforms.

Livestock ownership. Livestock is an important productive asset for rural households in India. The UP - Bihar Living Conditions Survey shows that: first, a majority of rural households own some kind of livestock; second, the poor and socially disadvantaged households tend to own low-quality livestock (goats rather than cows and buffaloes). Consistent with this pattern, households of upper castes and backward agricultural castes tend to own buffaloes and cows rather than goats, compared with SC/ST and Muslim households (see Annexure 1: Figure 1.1) which indicates that the poor tend to

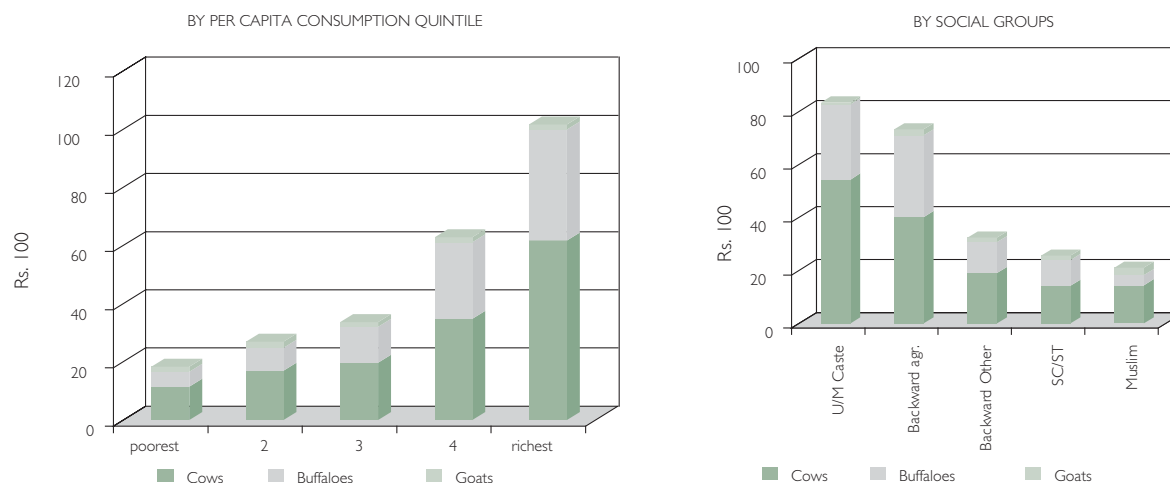
own livestock of lower quality. The total value of livestock per household in the richest quintile is almost six times higher than that of the poorest quintile (Figure 1.5).

Poverty and education. Education is a key indicator of human development — many desirable social and economic outcomes are linked to rising levels of education. A higher level of educational attainment facilitates non-farm economic growth, resulting in economic diversity (Datt and Ravallion, 2002). According to NSSO data, there is a strong relationship between consumption poverty and educational attainment of the household head (see Annexure 1: Table 1.9). In both urban and rural areas, average consumption levels of households whose heads had completed secondary education or higher education are significantly higher than those of households whose heads were illiterate. Nearly 80% of household heads in the bottom quintile in rural areas were seen in 1993-94 as hav-

FIGURE 1.4 LEASED-IN LAND AS A PERCENTAGE OF CULTIVABLE LAND


Source: Srivastava (2003).

FIGURE 1.5 VALUE OF LIVESTOCK PER HOUSEHOLD



Source: Srivastava (2003).

ing had no education, as compared to around half in urban areas. This pattern remained largely unchanged between the two surveys. Further, when the household head is illiterate, the household members are nearly eight times more likely to be engaged in agricultural labor than if he or she had attained secondary level education or higher education (Annexure 1: Table 1.10). These results suggest that with an illiterate household head, the opportunities of household members tend to be restricted to low-wage employment.

Poverty and social identity. Numerous studies have revealed significant links between social identity and poverty in India. Social or caste characteristics are associated with constraints and lack of opportunities that cut across multiple dimensions: caste identity is a strong indicator of the poor, illiterate, low-paid, low-status agricultural labor, or

those living in poorly constructed housing with limited access to basic services. In Bihar, despite decades of effort on the part of successive governments, the SC/STs are likely to be around three times poorer than the upper castes, and appreciably poorer than other backward castes and Muslims. (Figure 1.6). Consistent with this, per capita household expenditure and landownership of SC/STs is significantly lower than that from the non-SC/ST castes in both urban and rural areas in 1999-2000, and the gap has remained virtually unchanged since 1993-94 (Table 1.7). SC/ST households are almost three times more likely to be landless than others (Table 1.8).

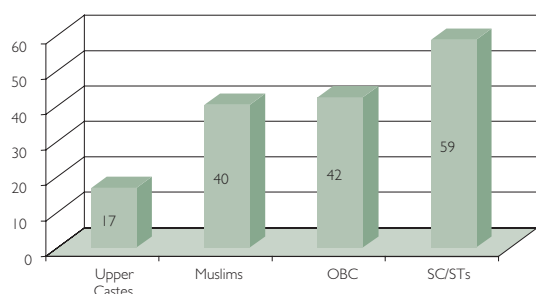
A number of factors account for the gap in living standards between SC/STs and the majority of households. First, SC/STs are less likely to own much land or have much education. More than 70

TABLE 1.7 PERCENTAGE OF POPULATION, MEAN CONSUMPTION AND LAND OWNERSHIP BY SOCIAL GROUP

	50th round (1993-94)			55th round (1999-2000)		
	% of population	median pc exp	median land own (ha)	% of population	median pc exp	median land own (ha)
Rural						
Majority	70	206	0.42	72	368	0.25
SC/ST	30	175	0.04	28	312	0.03
Total	100	197	0.35	100	349	0.20
Urban						
Majority	82	298		82	495	
SC/ST	18	236		18	384	
Total	100	281		100	470	

Source: The 50th and 55th round NSSO surveys (Schedules I & II).

FIGURE 1.6 RURAL POVERTY AMONG SOCIAL GROUPS IN BIHAR, 1999-2000



Notes: OBC refers "Other Backward Castes."
Source: Bihar Development Report (2003).

% of household heads from SC/STs were illiterate in 1999-2000, as compared to about half of the household heads from other social groups (Annexure 1: Table 1.11). Second, the job opportunities for SC/STs tend to be restricted to low-paid jobs: around 60% of SC/STs were engaged in agricultural labor compared to only 30% in the case of other households. A sizeable occupational shift to casual non-farm labor is seen for SC/STs between 1993-94 and 1999-2000 (Annexure 1: Table 1.12).

Addressing poverty remains an enormous challenge for policy makers in Bihar, especially in rural areas where almost 87% of the population and 90% of the poor live. According to recent estimates, despite some progress in poverty reduction over the years, 41% of the rural population remains below the poverty line. This section indicates that poverty in Bihar is a complex phenomenon arising out of a range of economic, social, cultural and political factors. Rural poverty in terms of low consumption or income, in particular, is closely associated with limited access to land, education, and high-paid occupations, reflective of an underprivileged social group or caste. A critical aspect of poverty in Bihar is that of caste or social identity, whose impact cuts

across all dimensions. SC/ST households, for instance, are not only significantly poorer than the rest of the population, but are also more likely to be marginal landholders, working as agricultural labor, and illiterate.

Social Sector Outcomes in Bihar

Low social indicators in Bihar reflect significant constraints in the poor's ability to extricate themselves from long-run poverty. The social gaps in Bihar — seen in the lack of education, health, sanitation and other indicators — are acute and have persisted over the decade. This section focuses on education and health outcomes and generates discussion on possible policy responses.

Education outcomes

The 2001 census shows Bihar's literacy level as India's lowest (48% and 65% for Bihar and India, respectively); the net primary enrollment rate for Bihar in 1999-2000 was 52%, compared to 77% nationally. Indicators for women are considerably worse than for men, with an enrollment gap of 14% (58% for men versus 44% for women) and a literacy gap of 26% (60% for men and 34% for women). Net primary enrollment and literacy rates among women in Bihar are much below the national averages of 73% and 54%, respectively.

Bihar is the only Indian state where primary enrollments have fallen. Between 1993-94 and 1999-2000, the fall was 2% (down 4% for boys and 1% for girls). Since enrollments are the base for the future stock of human capital — a key input to growth and poverty reduction — stagnant or falling enrollment threatens long-term growth, and Bihar's competitive position vis-à-vis other Indian states.

TABLE 1.8 RURAL LAND OWNERSHIP BY SOCIAL GROUPS

Land owned (ha)	50th round (1993-94)		55th round (1999-2000)			
	Majority	SC/STs	Overall	Majority	SC/STs	Overall
No Land	6.8	14.0	8.9	6.8	18.6	10.1
0<*<=0.4	38.1	53.3	42.8	51.6	57.6	53.3
0.4<*<=1	27.4	15.7	23.9	23.2	13.5	20.5
1<*<=2	16.9	9.6	14.7	11.3	6.7	10
2<*<=4	7.6	5.3	6.9	5.1	2.5	4.4
4<	3.2	2.1	2.8	2.2	1	1.9

Source: The NSSO 50th round and 55th round surveys (Schedules 1 & 2).

TABLE 1.9 AGE-SPECIFIC SCHOOL ATTENDANCE RATIO (%)

Age Category	NSS (52nd round): 1995-96			NFHS-2: 1998-99		
	Rural	Urban	Total	Rural	Urban	Total
6-10	43.85	67.94	46.37	60.73	76.86	62.62
11-13	54.66	83.51	58.24	61.66	80.60	64.28
14-16	40.45	70.58	45.25	49.06	71.18	52.61
17-18	20.84	54.69	26.16			
19-24	10.85	34.49	14.74			
Aggregate	37.52	61.99	40.75	58.38	76.26	60.75

Notes: ASAR=percentage of children attending an educational institution for each age group.

Inconsistency of data sources. A word of caution on data is necessary as various data sources for education in Bihar often lack agreement and consistency. The NSS and NFHS sources reflect numerous differences on population data. This report relies mainly on NSS data as the source for calculating poverty estimates, and linkages between poverty and education. Moreover, NSS has more complete information on educational attainment. It is, however, reassuring that for most indicators, the broad patterns across social and economic groups, regions and gender are common to both surveys.

Education indicators. Table 1.9 shows the enrollment rates in Bihar, disaggregated by urban and rural regions for different age categories (NFHS figures are included for comparison). Two distinct patterns emerge: first, the rural-urban gap is significant for all age groups. Second, the enrollment rates peak in both rural and urban areas for the age-group 11-13 years, indicating late entry into school, as well as high dropout rates for higher age categories. For children aged 12 years, only 37% in the rural areas and 57% in the urban areas completed primary school in 1995-96 (NSS data). A large rural-urban gap is also observed for primary school completion rate.

Low completion rates result from a combination of low rates of entry, late entry into school, and dropout rates. This is supported by the evidence that “transition” through the educational system is weak: in 2000-01, 24% of primary school students transitioned to the upper primary level; 12% from the upper primary level to the secondary level and 10% from secondary level to the higher secondary level. Transition rates are even lower for girls and SC/STs. Low education attainment among the youth is also evident, and the rural-urban divide is apparent in the distribution of education attainment by level: while around 59% of 20-24 year olds in

urban areas had high school or higher secondary education, this was true for only 38% of those in rural areas (Annexure 1: Table 1.13).

Differences across gender, economic and social group. Stark differences are observed along a number of economic and social dimensions. First, gender differences are large. The male-female gap in enrollments is substantially larger in rural areas than in urban areas, and tends to be larger for higher age groups. Gender gaps also characterize the primary completion rates of 12-year olds, shown in (Table 1.10). The overall patterns indicate that fewer girls, as a percentage of the cohort, start school than boys, and girls also drop out of school at a faster rate and/or at an earlier age than boys.

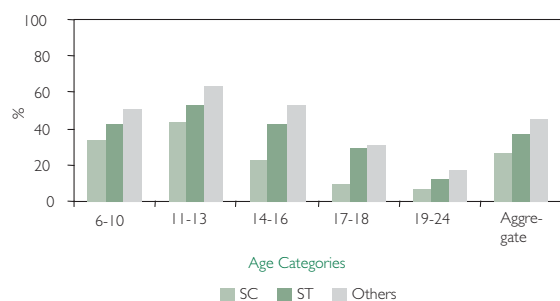
Enrollments are also lower for SC/STs than for the rest of the population (Figure 1.7). The differences become larger for higher age categories, suggesting that as with the gender gap, the initial gap in school entry is exacerbated by lower school retention rates among SC/STs.

Similar differences are observed across economic groups. In rural and urban areas alike, enrollments are higher for all age groups in the case of the higher consumption quintiles. While better enrollments are clearly associated with wealthier households, enrollment is far from universal for even the most well off in the rural areas. This is explained by a combination of factors, such as relatively late entry

TABLE 1.10 PRIMARY SCHOOL COMPLETION RATES (%) FOR 12-YEAR OLDS

	NSS (52nd round): 1995-96		NFHS-2: 1998-99	
	Rural	Urban	Rural	Urban
Female	27.50	54.56	23.75	58.07
Male	42.58	59.43	35.30	55.06
Aggregate	37.02	57.11	29.84	56.55

FIGURE I.7 ASAR FOR DIFFERENT SOCIAL GROUPS 1995/96



Note: ASAR percentage of children attending an educational institution for each age group.
Source: NSS (52nd round).

into schools, lack of schooling opportunities and lower return to education in rural areas.

Therefore, the overall picture that emerges is one of large differences in education outcomes across gender, as well as social and economic groups. Gender gaps are particularly significant in rural areas and for higher age groups. Across social groups, enrollments are lower for SC/STs, indicating disadvantages along caste lines that are likely to perpetuate their poverty. While better outcomes on the whole are associated with higher economic status of the household, the correlation is stronger in urban areas. These patterns suggest that while economic status does play a part, there are other factors that play equally important roles in restricting education, particularly in rural Bihar where education is limited even among the higher economic groups.

Health outcomes in Bihar

Health outcomes in Bihar, with some exceptions, are below the national average. At current rates of

progress, Bihar will be able to achieve the MDG targets for infant mortality, child malnutrition and access to safe drinking water. In the case of two key indicators, namely proportion of births attended to by skilled personnel and access to sanitation, the progress remains far below the levels that are necessary. Against this backdrop, it is important to take a closer look at the available data on health indicators for Bihar.

There are some indicators that show positive trends. For example, infant mortality and child mortality rates are not only lower than those in Orissa and Uttar Pradesh, but have also shown substantial improvement during the 1990s. Other important indicators however continue to lag far behind the national averages. Maternal mortality rate (MMR) in Bihar is 707 per 100,000 women of reproductive age, compared to the national average of 404. As is well known, high MMR is the result of several factors, such as lack of antenatal care (ANC) and post-natal care (PNC) and high incidence of unsafe deliveries. These indicators are deficient in Bihar, even compared to other laggard states like Uttar Pradesh and Orissa (Table 1.11). Antenatal care (ANC) reaches only around 10% of the women in Bihar compared to 32% for India. The percentage of deliveries attended to by skilled health staff was only 23% for Bihar as against 42% for the country in 1998-99.

In comparison with the rest of the Indian states, Bihar does better than the country average only for access to safe drinking water. Although child mortality has fallen during the 1990s, it is still above that level in a majority of states. In terms of nutritional status of children, despite some progress, the

TABLE I.11 HEALTH INDICATORS FOR BIHAR AND SELECTED STATES

	Bihar	Orissa	Uttar Pradesh	India
Infant mortality rates				
1992-93	89	112	100	83.3
1998-99	73	81	87	68
Child mortality rates				
1992-93	128	131	141	119
1998-99	105	104	123	95
Other health indicators (1998-99)				
Neonatal mortality (in terms of 10,000 deliveries)	46.5	48.6	53.6	43.4
Safe delivery (percent)	23.4	33.4	22.4	42.3
Antenatal care (percent)	17.8	47.3	14.9	43.8

Source: NFHS I and NFHS II.

proportion of underweight children is still among the highest in the country. Full immunization, which has direct impact on child health, covers only a small fraction of children, and is declining during recent years (Table 1.12). Some attribute this adverse trend to the shift in attention to the pulse polio immunization (PPI) program at the expense of routine immunization. A large number of children also have incomplete vaccination. Aggregate figures for Bihar conceal wide inter-district variations, with standard deviations for some of the indicators being quite high compared to the average. Kishanganj district appears to be at the bottom of the ladder, while Patna and Muzaffarpur rank at the top for most indicators (Annexure: Table 1.14).

This chapter has surveyed the key human development challenges of Bihar focusing on poverty indicators and social outcomes. Bihar is one of India's poorest and largest states, lagging significantly behind national averages in most development indicators. The causes are related to natural endowments, geographical factors, population pressures, social factors such as the caste system, and public policies.

It is important to view Bihar's low human development indicators and high incidence of poverty in

TABLE 1.12 EVALUATED VACCINATION COVERAGE			
Vaccines	1998-99	1999-2000	2000-01
BCG	32.6	37.3	32.0
DPT	22.0	21.6	18.5
OPV	20.5	25.2	20.8
Measles	15.2	20.8	13.3
Fully immune	13.3	12.6	10.0

Source: Department of Family Welfare, Gol.

the context of its overall pattern of weak economic growth. Indeed Bihar's growth in recent years, averaging less than 4% over the five-year period ending in 2001-02, places the state (along with Orissa) at the bottom of the major Indian states. Nor has Bihar's limited growth translated into commensurate poverty reduction (see Box 1). The lack of economic growth imposes strict limits on the state government's ability to finance critical public services in the social sector. It also creates a cycle of low human development and lack of economic opportunities that act as a poverty trap. Breaking out of this cycle will require combining the right economic policies with governance reforms that provide an enabling environment for investment, growth and effective public programs. This is the focus of the next chapter. ■

Notes

¹ The MDGs refer to major international development goals set out in the United Nations Millennium Declaration in 2000 to be achieved by 2015. Most of these indicators are for pre-bifurcated Bihar and this is a handicap in understanding Bihar after its bifurcation. However, other evidence (BDR 2003, Srivastava 2003) suggests that Bihar is not better-off after bifurcation and the MDG challenges are well represented here.

² The baseline estimates for 1990 and extrapolated linear path to 2015 targets are from various years' NSS and NFHS data, 1988-2001.

³ Rao (2003): *Regional Policies, Resource Flows, and Regional Equity in India*.

⁴ See Deaton (2003) for regional poverty indices.

⁵ The Gol estimates for rural Bihar are 58 % and 44 % for 1993-94 and 1999-2000 respectively, while Kijima and Lanjou estimates for the corresponding years are 48.6% and 48.3%.

⁶ For example, households that over-reported expenditure on food consumption might report some adjustments to expenditure on other consumption goods.

⁷ *Sharma, Alakh N. (1995): "Political Economy of Poverty in Bihar," *Economic and Political Weekly*, Vol. 30, Nos. 41 & 42: 2587-2602.

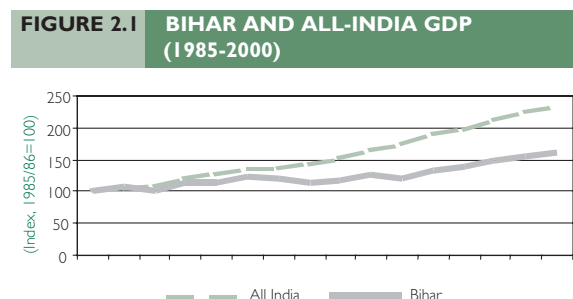
⁸ Kozel, V. and B. Parker (1999) "Poverty in Rural India – The Contribution of Qualitative Research in Poverty Analysis," in *WDR on Poverty and Development 2000-01*.

⁹ See Annex 1 for detailed findings on out-migration.



IMPROVING THE CLIMATE FOR INVESTMENT AND GROWTH

Economic growth is the most powerful force for reducing income poverty. Linkages between growth and poverty reduction, and the role of the government in promoting growth, are complex and depend on a range of institutional, cultural, historical and physical parameters. Bihar has, in general, grown slower than the rest of India, with less robust links between growth and poverty reduction as compared to other states. Accelerating growth and strengthening these linkages will be critical for improving Bihar's capability to reduce poverty and attaining the MDG targets, in particular the goals of halving the proportion of those living on incomes of less than one dollar a day and the proportion of people suffering from hunger. Given the dependence of Bihar's economy on agriculture and the large percentage of the state's poor that are dependent on rural incomes, improving agricultural performance is particularly important for growth and poverty reduction. This chapter examines Bihar's growth performance in the context of the comparative advantage that the state enjoys in agricultural pro-



duction, and its crucial dependence on the investment climate.

Growth Performance in Bihar

Bihar's Gross State Domestic Product (GSDP) data indicates that growth performance has been quite weak, averaging barely 5% during the 1980s, which was below the national trend rate of 5.6%, and then turning flat in the first half of the 1990s when the national growth rate remained above 5% (Table 2.1). Post bifurcation, Bihar continues to lag seriously behind other states in India. Over the period 1994-95 to 2001-02, when data for the new

TABLE 2.1 GROWTH PERFORMANCE OF BIHAR : 1981-82 TO 2001-02

	Former Bihar 1981-82 to 1990-91	Former Bihar 1991-92 to 1995-96	Divided Bihar 1994-95 to 2001-02
GDP	4.9	0.0	3.8
Agriculture	4.6	-2.0	0.8
Industry	5.2	0.5	10.5
Services	5.6	2.2	6.4
	India		
	1981-82 to 1990-91	1991-92 to 1995-96	1994-95 to 2001-02
GSP	5.6	5.4	6.1
Agriculture	3.6	2.3	3.0
Industry	7.1	6.3	6.4
Services	6.5	7.0	8.0

Note: Period growth rate is the average of annual growth rates over the period.
Source: Central Statistical Organization, Gol.

state of Bihar is available, the growth rate averaged 3.8% or less than two-thirds the national growth rate of 6.1% per annum.¹ This has widened the GSDP gap at an accelerating rate over the past decade (see Figure 2.1).

Comparisons in per capita income growth reveal an even less favorable trend for Bihar. This is mainly due to the state's high population growth rate, which averaged 2.5% between the 1991 and 2001 censuses, the highest in the country and well above the national average of 1.9%. Moreover, unlike the other states whose population growth rates have been declining over the decades, Bihar's population growth rate in the 1990s was higher than the 2.1% experienced in the 1980s. This has aggravated Bihar's population pressure and depressed income growth, making fertility control an important development issue.

The sectoral composition of Bihar's economy reveals the important role of agriculture in aggregate production. In undivided Bihar, the contribution of agriculture, fisheries and forestry in total output was 33% during 1998-99 (Table 2.2). Bihar lost most of its industry and mining to Jharkhand after the bifurcation, and agriculture now represents 39% of GSDP (as compared to 23% for the country). In contrast, Bihar's industrial sector is the smallest among India's major states, contributing only 12% to GSDP (compared to 27% nationally) and employing fewer than 10% of the workforce. The tertiary sector is Bihar's largest, generating 49% of the state's GSDP, mainly in trade and transport services, finance, real estate, and government (public administration).

The unsatisfactory performance of agriculture, Bihar's most important sector, is responsible for the state's low aggregate growth rate. Agriculture provides employment for three-quarters of the workforce, and is the main source of income for the majority of Bihar's rural poor. Hence improving agricultural incomes is the key to reducing income poverty. Agriculture showed negative growth in the early 1990s, and since the mid-1990s through 2001-02 it has grown by less than 1% per annum, implying a negative growth rate of agricultural output per capita. In contrast, industrial growth averaged 10.5% per annum from the mid-1990s, exceeding the national growth rate, though from a very low base. Small-and medium-scale enterprises predominate in Bihar's industrial sector. The performance of services has been higher than agriculture (6.4% p.a.), but is below the national average growth rate of 8% per annum. Moreover, services appear to be relatively capital intensive and have not absorbed a share proportionate to their GSDP level in the workforce.

The linkage between growth and poverty reduction in Bihar also appears quite weak relative to other states, including the relationship between non-farm growth and poverty reduction. Several factors account for this, including Bihar's poor initial conditions of both rural development and human resources. Recent research suggests that Bihar's low rates of literacy and overall weak human resource development are major causes for the lack of an adequate link between non-farm growth and poverty reduction. (see Box 2.1).

A serious impediment to Bihar's growth is the shortage of investment flows from public and pri-

TABLE 2.2 PERCENTAGE DISTRIBUTION OF GROSS STATE DOMESTIC PRODUCT 1993-94 PRICES (AT FACTOR COST)

	Bihar 2001-02 (quick estimates)	Undivided Bihar (1998-99)
Primary sector of which	38.6	32.7
Agriculture and AH	35.2	29.9
Secondary sector of which	12.1	27.6
Manufacturing	5.1	13.1
Tertiary sector of which	49.2	39.7
Transport, Comm.&Trade	21.3	17.8
Finance and Real Estate	8.8	7.6
Public Administration	8.1	6.4
Other Services	11.1	7.9
Total	100.0	100.0

Source: Directorate of Statistics and Evaluation, GoB, Patna.

BOX 2.1 WEAK PRO-POOR GROWTH IN BIHAR

In India, overall economic growth in the non-agricultural sector has been pro-poor insofar as increases in the growth rate have reduced poverty levels. However, this correlation varies, and in Bihar it has been weak. A likely reason is that economic growth reduces poverty to a lesser extent in a state with poorer initial conditions of rural development and human resources and with a higher scale of unequal land distribution.

Ravallion and Datt (2002) have constructed a time series of 20 household surveys across the major states from 1960 to 1994. They found that non-farm economic growth reduces poverty at a different rate across states - Bihar appears to have the lowest elasticity of poverty to non-farm output, averaging 0.3%, or around one-quarter the rate of the observed country mean of 1.3% per annum. (see table), and less than one-tenth that of the highest elasticity of 3.5% per annum, as found in West Bengal. Even a small variation in the annual rate of poverty reduction has a significant long-term impact on poverty rates. If all states had Bihar's annual rate of poverty reduction (0.3%), the national headcount index in 1995 would be 43% instead of the actual figure of 30%.

Ravallion and Datt (2002) use empirical evidence to show that non-farm growth does not reduce poverty effectively in Bihar, due to its very limited rural and human resource development and highly unequal distribution of land. Among the constraints to pro-poor growth, the role played by literacy is particularly noteworthy. For example, nearly two-thirds of the difference between non-farm output elasticity of poverty for Bihar and Kerala (one of the top performers in pro-poor growth) is attributable to Kerala's substantially higher initial literacy rate.

Actual and Simulated Mean Annual Rates of Poverty Reduction across States

	Annual rate of poverty reduction	Headcount index in 1995
Actual mean across all states	1.3	30
Bihar	0.3	43
West Bengal	3.5	14

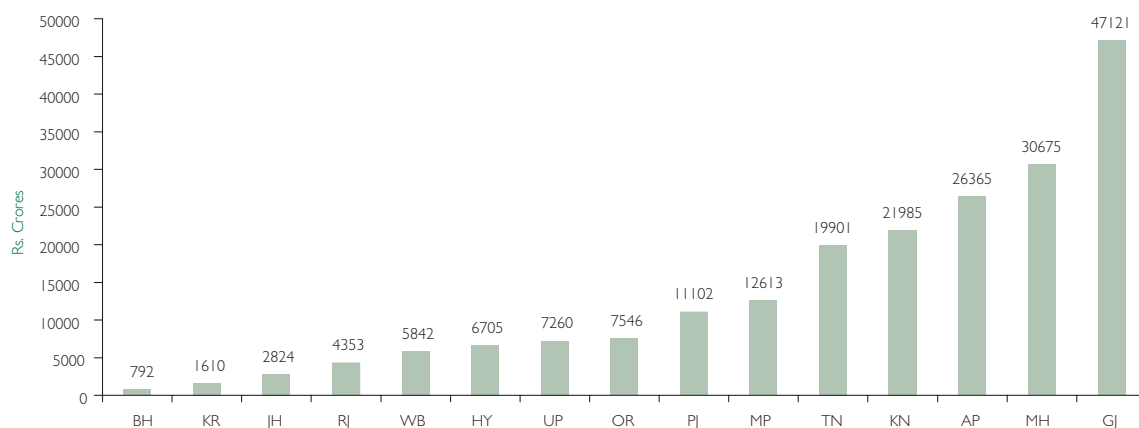
Note: The first row shows the unweighted means of the actual rates of poverty reduction and the actual headcount index in 1995 across states. 1/: The headcount index in 1960 was 48%.

Source: Ravallion and Datt(2002)

This evidence is consistent with a decline in income distribution, which erodes the contribution of growth to poverty reduction. Deaton and Dreze (2002) estimate that for Bihar the relationship between the distribution neutral growth in consumption expenditures and the decline in poverty headcount is around -1.0 for rural households and around -0.8 for urban households. In other words, a 10% increase in consumption expenditures evenly distributed across households would reduce rural poverty by around 10% and urban poverty by around 8%. Increased inequality in expenditure distribution during the last two NSS surveys, however, appears to have reduced this by around one-tenth in rural areas and one-half in urban areas, according to estimates by Deaton and Dreze (in 'Poverty and Inequality in India: A Re-Examination,' EPW, September 7, 2002).

vate sources. Constraints on public investment are discussed in Chapter 3. Private investment flows to Bihar are also highly limited. Data on projects currently under implementation (i.e. projects where financing has been finalized and work has begun) shows the very low level of private project investment in Bihar. As of December 2003, Bihar accounted for about Rs. 800 crore or 0.4% of the total, as compared with Uttar Pradesh (3.5%), Orissa (3.7%), and Madhya Pradesh (6.1%), as illustrated in Figure 2.2²

In order to create an environment conducive to high growth rates, a comprehensive development strategy is required that will address the main constraints to growth, while working with highly limited public resources. One important objective should be to use public resources effectively to encourage greater private sector investment and other non-governmental resource flows for productive purposes. This will require examining the institutional and market environments in which investment and business is being conducted, as

FIGURE 2.2 STATE-LEVEL PRIVATE PROJECTS UNDER IMPLEMENTATION

Source: CMIE, Dec 2003.

well as the physical constraints to economic activity. The following section examines the specific constraints to growth in agricultural production, and considers some examples where Bihar has demonstrated strong performance from which relevant lessons could be drawn.

Constraints to Agricultural Growth³

The bifurcation of Bihar has increased the importance of agriculture in its economy. Nearly 90% of the population lives in rural areas and depends directly or indirectly on agriculture. Fortunately, Bihar is well endowed with land resources. The soils are predominantly thick alluvial (Gangetic) deposits, or swamp and Terai soils, rich in nutrients, such as nitrogen, potash and phosphorous. The state has surplus water resources with potential for double and multiple cropping. However, though productivity on demonstration plots is comparable with the best in the country, there are some drought prone areas with lower production potential. The state thus presents an overall picture of abundant natural resources with the potential to achieve growth equivalent to, or even better than, the more developed agrarian states in the country. Indeed, Bihar is self sufficient in food-grains, and has surplus capacity for export. It is a leading producer of spices and ranks third in fruit production and second in vegetable production in India.

Against this rather positive scenario, Bihar's agricultural performance has been far below its potential, as is evident from the decline in per capita output over the past decade. The growth of agriculture has also been highly volatile, with annual output swings

between minus 20% and plus 30%, which has had significant implications for poverty alleviation and income security of the poor. Bihar's gross sown crop area is also relatively low, and productivity is constrained by the general lack of infrastructure, land holding patterns, and other environmental factors. Some of these are explained further below:

- ◆ **Water control and flooding.** Bihar's gross sown irrigated area of around 50% is relatively low as compared to 95% in Punjab, 67% in Uttar Pradesh, and 60% for India as a whole. The average ground water exploitation is 39%, indicating a large unexploited potential. Annual flooding has exacerbated land degradation and created a host of related economic and social problems (see Box 2.2). In 2000, annual floods in Bihar affected 8.2 million people and 7,80,000 hectares of land, over half of which were under crops, amounting to an estimated Rs.28 billion loss to public property. Several districts along or near the border with Nepal have more than half their gross cropped area exposed to damage by floods .
- ◆ **Lack of rural power supplies.** Power generation and utilization rates are among the lowest in India, with only 10% of households with electric lighting, as compared with 56% nationally. Where available, highly irregular supplies are exacerbated by annual flooding. This adversely affects the main lines, and the aging radial transmission lines resulting in high transmission losses and load shedding. The effect on agriculture has been the very low use of electric power pumpsets for ground irrigation and other purposes. As compared with Andhra

Pradesh, for example, Bihar has approximately one-fifth the number of power substations and length of transmission lines.

- ◆ **Fragmentation of land holdings.** Land holdings in Bihar consist predominantly of small farms and holdings with a high degree of fragmentation. The average size of holdings is declining, having fallen to around 0.6 hectares, and over four-fifths of farmers have less than one hectare each. High population density has pushed up the intensity of cultivation: the total cultivated area is around 60% compared with 47% nationally. With the average size of land holdings shrinking as a result of increasing fragmentation, many marginal farms are becoming economically non-viable and oriented towards subsistence. This has slowed the diversification into commercial crops from low value-added cereals that continue to dominate cropping.
- ◆ **Connectivity and market access.** Bihar's state road system, as well as the national highways that run through the state, are poorly developed and are in major need of repair and better annual maintenance. Many villages lack all-weather road access, restricting crop movement to the market and compounding storage difficulties.
- ◆ **Ineffective land reform.** Although Bihar was one of the first states to enact land reform legislation, its implementation has been poor and only a small share of potential "surplus" land has been redistributed and taken possession of, due to various loopholes and difficulties with enforcement.
- ◆ **Land records and land tenancy.** As in many states, the maintenance of land records is a problem. Computerization of land records is being introduced in some districts with encouraging results, but it is a slow process. The procedure of obtaining the Record of Rights is cumbersome, and typically involves significant transaction costs. Problems with land tenancy, which is illegal, are also well known. Although official records suggest that less than 4% of the cultivated land area is under tenancy, field studies indicate a far higher rate of around 25%. Unrecorded oral tenancy is prevalent, with very weak tenant security.

These constraints have led to relatively low crop yields despite fairly rapid growth in the use of high-

yielding varieties (HYVs) during the 1990s. HYVs of rice grew particularly rapidly during the 1990s in Bihar, with the coverage increasing from 38% to 68% by 1999. HYVs of wheat and maize were introduced earlier, and now cover approximately 91% and 75% respectively of cropped area. However, despite favorable endowments and widespread use of HYVs in cereal crops, the constraints mentioned above, and the relatively low average fertilizer use (82kg/ha as compared to 108 kg/ha in Uttar Pradesh, 152 kg/ha in Tamil Nadu and 153 kg/ha in Andhra Pradesh) have all contributed to fairly low productivity levels in agriculture in Bihar.

Bihar's agricultural yield as compared with potential yield (estimated by yield achieved in national and state-specific demonstration plots) reveals a large yield gap across several crops. The gap is particularly large in the case of rice and maize, where Bihar's current yield is less than half the potential yield. Wheat yields in Bihar show a much lower gap, as do many non-cereal crops such as gram, rapeseed, sugarcane, etc. It is also noteworthy that productivity levels of maize and several non-cereal crops rose above the national average, although still falling short of their potential.

Though Bihar has a significant yield gap in crops like potato, sugarcane and rice, this could be construed as encouraging for the state's future growth potential. Currently horticultural crops account for around 4% of cropped area and show strong promise for growth in several districts. It is clear from cropping patterns that a shift towards non-foodgrain crops is already taking place. Litchi cultivation is one such success story. There is potential for further expansion if the right investment climate for agro-business is established (see Box 2.3). Bihar produces 70% of India's litchi crop, which is high in terms of both quality and yield per acre. In addition to litchis, the production of mangoes, pomegranates, lotus seeds (makhana), spices, and other crops show great promise.

Exploiting Bihar's growth potential requires a comprehensive development strategy, and there is also need for national-level attention in problematic areas that go beyond the state's fiscal and institutional management capacity. For example, Bihar's massive long-term annual flooding problem needs investment in infrastructure and cross-border agreements backed by central government intervention. The effort so far has been piecemeal and inade-

BOX 2.2 ANNUAL FLOODS: SETTING BACK THE DEVELOPMENT CLOCK

The annual pattern of flooding which inundates Bihar's districts along the Gangetic plains has enormous human and environmental cost.

- ◆ Sown area is washed away, taking with it the top soil and seeds.
- ◆ Cost of cultivation increases, restricting cropping patterns and technological innovation. Farmers tend to become strongly risk averse.
- ◆ Roads and bridges are damaged, requiring greater maintenance and repair. Marketing of agricultural products becomes more costly and difficult.
- ◆ Electricity lines are broken, leading to increased maintenance costs and irregular power supply. Broken tubewell pumpsets require annual repairs.
- ◆ Human settlements along the river systems are displaced leading to seasonal unemployment, and health and social problems.
- ◆ Irrigation canal systems require expensive maintenance.

Source: WB mission interviews with farmers.

quate. National support for major infrastructure development to improve connectivity with national markets and to strengthen interstate power transmission is also essential and is gradually getting underway. Greater market access and growth potential will in general also benefit from a liberalized national food procurement, stockpiling and distribution system. Bihar has a natural comparative advantage in agriculture but cannot expand its share within controlled national markets. However, these issues are complex and go beyond the immediate scope of this report.

The state has a large agenda for improving public support to agricultural production and improving the economic climate for growth. These should form part of comprehensive reforms aimed at the

many constraints to agriculture outlined above. The focus should lie in providing assistance to smaller holdings that constitute the bulk of Bihar's producers. More specifically, reform is needed to improve: (a) the use and allocation of public finances for enhancing effective public investment in rural infrastructure (Chapter 3); and (b) public administration and governance for providing high-quality public services to rural communities (Chapter 4). Besides, improvement in public service delivery is vital for agricultural extension services to reach intended beneficiaries, expanding access to new and high-quality seed varieties and other inputs, improving land registration, and tackling the problem of land fragmentation and tenancy. At the local level, experimentation in innovative community approaches to service delivery has shown very

TABLE 2.3 YIELD GAPS FOR VARIOUS CROPS IN BIHAR (KG/HA)

Crops	State average yield	Potential yield**	Yield gap average	Yield at all India
Rice	1,218	3,026	1,818	1,940
Wheat	1,816	3,052	1,236	2,703
Maize	1,844	4,056	2,212	1,810
Gram	1,017	1,380	363	792
Arhar	1,379	1,830	451	727
Rape-Mustard	1,360	1,850	190	1,002
Jute	1,409	2,010	601	1,823
Sugarcane	48,856	62,780	13,924	70,578
Potato	9,060	23,500	14,440	18,161
Mango*	1,000	1,660	660	-
Litchi*	1,000	1,850	850	-
Banana*	5,000	8,000	3,000	-

Notes: *Yield numbers per tree; **Yield achieved in national demonstration and other demonstrations; Yield gap is computed from these figures.

Source: Yadav et al (2000), in J. Prasad (ed.), *Export Potential of Indian Agriculture*, New Delhi.

promising results. In irrigation, for example, Bihar's participatory irrigation management approach has shown that irrigation services can be significantly expanded and yields increased at lower unit cost to communities and lower cost to the government (see Box 5.6). Many of these measures also fall under the broad aspect of investment climate improvement, which is as pertinent to agriculture and agribusiness as it is to improving the growth performance of industry and services.

Bihar's Investment Climate

Investment climate (IC) refers to the institutional, economic, political and infrastructural environment that shapes the manufacturing sector's operations and expectations (see Box 2.4). Comparative sur-

veys, conducted by the Confederation of Indian Industry in collaboration with the World Bank (CII - WB), have examined several IC indicators to compare 11 Indian states and identify the main challenges in improving the IC.

The comparative survey analyses the main differences in "good" and "bad" state investment climates. Costs to businesses of a poor investment climate — for example, an unreliable power supply, onerous regulations, and intrusive and disruptive visits from government officials — were found to be high. The states ranged from Uttar Pradesh (ranked as the worst IC in the survey) to Maharashtra (ranked as the best). The analysis highlights the impact of three main factors, which in particular affect small-and medium-sized enterprises:

BOX 2.3 LITCHI CULTIVATION IN MUZAFFARPUR

India is the second largest producer of litchis in the world after China and produces approximately 450,000 metric tons annually. About 70% of India's litchi production comes from Bihar, the traditional source of the fruit in the country, where the increase in cultivation in the last decade has been impressive particularly in Muzaffarpur. Significantly, this change seems to have occurred almost entirely due to market forces, with no concerted effort or planning by either the government or any organized institutional mechanism. About 2000 farmers in Muzaffarpur grow litchis; the average size of a litchi orchard is 1.2 hectares, with 170-200 trees per hectare. For most farmers, the main income is from cash crops such as paddy and maize, and litchi cultivation is an additional activity; only about 200 orchards grow high-quality exportable litchi varieties. Limited formal credit facilities and a long gestation period have meant that most farmers have gradually increased their orchard sizes. There are no litchi cooperatives in the district, and while some milk cooperatives do market litchis grown by their members, this is rare.

The growth of the litchi industry has been driven by two major factors: first, an increase in demand from external non-traditional markets, which has sparked off the interest of local traders and entrepreneurs looking for export opportunities. Second, fairly stable prices and income potential has made investment in litchis attractive to local farmers. As a result there has been a change in litchi cultivation and marketing with as much as 50% of the farmers now selling their crop to traders before the harvest for half the purchase price up front. For an estimated 10% to 15% of farmers the relationship extends to contract farming where the middleman finances inputs - seeds, fertilizer, pesticides, and credit. Traders have an incentive to provide farmers with new information and technologies, helping farmers to increase their productivity.

The two main problems facing litchi cultivators are the short harvest season and an even shorter post-harvest shelf life, which makes it essential to have a high quality and responsive logistical system for getting the crop to market quickly. A shortage of cold storage processing and canning facilities has led to post-harvest losses of as much as 50 %, particularly during bumper seasons. Poor road conditions and transport bottlenecks, including unregulated truck prices, compel farmers to sell their produce at cheap rates in the local markets, and an absence of refrigerated transport has meant that very little of the produce can be marketed outside Bihar or exported. Lack of information on (and shortage of) quality seeds, efficient production techniques, limited availability of finance the long gestation period of the litchi tree (7 years to full maturity) further constrain expansion.

The strong potential for the industry is evident from the rapid growth in output that has taken place in the absence of public or institutional support. Well targeted support could accelerate growth and productivity through improved infrastructure, and an improved investment climate.

- ◆ **Regulatory burden.** The regulatory burden appears higher in the poor climate states. For example, SMEs receive factory inspections twice as frequently in the poor climate states (9.5 visits per year on average) as in the best climate ones (5.2 visits).
- ◆ **Power infrastructure.** In the poor climate states, 73% of SMEs have captive (self-owned) power generators, whereas in the best climate states the figure is 31%, reflecting more severe power supply problems in the poor climate states. For SMEs the cost of own power generation is twice that of power from the public grid.
- ◆ **Industrial relations and regulations.** Problems with having more workers than firms want is widespread, and reflects heavy regulation of labor markets. In poor IC states (UP) all

surveyed firms indicated overstaffing due to labor regulations and political pressure not to lay off workers. In good IC states over-manning was less severe, and in some instances related to hoarding labor in anticipation of growth in future output demand.

These differences have real consequences for the costs firms face and their business competitiveness. Firms in Uttar Pradesh, for example, are estimated to face an additional cost burden of around 30% arising from higher infrastructure and regulatory costs as compared with good IC states. One consequence is that states with a weak IC enjoy less growth and have seen less poverty reduction than those with a good IC.

Unified Bihar had a long history of state-sponsored industrial development supported by the Government of India in the mineral rich southern

BOX 2.4 FACTORS INFLUENCING THE INVESTMENT CLIMATE

Evidence based on standardized surveys suggests that the investment climate helps to explain differences in investment and growth performance across countries and regions. China, Thailand, Malaysia and India have been able to benefit tremendously from greater openness to trade and investment flows. The quantity and quality of investment flows to a country or state depends upon the returns that investors expect and the uncertainties around those returns. Three interrelated components shape investor expectations:

1. Macro level issues concerning economic and political stability and national policy towards foreign trade and investment - fiscal, monetary, exchange rate policies.
2. The efficacy of the regulatory framework related to the issues of entry or starting a business, labor relations and flexibility in labor use, efficiency and transparency of financing and taxation, and efficiency of regulations concerning the environment, safety, health, and other legitimate public interests.
3. The quality and quantity of physical and financial infrastructure, such as power, transport, telecommunications, and banking and finance. Entrepreneurs often cite infrastructure bottlenecks—power reliability, transport time / cost, and access and efficiency of finance—as key determinants of competitiveness and profitability.

Survey results in India point to several factors that enhance or harm the competitive position in international markets. India's large market size, low labor costs, and abundance of skilled and educated workers are major strengths, and clearly it is potentially competitive in a range of labor intensive industries. But in practice this advantage is partially offset by infrastructure bottlenecks, and India's foreign investment flows are low compared to China, Brazil, or Thailand. Three elements of India's IC drive this result: (i) the lack of smooth operating labor and capital markets to facilitate firm entry and exit procedures; (ii) the lack of availability of quality infrastructure services to reduce per unit costs of production and transport; and (iii) the burden of the regulatory environment and corruption on firms. Excessive regulation of firm entry and exit, through higher requirements on the number of permits and clearances, means firms face more time and expense to start a firm. Bankruptcy procedures are outdated and ineffective, making them very cumbersome and lengthy. Excessive regulations over industry hiring and firing of workers, and on the use and transfer of land are other factors.

Source: World Bank, *Improving the Investment Climate in India*, 2002.

part of the state. Good transport linkages and abundant raw materials led to the development of the iron and steel industries, other private investors located there, technology institutes were founded, and southern towns, such as Ranchi and Jamshedpur, became the industrial centers of Bihar as well as India (see Box 5.2). However, very little of this affected north Bihar and one result is that no major state-sponsored industries or institutes are to be found in Bihar today.

Although Bihar was not included in the CII-WB sample survey, some of its conclusions seem relevant for Bihar which also shares certain characteristics with neighboring Uttar Pradesh. Besides, further survey evidence illustrates Bihar's comparative circumstances. The 55th NSS round in 1999-2000 included a survey of private sector perceptions of the main impediments to business operations in Bihar, from which some indicators can be drawn. Thereafter, a comparative study published in 2002 included all states and union territories, covering a broad range of social, economic, environmental and institutional conditions.⁴ To this can be supplemented anecdotal evidence from discussions with businessmen in Bihar to facilitate comprehension of the main IC problems and issues.

In terms of the physical and institutional environment, Bihar ranks the lowest among all of India's states and union territories, even below Orissa and Jharkhand. For most other IC indicators such as penetration of infrastructure, financial systems, and workforce quality, Bihar is ranked at or close to the bottom. While this could be partly attributed to historical reasons, which have been aggravated by the state's bifurcation, the fact is that even in its undivided form, Bihar has tended to be ranked at the bottom. There are several explanatory factors, with important policy implications, that fall into three main categories — infrastructure, factor markets and governance:

Inadequate infrastructure to support industry and commercial services

- ◆ **Power.** High unit costs, large T&D losses, and low collection rates have created high unit costs of power supply in Bihar. The supply quality is also poor and irregular, with frequent breakdowns and heavy fluctuation. Hence, the majority of industrial units in Bihar have captive power (as in Uttar Pradesh) which is not only costlier but also reduces cost competitiveness.
- ◆ **Road connectivity.** Bihar has relatively low road penetration despite its high population density, with only 77 km total road length per 100 sq km, compared with 169 km in Orissa, 118 km in Tamil Nadu, and 97 km in Uttar Pradesh. A small proportion of Bihar's poorly maintained roads are surfaced — 50% versus Gujarat (90%), Tamil Nadu (77%), and the national average (60%). Nearly 70% of inhabited areas are not connected by motorable roads, which is the highest percentage in the country. Thus firms operating in Bihar incur delays and significantly higher transport costs, compared to other states, in some cases making it prohibitively expensive to access markets outside Bihar.
- ◆ **Telecommunications.** Bihar has the lowest telephone density in India, with 0.93 telephones per 100 persons; four times lower than the national average. Only 2.2% of all households in Bihar have a telephone (compared to the national average of 9%), and only 40% of villages in Bihar have public telephone access. Internet facilities are highly limited.

Weakness of local factor markets

- ◆ **Financial services and capital markets.** Bihar appears to have one of the country's least developed financial sectors, due to both demand and supply factors. The NSS survey of private sector perceptions identified weak capital markets as the major impediment (31% of respondents). Additionally, there is considerably low household account usage: only 21% of all households use banking services, as compared to 73% nationally. A high incidence of poverty and a predominantly rural population clearly contribute to this. But banks in Bihar also have higher depositor numbers per branch and exceptionally low credit to deposit ratios despite fairly high savings rates, thereby reflecting the banks' perception of high risk and a general lack of quality lending opportunities in the state.⁵ Hence, financial services in Bihar are relatively underdeveloped, more expensive, and often unavailable, particularly in rural areas. One consequence is that India's poorest state is a net exporter of capital.
- ◆ **Labor markets.** Bihar has abundant unskilled manpower which it supplies to many other states through out-migration, including season-

Prime Minister Nehru's industrial policies after independence called for the development of large-scale industries aimed at establishing heavy industries near raw material supply centers, and developing an effective national infrastructure network to transfer materials to other industrial areas. The Chhotanagpur plateau in south Bihar was identified as an important investment destination due to its rich mineral resources and existing transport links to industrialized Calcutta. Large industrial units, such as the Tata Iron and Steel Company, were already operational in this area and India's industrial policy led to further state-sponsored and private industrial development. Technology institutes were also founded there, and southern towns like Ranchi and Jamshedpur became the industrial centers of Bihar.

A distinct industrial pattern thus emerged in Bihar in the 1950s, which had far-reaching consequences for the process of industrialization in the state. First, industrial units and infrastructural facilities were mainly concentrated in the mineral rich areas of southern Bihar. Second, as a result of emphasis on investment in heavy industries, state-sponsored agro-industries did not develop in the Gangetic region of north Bihar. Finally, the industrial centers of south Bihar remained isolated pockets of industrial growth, and had little impact on developing links to industry in north Bihar, which was not as well endowed with mineral resources. The bifurcation of Bihar and Jharkhand has thus left the new Bihar state with virtually no major state-sponsored industries or institutes.

al and long-term labor movement to Haryana and Punjab. Moreover, labor costs are relatively low: average annual money income of factory workers in 1998 was 25-35% lower than most other states. However, skilled manpower is relatively scarce, and is becoming more so with persistent low literacy rates, out-migration of skilled labor, and students seeking quality education outside the state. Labor disputes also contribute to the risks and quality of labor in Bihar: the state recorded the fourth highest number of man-day losses due to disputes in India in 2000.

Governance

- ◆ **Law and order.** Official crime statistics suggest that Bihar does not rank far above the other states. Though recording the third highest number of kidnappings, abductions and dacoities, it is still below India's per capita average in 1999.⁶ Four factors suggest that law and order issues are far more serious than what these statistics reveal. First, the national and local perception of criminality in Bihar appears to be very different. Many people question the veracity of official statistics, and perceive abduction in Bihar to be a thriving industry. Second, extortion and abductions appear to be disproportionately directed at professionals — doctors, businessmen, traders, although this cannot be statistically verified. Third, surveys indicate that concern over law and order issues in Bihar is a significant deterrent to investment. Finally, informal

discussions in the state suggest that security costs incurred by businesses in Bihar — for security personnel, protective structures, and “protection money” — are higher than those paid elsewhere, and have been rising as a proportion of total costs over time.

- ◆ **Political support for private investment.** Bihar has not been proactive in courting private investment or articulating a development strategy and “vision”. Thus, the government does not have an investment promotion council, conveying a lack of concern about fostering and protecting private investment.

Despite these serious constraints to private sector activity and investment, there are some instances of success in Bihar which demonstrate that, given the right opportunity and business environment, entrepreneurs in Bihar can be successful and generate thriving businesses. The Bihar State Cooperative Milk Producers' Federation (COMFED) is one example, and the litchi industry, discussed earlier (see Box 2.3), is another. A closer examination of such successes will explain the factors responsible for their strong performance.

COMFED has developed into a profitable and growing business since its creation in 1983. It has a horizontally and vertically integrated structure, undertaking a full range of dairy activities for its members, including upgradation of milk production technology, animal health, procurement, storage and processing, and basic information on dairy farming techniques. COMFED has diversi-

fied its product portfolio, and its marketing network now extends beyond Bihar and Jharkhand to Assam and West Bengal. Its membership has risen from 66,000 households in 1987-88 to 213,000 households in 2002-03, with cooperative clusters in two-thirds of Bihar's districts. The annual turnover has reached around Rs. 90 crore.

The success of COMFED against the backdrop of Bihar's challenging IC provides some lessons that may yield useful policy insights. These include:

- ◆ Professional management was allowed to focus on viability and long-term profitability. The new management, with a clear tenure, placed the company on a solid growth path, bringing in technology and know-how from dairy cooperatives elsewhere in India.
- ◆ Absence of political interference and independence from the secretariat in day-to-day functioning allowed the company to focus on business requirements without diverting time, energy, and resources to an overbearing regulatory authority. This required both political leadership to deflect interference, and strong professional management to minimize these costs.
- ◆ The horizontal production base and vertical integration of activities supported broad membership and participation, without being top heavy and overburdened by an apex organization.⁷
- ◆ Priority was placed on sustaining the financial incentives of members with timely and regular payments to producers, and attractive procurement prices, even during the lean months. COMFED's procurement prices are at par with the federations in Punjab and Uttar Pradesh.
- ◆ The social composition of the membership is diverse and has grown without being hindered by caste, focusing on services, work culture and incomes rather than on narrow social and political interests. A large proportion of members consist of women, over half of whom belong to the backward castes, and another 9% to scheduled castes.

These factors reaffirm important elements in the IC survey results. COMFED was able to overcome infrastructure constraints and build on Bihar's comparative advantage in primary production through

production "nodes" where low-cost private infrastructure could suffice, such as milk storage facilities and mobile cold storage for artificial insemination services. COMFED's technology was built on available labor skills (although outside management was brought in), and members' credit requirements were kept low through prompt payment. Perhaps most importantly, COMFED had political support, and a minimum of bureaucratic or political interference, which facilitated entrepreneurial talent to take root and thrive.

Strengthening Economic Performance⁸

Bihar faces challenges that are more severe than those in many other states due to its history, geography, weak infrastructure, politics and institutional limitations. The resultant costs of such constraints have been low growth performance and a high incidence of poverty. Improving growth performance is a long-term challenge that will require support from the central government, particularly in areas where Bihar's own capacity is severely limited. Annual flood control and interstate infrastructure are needed to improve connectivity to national markets. The state government can do a great deal to improve growth prospects in the near and medium term.

Building on the above analysis, the most critical feature the state needs to strengthen in order to improve growth is the delivery of core public services. Chief among these is basic infrastructure, particularly in rural areas, and the provision of basic law and order. The key infrastructure services in which the private sector cannot substitute public delivery include road and water management, especially for boosting investment and output in agriculture, agro-industry, and related services such as transport, storage, marketing, etc. The public sector has an important role in basic capital investment and maintenance of large-and medium-scale water management systems. Private and community management of small-scale and feeder systems has been effective where communities have organized themselves with low bureaucratic or political interference. Similarly, public initiatives in road construction and maintenance have yielded large social and commercial benefits. Of course, effective water management and road transport services require efficient resource appropriation, allocation, and supervision, backed by strong administration

BOX 2.6 POWER SECTOR IN BIHAR

Poor quality of supply and high levels of technical and commercial losses characterize the power sector in Bihar. Losing most of its generating capacity after bifurcation, Bihar now generates only 10% of its power requirement and nearly 90% is purchased from the National Thermal Power Corporation (NTPC) and the National Hydro Power Corporation (NHPC). Among the states, the Bihar State Electricity Board (BSEB) owes the largest amount to the central power utilities. The performance of BSEB is further complicated by transmission and distribution losses estimated at 45-50%. Dual line systems do not exist in the state; hence a point breakdown collapses the entire grid. BSEB's commercial losses are estimated at 20-25%, mainly due to the problems of billing, metering and classification of consumers. Only 20-25% of domestic and commercial consumers are metered, and of these, only about 25% of the meters function. The average tariff is about 200 paise/kwh, far below the average cost to the BSEB of about 351 paise/kwh, with high subsidies to agriculture and commercial users, but higher tariffs for industrial users. Around one-fourth of BSEB's consumers are industrial, of whom about 90% are metered.

The GoB and the BSEB plan several reform measures. A Tripartite Agreement has been signed between GoB, Gol and the RBI for a settlement of BSEB dues. A Memorandum of Understanding (MoU) was also signed in September 2001 between Gol and GoB under the Accelerated Power Development Reform Programme (APDRP). The MoU sets out general policy and reform guidelines. Under the Gol's special support package for Bihar, Rs. 330 crore is to be granted to the Power Grid Corporation (PGC) for improvement of transmission network in Bihar over the next few years.

and project implementation. Chapters 3 and 4 focus on strengthening fiscal performance and public administration.

One implication of this for Bihar is the need to reduce government activities in non-essential areas, improve the management of public resources, and focus service delivery on core areas where government leadership is essential. This means withdrawing the government's involvement in low-priority activities, especially those where the private sector can deliver more efficiently. The government's role in Bihar should be primarily to identify essential public services and to prioritize activities. In agriculture, for example, this could include deregulating seed distribution to improve farmers' access to high-quality and reliable supply of seeds and agricultural inputs through competitively priced private channels. On the other hand, the government needs to provide greater support to agricultural research and extension services; it must identify appropriate regulatory norms and ensure that market growth and necessary restructuring are not impeded. There should also be efforts to reduce labor market regulations that bind employers to uneconomic practices and adversely affect small and medium enterprises. Similar efforts are needed to identify the main constraints in the capital markets and improve their functioning.

In the power sector, new delivery models could effectively expand service provision to rural and urban areas through private providers or coopera-

tive arrangements. This could eliminate supply bottlenecks and reduce the very high losses and subsidy costs currently being incurred by the Bihar State Electricity Board (BSEB). The state (and national) government needs to undertake institutional, regulatory, subsidy and tariff reforms to facilitate new modes of service delivery, drawing on a range of technologies and organizational arrangements that engage new players — ranging from reforming the BSEB and privatized distribution entities to new private entrants, cooperatives, and non-governmental service providers. There has been some promising experience with low-cost delivery mechanisms for rural power in India and elsewhere in the world. This has included decentralized models with considerable community-level involvement, such as in the rural electricity cooperatives established in Bangladesh. These could prove effective in Bihar and merit consideration.⁹

It is also necessary to urgently improve the delivery of essential social services and to strengthen investment in basic human capital for Bihar's long-term growth and economic well-being. There is considerable evidence to suggest that under-investment and weak service delivery in education and health is detrimental to economic development. This issue is examined in depth in Chapter 5.

The other basic public service needed for improving growth and investment in Bihar is strengthening of governance, more specifically guaranteeing law and order. This fundamental role in guarantee-

ing security is essential for markets to function, commerce to take place, and business contracts to be enforced. While the problems of governance occur everywhere in India and internationally, their scale in Bihar warrant much stronger government leadership in guiding convergent effort, together with civil society, to identify ways for improving law and order, as well as bringing greater transparency in the government itself. There is much to be learnt from elsewhere in India about efforts to improve law and order, and to reduce corruption. For demonstrating public priority in reform efforts, and for fresh strategic thinking, an empowered committee would be an important mechanism towards strengthening law and order, formulating policy options, examining national and international experience, and engaging community leaders and civil society in open public discussion.

A final recommendation for strengthening the IC in Bihar is to ensure that the government is fully committed to creating an enabling environment for private enterprise and entrepreneurship. This could start with articulation of a strategy for strengthening the IC, supporting private enterprise and economic development in the state. This requires strong political support for private investment. As an example, one step would be to establish an Investment Promotion Council, as most other states in India have done. Other means to develop investor outreach and ways to demonstrate responsiveness to investor concerns can include establishing a group of experts from around India to examine and develop Bihar's industrial policy and investment regime with a view to updating them, making them more investor friendly, and drawing on best practices from elsewhere in India and abroad.

Notes

¹ The data should be treated cautiously: growth is seen from a very low base and has been highly irregular, with questions of data consistency, suggesting statistical unreliability.

² Similarly low levels are reflected in data on the total number of projects (both private and public) that have been completed (i.e. which have started commercial production) from 1990 till May 2000. Unified Bihar accounted for 3.5% of the total and most of this appears to have been in Jharkhand, as data on the number of Industrial Entrepreneur Memoranda (IEMs) suggests. Between 1990 and 2000, 78% of the value of IEMs were for projects in Jharkhand, and since 2000 IEMs for Bihar have declined to virtually zero.

³ This section draws primarily on World Bank consultants and analysis prepared for the Planning Commission sponsored *Bihar Development Report (2003)*.

⁴ Bibek Debroy and Laveesh Bhandari (2002), 'How are States Doing?' 2002, by Indicus for the Confederation of Indian Industry.

⁵ Bihar's credit deposit ratio with commercial banks was 21% in 2001, as compared with UP (28%), Orissa (40%) or more developed states such as Maharashtra (86%) and Tamil Nadu (91%). (Source : Reserve Bank of India).

⁶ Statistics on IPC crimes also show that per 100,000 people Bihar is well below the national average, and less than half the rate of Delhi, Rajasthan, Kerala, Gujarat and Madhya Pradesh. Left wing extremist groups are active in Bihar, but cause much less damage to property than most other states with active insurgencies.

⁷ Cooperatives have generally had a checkered history in Bihar, failing in the past under large apex organizations that were unresponsive to base membership needs.

⁸ This chapter does not rigorously examine sectoral growth strategies (e.g. industrial priorities, tourism potential, agro-processing potential, etc.), but focuses on basic public service priorities in strengthening the environment for growth. The Planning Commission sponsored *Bihar Development Report* offers more sector-specific analysis.

⁹ See *India: Rural Access to Electricity*, South Asia Energy and Infrastructure Unit, The World Bank, 2003, for a discussion of rural electrification policies and experience internationally, and their relevance in the Indian context.

STRENGTHENING PUBLIC FINANCES

A high quality of public finance management — covering revenue mobilization, expenditure allocation and management, and debt management — is central to the government’s development effort. Concern over the deterioration in public finances, at both the national and state levels, has increased during the past decade as spending deficits have worsened, debt has increased, and the financial resources available for public investment to support growth have dwindled. Fiscal stress and weak linkages between expenditure and social outcomes are factors that undermine education and health service quality in Bihar. Linking public resources to improvement in social outcomes, and increasing targeted spending on road improvement, schools, public health clinics, rural electrification etc., are necessary for achieving Bihar’s development objectives. An important part of the development strategy is to improve efficiency in current resource use, mobilize state resources more effectively, and explore ways to attract greater financial resources into Bihar, through public and private channels, including central government schemes, foreign agencies, and investors. This is a major challenge not only for Bihar, but also for the other states as well as the central government. The problem of state finances in the light of recent fiscal trends in Bihar, and the potential ways to strengthen resource management are discussed here.

Fiscal Performance

Fiscal challenges facing Indian states

Fiscal stress is a problem that many states face. As stated in the RBI’s 2004-05 report on State Finances,¹ the gross fiscal deficit of states has risen in the second half of the 1990s and continues to remain very high (5.1% of GDP in 2003-04 RE estimates). More than half the gross fiscal deficit is caused by the rising revenue deficit, as states have

had to borrow additional resources to cover the gap in revenue expenditure. Rising revenue expenditures have been due largely to the rise in interest payments and wage and pension obligations of the states. State pension expenditures have on average increased annually by 24% between 1993-2003, far outpacing the growth of state revenues. Interest payment expenditures have increased from 13% of revenue receipts in 1990-91 to nearly 25% in 2003-04(RE), as the cumulative cost of rising debt cuts deeper into available revenues. In most states this has been aggravated by declining revenue mobilization, including poor returns on investments in public enterprises, resulting in higher subsidies and mounting losses.

Deterioration in state finances is a national problem. A major concern is that the high rate of public borrowing (by the center and the states) will slow down economic growth. A second concern is that the erosion of public investment in economic and social services will impede efforts to reduce poverty. The central government has the onerous task of reducing fiscal pressure, which the recent Fiscal Responsibility and Budget Management Act, 2003 (FRA) aims to address. Equally, major reforms are needed at the state level. In fact, several initiatives are underway to help states address the fiscal crisis. In an effort to support state-level fiscal reform, the center has formulated performance-based programs

TABLE 3.1 DEFICIT INDICATORS OF STATE GOVERNMENTS

	Average 1990-91 to 1991-92	2003-04 RE
Gross fiscal deficit/GDP	3.1	5.0
Revenue deficit/GDP	0.9	2.6
State debt/GDP	19.4	28.8

Source: RBI State Finances 2002/03, Annual Report, Aug. 2004.

with financial incentives. The State's Fiscal Reform Facility (SFRF) provided additional revenues to the states that reduced their ratio of revenue deficit to revenue receipts: the Accelerated Power Development and Reform Program supports power sector reform to prevent large financial losses; and the Debt Swap Facility supports restructuring high-cost state debts with lower-cost instruments to reduce the debt burden. The SFRF was established under the Eleventh Finance Commission's award and its operation ceases in 2004/05. The Debt Swap Facility also ends in 2004/05. These reform facilities have been replaced by the Debt Relief Facility (DRF) recommended by the Twelfth Finance Commission. The DRF seeks to restructure state debt by reissuing outstanding GoI loans at a lower interest rate of 7.5% and provide debt write-offs linked to the reduction in states' revenue deficit. Access to the facility is contingent on states enacting Fiscal Responsibility Legislations and a Medium Term Fiscal Program of their own that seeks to eliminate the revenue deficit by 2008/09. Such initiatives have helped prioritize national fiscal reform. However while the center can and should support reform efforts, the major burden of fiscal adjustment still falls on individual state governments who must

develop a fiscal reform strategy with a detailed implementation plan.

Bihar's fiscal challenges

The new state of Bihar inherited major fiscal problems which persist. These include large fiscal deficits, a heavy and growing debt burden, imbalances in expenditure allocation, and institutional shortcomings in expenditure management and budget implementation. These were compounded by the separation of Jharkhand from Bihar, creating a division of staff, assets and liabilities, and adjustments to the state's changed resource base.² Though the government has responded to the fiscal crisis with measures such as new taxes to improve revenue performance and steps to reduce losses from defunct public enterprises, the fiscal challenges facing Bihar remain daunting.

The new state of Bihar has a long history of fiscal and revenue deficits which doubled since 1999, excepting 2001-02 when there was a sharp decline. Table 3.2 and Figure 3.1 show Bihar's recent fiscal performance, but the data must be interpreted with caution for the post-bifurcation period in particular.³ Three trends are alarming. First, since the 1980s the

TABLE 3.2 FISCAL SUMMARY (1985-86 TO 2003-04 - % GSDP)

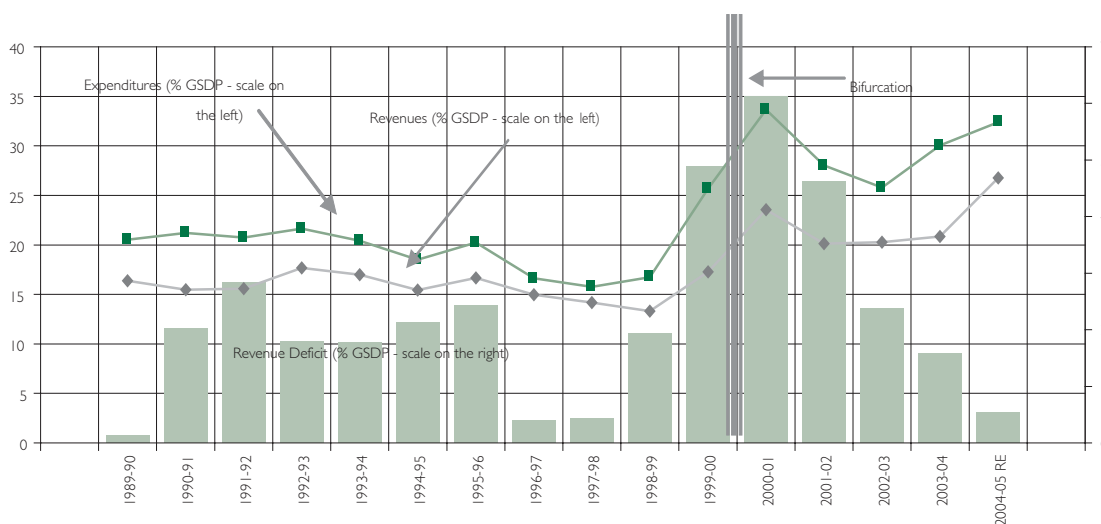
	1985-1990	1990-1995	1995-2000	2000/01	2001/02	2002/03 (RE)	2003/04 (BE)
Total Revenue	15.62	16.29	15.75	18.94	19.3	20.54	21.80
Own revenue	7.27	6.54	6.28	6.22	5.1	5.51	6.45
Tax	3.91	4.34	4.34	4.88	4.6	4.93	5.71
Non-tax	3.36	2.20	1.95	1.34	0.9	0.57	0.75
From center	8.35	9.75	9.46	12.72	14.2	15.03	15.35
Shared taxes	5.76	6.61	6.82	10.94	12.1	11.91	12.37
Grants	2.59	3.13	2.64	1.78	2.1	3.12	2.98
Total Expenditure	19.40	20.27	19.79	27.07	24.4	29.26	28.92
Revenue	15.21	18.44	17.89	23.87	21.9	24.90	24.24
Capital	4.19	1.83	1.90	3.20	2.5	4.36	4.68
Capital outlays	2.70	1.20	1.25	1.89	1.5	2.94	2.92
Revenue deficit	0.41	-2.16	-2.14	-4.93	-2.6	-4.36	-2.44
Fiscal deficit	-3.78	-3.98	-4.05	-8.13	-5.1	-8.72	-7.12
Interest payments	2.05	3.43	3.56	4.43	5.2	5.71	5.72
Primary deficit	-1.74	-0.55	-0.48	-3.70	0.1	-3.01	-0.41
Total deficit	31.26	35.57	37.96	43.04	19.3 5.1	60.4	n/a

Note: Capital expenditures include capital outlays and net lending for PSUs..

The debt figure for 2001/02 is RE and for 2002/03 is BE.

Source: RBI for 1985-1998; GoB for 1998/99 - 2003/04.

FIGURE 3.1 FISCAL PERFORMANCE



revenue balance has been consistently negative. Second, both the fiscal and revenue deficits have grown over time to roughly twice their level in the 1990s, increasing Bihar’s dependence on borrowed funds. Third, there has been a discreet jump in the fiscal deficit since bifurcation, indicating that structural changes have hurt Bihar’s fiscal health. Relative to GSDP, post-bifurcation expenditures surged from about 20% to 28%, while revenues rose by half this share, from 16% to 20% of GSDP. Bihar’s deficit is unsustainable at this level, particularly if growth remains below 5% per annum.

The main consequence has been a steady accumulation of debt, and a large debt service burden on public finances. Between 1985 and the year of bifurcation (1999-2000), debt rose from approximately 30% to 42% of GSDP, and has since jumped to 61%. The debt inherited from the pre-bifurcation period was divided largely on the basis of share in that debt, and the new state of Bihar ended up being burdened with roughly 75% of the debt while accounting for only 60% of total production, and with a much lower per capita income than Jharkhand. Interest on debt increased from 11% of revenue expenditure in the late 1980s to 26% in 2003-04 (before declining to 21% in 2004/05(RE)), going up as a share of GSDP to nearly 6%, and accounting for nearly 40% of the total increase in public expenditure.

Bihar has also accumulated significant contingent liabilities, namely outstanding government guarantees to public enterprises, and pension and provident funds liabilities to civil servants. Outstanding

guarantees are not as large as compared with many other states, totaling about Rs.353 crore on March 31, 2003 or less than 1% of GSDP. The largely moribund public enterprises sector also no longer generates contingent liabilities. On the other hand, pension liabilities are significant and growing rapidly, while large arrears continue to accumulate coupled with extensive litigation. The database for pension fund and provident fund liabilities is inadequate for forecasting future obligations, compounding the difficulty of planning future expenditure.

Non-interest expenditure has been curtailed: while core social services have been proportionately maintained, and economic services have declined sharply. Since the mid-1980s expenditure on social services has remained at a little over 30% of total spending (Table 3.3). By contrast, the share of general services, which include debt service and pension expenditure, has grown steadily from about 25% to 43% of total spending, and economic services have been cut by over half to 16%. Irrigation and rural development spending has virtually halved, from 23% to 10% of total spending. Expenditure on agriculture has fallen even further by nearly two-thirds to under 3% of spending, and other economic services (power, transport, etc.) have fallen by about 50%. The maintenance of public spending on social services in contrast to economic services in part reflects the difficulty of cutting salaries, which comprise 80% of social services as compared to only 16% of economic services. Funding from central ministries and external agencies also acts as a hedge, protecting against cuts⁴ in the social services sector.

Discretionary expenditure has also been curtailed, compromising the quality of government spending. Increasing public salary and pension costs have also prevented other important expenditure. Together with interest payments, outlays on these “non-discretionary” areas amount to nearly 80% of total revenue expenditure and severely limit discretionary expenditure. Pension is the fastest growing expenditure category increasing from about 4% of total expenditure in the late 1980s to 13% of total expenditure at present. Salaries have declined from approximately 50% of total spending in the late nineties to between 30-35% in the recent period.

Subsidies to the power sector have increased, but subsidies to other sectors appear to be relatively low. The power sector is heavily dependent on public subsidies, and this has increased since bifurcation: in 2002-03 approximately Rs.800 crore (about 1.4% of GSDP) was allocated to cover losses.⁵ In contrast, other subsidies appear to be limited. For instance, food subsidies through the public distribution system (PDS) are limited as the off-take of grain from the Food Corporation of India (FCI) is meager. Net lending to public enterprises (PEs) other than the state electricity board is also negligible. Bihar’s public enterprises (PEs) are financially unsound. Of the state’s 54 PEs, 45 are loss making, a number are not functional, and many have stopped paying wages although workers have yet to be formally removed from the payroll. Some, like the State Road Transport Corporation, continue to operate with quasi-legal status, though without formal salary payments or book keeping. Bihar’s fiscal crisis has reduced subsidies to these PEs to the minimum, while litigation for back wage payments, clearly unaffordable, is stuck in the courts.

One consequence of fiscal stress has been a precipitous drop in capital outlays. The share of plan expenditure has plunged: from 50% of total spending in the mid-1980s to less than 20% in recent years. Capital spending (excluding net lending) fell from nearly 20% of total public spending in the mid-1980s to below 5% in the mid-1990s before increasing irregularly between 5-10% of spending in recent years (Figure 3.2).

Inadequate spending on non-wage operations and maintenance (O&M) is likely to have compromised the quality of public spending. Data on operations and non-wage operations and maintenance spending is not available, but evidence

TABLE 3.3 COMPOSITION OF PUBLIC SPENDING (% SHARE OF TOTAL EXPENDITURE)

	1985-86 to 1987-88 (average share)	2002-03 (actual) to 2003-04 (RE) (average share)
General services	23.3	43.0
Social services	32.3	34.3
Education	16.8	24.2
Health	8.0	4.0
Welfare programs	4.8	3.7
Others	2.7	2.4
Economic services	37.0	15.6
Agriculture	6.8	2.2
Rural	9.9	5.8
Irrigation	13.4	4.7
Power	0.7	0.1
Transportation	3.6	1.8
Others	2.7	1.0
Grant-in-Aid	0.3	0.0
Net loans by state	7.1	7.1
By economic classification ^{a/}	1990-91	2002-03
Interest payments	15.4	25.0
Salaries	49.3	37.0
Pensions	3.8	16.7
Other	31.4	21.3

Note: a/ Economic Classification for 1990/91 and 2002/03 due to data availability constraints. General services include interest payments.

Source: GoB, World Bank Staff estimates.

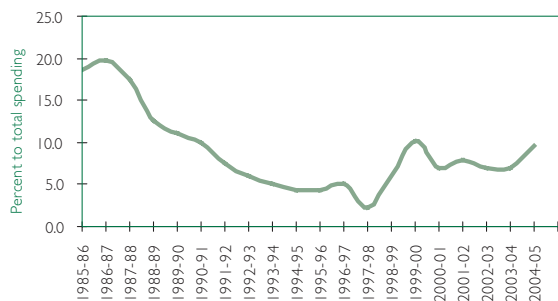
points to their sharp decline, for example inadequate building repair, availability of chalk in schools, medicines for health clinics, etc. whereby not only does the value of public assets rapidly erode, but the quality of public services is also seriously affected.

Bihar’s revenue mobilization is very low, not dissimilar to other states over the 1990s but its performance over the 1990s matches other states. Bihar’s own revenues averaged 7% of GSDP in the late 1980s, but have registered a downward trend over the 1990s to an average of about 6%. This is low when compared with most other states, but not surprising given Bihar’s income levels and the predominance of the agricultural sector. Behind this trend has been the rise in tax revenues relative to GSDP, and the decrease in non-tax revenues due to the declining contribution of mining royalties (Figure 3.3). Tax revenues proportionately to

GSDP have grown faster than GSDP itself, and their growth performance has matched the other states, albeit from a very low base. Post-bifurcation, Bihar's predominant agricultural and rural orientation suggests that the potential for revenue mobilization, especially in the short term, is quite limited.

The large transfers of funds by the Finance Commission from the center to Bihar have helped offset the state's weak revenue performance. The state has been a major beneficiary of the Eleventh Finance Commission's efforts to strengthen equity considerations across states while allocating shared revenues. Bihar's revenue sharing coefficient was raised to 0.146 by the Commission, and devolved revenues rose from about 7% to over 12% of GSDP. This has allowed Bihar to maintain and expand spending, but has also made the state very dependent on the center for finances. Bihar now relies on the center for about 75% of its total revenues, compared to 60% in the 1990s. The Twelfth Finance Commission has provided continued central government support to Bihar. Bihar is entitled to Rs.7,976 crore of special purpose conditional grants for its health and education sectors and maintenance of roads and public buildings among others over the period 2005-10. The eligibility condition for the following year is that the state spend its prescribed normative expenditure on these sectors in the previous year as well as the additional grants assigned by the Twelfth Finance Commission. However, the state's utilization of central assistance has been very poor. The state

FIGURE 3.2 BIHAR: INVESTMENT EXPENDITURE SHARE



will also benefit from central tax devolution of Rs. 67,000 crore over the same period. The gains from tax devolution are a little lower because Bihar's share in central taxes has declined from 14.6% to 11% reflecting the bifurcation of the state. The Twelfth Finance Commission has also announced a debt relief scheme which is discussed later in the Bihar context.

In response to the fiscal crisis, the government has taken measures to strengthen revenue performance and reduce low-priority expenditure. In the FY 2002-03 several additional revenue measures (ARMs) were implemented: increases in diesel and petrol levies; a move from a quantitative to an ad valorem basis for electricity duty; and a multi-point levy with rebates for durable consumer goods (for which leakages have been high). The initiative to increase computerization and focus extra resources on large tax payers may also help improve tax yields. In 2002-03 tax revenues increased by 19%,

FIGURE 3.3 BIHAR: OWN REVENUE MOBILIZATION 1985-86 TO 2004-05



TABLE 3.4 POST-BIFURCATION REVENUE PERFORMANCE 2002-03

In Rs. crore	2001-02	2002-03	2002-03 share (%)	Growth
Total own revenues	2606	3022	27.5	19.1
Taxes	2334	2761	25.0	19.0
Sales tax	1413	1647	15.0	15.1
Stamp duty	304	348	3.2	31.4
Excise	239	242	2.2	4.6
Other taxes	378	524	4.6	32.8
Non taxes	469	261	2.4	-31.1
Transfers from center	7234	7946	72.4	17.0
Shared taxes	6177	6549	59.7	8.6
Grants	1057	1397	12.7	66.2
Total revenues	9839	10968	100	17.6

recovering lost ground from the first year following bifurcation (Table 3.4). The growth rate was not kept up in 2003/04, and own tax revenue declined 3% over 2002/03. But a strong recovery appears to have been made in 2004/05(RE) with own tax revenue growing by 30%. After falling initially, non-tax revenue picked up in 2003/04 growing by 18% and has maintained that level in 2004/05(RE).

The government has also initiated major steps to close loss-making PEs. One positive result of recent court rulings regarding government responsibilities towards PEs has been a new push to close moribund PEs. The state has decided to close 18 loss-making PEs, including arrangements to provide former workers with a one-time financial compensation package.⁶ Liquidation proceedings for seven PEs have been filed and approved for the other 11. This is a significant step towards cleaning up the sector, albeit late, though much more remains to be done. There is now considerable evidence from other states, and certainly internationally, for the need to ensure efficient PE liquidation, privatization or restructuring. Retirement schemes, retraining, and assistance with job search activities are also required to minimize the social costs of reducing public employment (see Box 3.1 on Andhra Pradesh's experience).

Central Government Support for Bihar's Development

Central government support is critical to Bihar's finances, accounting for close to three-quarters of its revenues since bifurcation. The bulk of this support comes through devolved tax revenues from the center. Significant support also comes through plan resources and central assistance through the

ministries. Bihar has one of the lowest utilization rates of central assistance programs which is the focus of this section. Bihar's urgent need for social and economic development makes the effective use of all public funds a fiscal priority.

Central transfers and assistance to Bihar

There are three sources of transfers from the center to the states: (a) via the devolution of shared taxes as determined under the Finance Commission (FC); (b) through plan resources determined in consultation with the Planning Commission (PC); and (c) via Centrally Sponsored Schemes (CSS) under the Government of India (GoI) ministries. Shared taxes constitute the largest source of transfers and are provided to state budgets without any conditions. The other two sources contain different conditions across programs and schemes. The FC also gives discretionary grants to select states to help finance non-plan revenue deficits. Bihar did not qualify for transfer funds to PRI bodies during 1995-2000, until after the elections in 2001 when PRIs were reconstituted.

Central assistance consists of "normal CA", distributed according to the Gadgil formula weighted towards poorer states, and additional CA, which is distributed according to each scheme and at the discretion of the Planning Commission. Thus on per capita terms, Bihar receives higher normal CA than other major states (about 55% above Andhra Pradesh and Karnataka), but less than the special category states. Over time, the share of additional CA in the total has grown under area-based schemes (e.g. the Border Development Program), targeted multi-sectoral programs (e.g. the Prime Minister's Program for Basic Needs), and reform-

BOX 3.1 PUBLIC ENTERPRISE REFORM IN ANDHRA PRADESH

Andhra Pradesh began to reform the state PE sector in 1999 after the state government concluded that public resources should not be used for activities where the private sector can perform more competitively and no compelling social or environmental reasons warrant a public presence. A quasi-independent privatization secretariat and implementation committee were established under the direction of the state, and a cabinet committee set up to vet PEs selected for liquidation, restructuring or privatization. The procedures for evaluating PE assets, preparing tendering documents for competitive bids, and evaluating and awarding bids were created.

In parallel, the state also established procedures for providing retirement payments to PE employees who would lose their jobs, as well as selective job training and placement assistance to help laid-off workers find new employment.

Between 1999 and March 2003, Andhra Pradesh successfully liquidated, privatized or restructured 31 PEs, ranging from sugar factories and fertilizer factories to agro-industry and handicraft corporations. Already Rs.175 crore in gross proceeds has been realized from the sale of assets. Over the next two years an additional 53 corporations, cooperatives, and enterprises with minority government ownership are scheduled for processing.

Several factors have contributed to these achievements, including political support from the top, creation of the Implementation Secretariat with a commitment to the program, and technical assistance to build institutional capacity and provide advice. Part of its success comes from putting in place the VRS and social safety net program to compensate employees for the loss of jobs and assist them in finding alternative employment. As of January 2003, over 18,000 employees had taken VRS during Phase I and Phase II.

based programs (e.g. the Accelerated Irrigation Benefit Program). Bihar is a major beneficiary of some of these programs.

Centrally Sponsored Schemes (CSS) are financed by the central government ministries, accounting for nearly 60% of central assistance. Most central ministries, excepting the Ministry of Rural Development, do not have a transparent formula for fixing state allocations. The state's share in their budget depends on the nature of the scheme, past expenditure, and the interest taken by the state. The funds are not part of state plans; rather the central ministries in consultation with the states formulate the schemes, and states are usually required to contribute a 25% share. The fiscal crisis facing the states has increased the importance of central assistance and CSS support. Often Centrally Sponsored Schemes are the only functional social sector schemes at the field level. States have very limited discretion to introduce changes in their design.

Some states also receive significant support from external assistance projects (EAPs), raise market borrowings, and access credit from central government institutions, such as National Bank for Agriculture and Rural Development (NABARD), Life Insurance Corporation (LIC), and Rural Electrification Corporation (REC). State capacity in

each of these varies widely. Bihar's use of EAPs has been very small relative to its size: over three years (1999-00 to 2001-02) it has accounted for only 0.8% of the total — equal to one-fifth the share of Orissa, and one-tenth that of Uttar Pradesh. Bihar's actual utilization of loans from central government institutions has also been negligible.

Bihar's overall utilization of central resources targeted for "development purposes" is among the lowest in India. This is best measured through plan outlays, which constitute CSS, CA, borrowed resources and states' own resources (but excluding EAP). Cross-state comparison shows Bihar and Uttar Pradesh ranked the lowest, spending approximately one-fourth the per capita level of the top states — Karnataka, Gujarat and Punjab (Figure 3.4). Moreover, the gap has been widening, particularly since the Eighth Five Year Plan. Bihar's actual plan assistance has grown much more slowly, and is now about half that of Andhra Pradesh, and two-thirds the level of Karnataka (Figure 3.5).

Bihar's utilization performance in centrally funded programs

Bihar's low plan expenditure is due to poor utilization of central assistance and CSS resources. Although there are examples where funds have been fully released and utilized, the track record of

many schemes and programs shows considerable under-utilization. During 2001-2003 allocations under the Accelerated Irrigation Benefits Program (AIBP) totaled Rs.250 crore, of which Rs.18 crore was actually released. The Pradhan Mantri Gram Sadak Yojana (PMGSY) or the Prime Minister's rural road scheme for rural road connectivity, which is fully centrally funded, proposed more than Rs.7000 crore for Bihar, and released funds for the first year of the scheme (2000-01). But failure to use these funds has resulted in no further releases being made subsequently. Under the National Old Age Pension Scheme (NOAPS), for distributing old age welfare pensions, census figures suggest there should have been 1.1 million beneficiaries in Bihar with annual payments of about Rs.10 crore. However in 2002-03 only 5% of this amount was spent. Under the Border Area Development Program (BADP) formula for resource allocation, Bihar should qualify for about 15% of the total pool, but is actually using only 1.4%.

The government is well aware of these problems. In 2002, the state's finance department prepared estimates of unutilized central government resources during the three-year period 1997-98 to 2000-01, showing Rs.1570 crore unspent or one-fifth the total of Rs.7700 crore in approved assistance (Table 3.5). Similar collated information on utilization of central funds under CSS is not available, but the example of the Ministry of Rural Development schemes is revealing. The state's estimates of fund utilization vis-à-vis allocations shows that 35% of central allocation or Rs.2065 crore was not released over these three years. This includes funds for important rural poverty schemes which have seriously compromised their capacity and effectiveness (Chapter 5).

This is a serious constraint on the potential resources for development available to Bihar. Unused resources from the central government allocation lapse and in some cases are transferred to states with greater implementation capacity. Even where there is no requirement of state contribution, such as food grains for mid-day meals or the BADP, Bihar has had similar difficulties drawing on the available funds. Identifying constraints and finding solutions to address them is therefore a clear fiscal and developmental priority.

Reasons for Bihar's weak expenditure performance

Poor implementation is due to systemic problems. Several issues have emerged from discussions and interviews with state and GoI officials that provide perspectives from both ends of the disbursement chain. The main reasons for administrative shortcomings in program implementation are given below and arise due to scheme design, and administrative regulations, structures and behavior that characterize Bihar.

- ◆ **Technology.** A simple but important factor is the relative lack of computerization, readily accessed databases, and information connectivity between government offices within the secretariat and between the districts and Patna. Though computerization is gradually being put in place, for example in tax administration, in general it has not kept pace with the growing reporting requirements to help secure smooth disbursements.
- ◆ **Budget timeline and scheme schedules.** Several problems with timing impede smooth program implementation, starting with the overall budget process. First, Bihar's budget is passed

FIGURE 3.4 PER CAPITA PLAN OUTLAY 2001-02 (IN RS. CRORE)

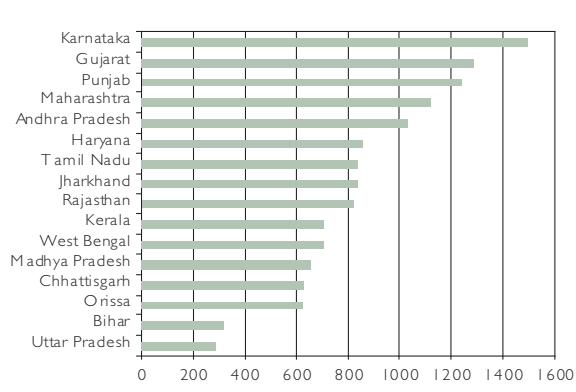
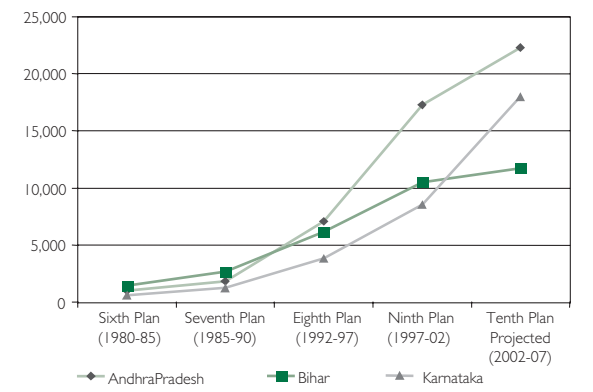


FIGURE 3.5 CENTRAL ASSISTANCE THROUGH THE PLANS (IN RS. CRORE)



in two installments: to begin with for four months and later for the full year. Hence funds are allotted in installments to districts and directorates, and implementing agencies are kept waiting for the receipt of funds. Second, the individual project cycle is another problem. The release of the second installment of project funds requires the demonstration of utilization of funds released earlier. In the case of some projects that are affected by the annual monsoon, construction cannot start until late in the FY, when it is too late to fully utilize funds. Though a carry over of funds is allowed, they are often substantially cut because they exceed the 15% limit on opening balances.

- ◆ **Procedural delays.** Serious procedural delays result from the “Rules of Executive Business” in Bihar, for which there is no parallel in GoI or other states. The rule requires all new schemes and ongoing plan schemes exceeding Rs. 25 lakh to be brought prior to the cabinet before sanctioning the finances. Plan schemes exceeding this amount must first be approved by an empowered committee headed by the Development Commissioner, then approved by the Planning Minister and Chief Minister through the CS. Further delays result if the Chief Minister also asks for it to be placed before the cabinet.
- ◆ **Excessive centralization of decision-making.** Bihar suffers from excessive centralization. Lack of delegation creates major delays and bottlenecks in project implementation. Inadequate secretariat power delegated at the field level is a systemic problem. One example is the delegation of financial power to assistant and junior engineers in rural development schemes whereby estimates above Rs. one lakh can be vetted only by executive engineers and full payment made only after the executive

engineer signs the measurement book. This seriously delays projects due to the shortage of senior engineers and prevents large volumes of rural development funds from flowing into the blocks. Some delegation of power can also help in emergency situations. For example, the empowering of district collectors to purchase relief resources without clearance from the secretariat has resulted in timely provision of emergency aid.

- ◆ **Paralysis of decision-making.** The paralysis in decision-making in Bihar is a stumbling block to project and policy implementation, especially in dealing with financial matters. Fear of being accused of financial irregularities or being implicated in criminal cases, and an incentive structure which does not reward proactive problem-solving but severely punishes impropriety leads to a breakdown of governance.
- ◆ **Antiquated procedural systems.** In some areas Bihar continues to follow outdated procedural rules that impede implementation of procurement procedures, and the schedule of rates used in the Public Works Department (Chapter 4).
- ◆ **Capacity constraints.** Extensive vacancies, and an imbalance in the staffing mix in several departments creates capacity constraints for the processing and implementation of projects. Approximately one-third of Bihar’s 533 blocks lacks block development officers, who play a crucial role in implementation. Shortages of engineers and District Development Committees (DDCs) at the zila parishad level is also acute, particularly for rural development schemes, for which the engineering staff fail to reach even one-third of the staffing norm. A

TABLE 3.5: UTILIZATION OF RELEASES UNDER THE STATE PLAN (1997-98 TO 2000-01) IN (RS. CRORE)

Assistance to the state plan	Amount approved	Amount released	Amount not availed
Normal central	5101.89	4820.89	281.00
ACA for EAP	815.67	459.49	356.18
PMGY	875.19	404.23	470.96
AIBP	710.00	361.06	348.94
SDS	125.87	75.96	49.91
APDP	21.45	21.45	21.45
Roads and bridges	71.50	8.56	62.94
Total	7721.66	6151.60	1570.06

shortage of senior staff also results from delays in promotions in several departments, apparently arising from court cases (Chapter 4).

- ◆ **Government litigation and court proceedings.** Litigation against the government takes up an enormous amount of time of government officials, often at the most senior levels. Litigation against the government ranges from pension payment and land acquisition cases to disputes with commercial contractors. The large number of pending cases prevents the normal functioning of the government in Bihar, and reflects the complexity of the judiciary-executive relations in the state.
- ◆ **Scarce budgetary resources.** In some instances the state appears unable to raise institutional matching loans, and lacks adequate internal financing to meet counterpart financing requirements. Unlike many other states which borrow from GoI corporations, Bihar has to rely to a greater extent on scarce budget resources. However, this does not appear to be the binding constraint in most programs.

These issues go beyond implementation problems affecting central assistance and schemes to deeper questions of basic administration, governance, institutions and capacity building. The relative importance of these constraints vary across schemes, departments and ministries. The next section will discuss some preliminary ideas on measures that may help mitigate the fiscal constraints in Bihar, including ways to improve utilization rates of central assistance.

Towards a Fiscal Reform Strategy

The new state of Bihar inherited fiscal difficulties, such as persistent deficits, weak revenue mobilization, and a heavy debt burden. It lost several significant public assets (e.g. minerals and mines with their associated royalties, large industry establishments with associated tax revenues, and most of the state's electricity-generating capacity). Against this backdrop, some initial important steps have been taken to address these weaknesses. Several additional revenue measures have been implemented to help shore up revenues. A Memorandum of Understanding (MoU) on fiscal reform, which aims to reduce the revenue deficit, was entered into with the GoI covering the period 2000-01 to 2004-05. There are plans to improve

electricity metering in the principal power circles in and around Patna to stem power revenue losses. A "Pension Fund" unit has been set up to review and record actions on approved and pending pension cases, help computerize pension data, and to follow up on complaints. There has also been some initial thinking on conducting a "zero-based budgetary review" to examine priority programs and projects with a view towards better public scheme prioritization and selectivity.

These measures show recognition of the serious fiscal problems confronting Bihar and the government's determination to tackle them. However, the government appears to lack a clear framework for reform: strategic expenditure priorities for development, and a program for strengthening the efficiency of expenditure. Fiscal stress and weak linkages between expenditures and social outcomes are factors undermining the quality of education and health services. Just as expenditures need to be realigned to support a strategic vision of social service delivery, a fiscal strategy is needed to address Bihar's fiscal and budgetary problems. The ideas here are preliminary and are intended to promote discussion and dialogue. A fiscal reform strategy should address: (i) development of a multi-year framework for fiscal reform; (ii) improvement of budget management practices; and (iii) upgradation of project implementation and the use of central resources.

A medium-term fiscal reform strategy

Bihar's serious resource and structural constraints require medium-term fiscal adjustment and reform. Bihar's gross fiscal deficit at 7-8% of GSDP is not sustainable under present circumstances. The current fiscal reforms appear to be ad hoc and have been taken at times of fiscal stress, without the government clearly in control. The medium-term program should link the annual budget preparation and execution to a medium-term program.

An approach that is being adopted in several countries as well as other states in India is the use of a Medium-Term Expenditure Framework (MTEF) which reflects the built-in expenditure pressures and revenue generation ability of the state. It assesses the impact of expenditure and revenue reforms that can be used as planning tools for preparing annual budgets with a three- to five-year planning horizon (see Box 3.2). A major objective of fiscal reform is to stabilize public finances, con-

BOX 3.2 MEDIUM-TERM EXPENDITURE FRAMEWORK

The Medium-Term Expenditure Framework (MTEF) is a tool for estimating revenue flows and expenditure requirements, incorporating additional revenue mobilization measures, and planning a course for corrective restructuring of expenditure towards priority areas. About half a dozen states in India have prepared MTEFs over the past few years, including Andhra Pradesh, Karnataka, and Orissa. Their fiscal frameworks incorporate several common features and objectives. In a five-year horizon that consolidates the power sector accounts with the budget, the MTEF accounts for the impact of current and planned measures: civil service restructuring to reduce wage and pensions pressures; power sector restructuring; additional tax and non-tax revenue reforms; expanded primary education and health services; and increased public investment. To promote greater transparency and public discussion, both states publish their MTEFs along with the annual budget.

serve resources for core public services, and reallocate them for development priorities. The Government of India's Medium-Term Fiscal Reform Facility (closed at the end of 2004-05) and the new Debt Relief and Write-off Facility encourages the reduction of state revenue deficits and improves fiscal management. Bihar had prepared a MoU with GoI to access the Fiscal Reform Facility. It will now be required to reformulate its fiscal strategy to meet the recommendations of the Twelfth Finance Commission to eliminate the revenue deficit by 2008-09; reduce the fiscal deficit relative to GSDP to 3% by 2009-10; and bring down salary expenditure relative to revenue expenditure (net of interest and pensions) to 35%. Formalizing a MTEF consistent with these objectives (see Box 3.3) would provide an important planning tool to underpin annual budget preparation.

An MTEF strategy for Bihar is likely to focus in the near term on fiscal gains from restructuring expenditure. Since the scope for increasing revenues is limited, the current and planned ARMs and tax administration initiatives, such as focusing resources on large tax payer compliance, are important.

An active debt management strategy is one way to focus attention on reducing Bihar's enormous debt burden. Meeting the benchmarks suggested by the Twelfth Finance Commission would make Bihar eligible for debt relief and restructuring. For Bihar the potential gains include Rs.1,926 crore of GoI loans written off and savings of Rs. 1,268 crore in interest expenditure over the period 2005-2010. From the liquidity perspective the state can gain another Rs.620 crore from restructured and deferred debt repayment over this period. The finance department should develop and maintain a debt database and forecasting capacity to identify ways to reduce debt service costs, monitor debt instruments and liabilities, including

contingent liabilities, and manage the payment stream. The Debt Swap Scheme which operated between 2002 and 2005, enabled states to pre-pay high-cost debt and substitute it with lower rate coupon-bearing small savings and open-market loans. In 2002-03, Bihar used this facility to swap close to Rs. 600 crore out of nearly Rs. 800 crore in total market borrowings. It should also explore ways to maximize swap arrangements for block loans in order to completely clear high-cost debt in Bihar's balance sheet, and explore other avenues, available through GoI such as the Twelfth Finance Commission's recommendations for debt relief and write-off. As pensions constitute Bihar's fastest growing non-interest recurrent expense, the monitoring of current and projected pension payments should also be part of the effort.

By restructuring the expenditure mix, there is potential for major improvement in the quality of public service delivery and outcomes. The common problems with expenditure allocation include:

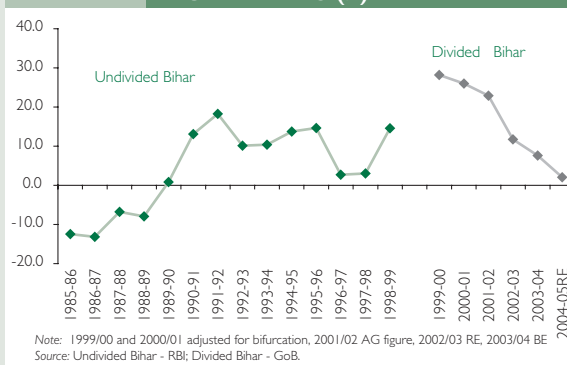
- ◆ Imbalance between salary expenditures and non-salary operations and maintenance spending. Countless examples exist: schools without chalk and blackboards, PHC clinics and refrigeration units without basic medicines, electricity generators, or diagnostic equipment, etc.
- ◆ Inadequate recurrent O&M expenditures to maintain public assets. For example, roads left without minor maintenance eventually need to be rebuilt at a higher cost; new schools are built alongside poorly maintained existing structures; and cement toilets are built and later abandoned due to lack of maintenance, etc.

Following the recommendations of the Eleventh Finance Commission, the Government of India set up a five-year facility to help states improve their fiscal performance. The facility uses conditional transfers to motivate reform. Two conditions are necessary to access the annual grants: (a) agreement with the Ministry of Finance through an MoU containing a Medium-Term Fiscal Reform Program; and as part of this (b) reduction of the “revenue deficit to revenue receipt ratio” by 5 percentage points a year, using 1999-00 as the base. Gol also created additional support through the facility for open market borrowing to cover financial costs of adjustment, for example the voluntary retirement and severance payments for downsizing public sector enterprises.

Fiscal reform programs for 28 states have been approved and facility funds released. Sizeable open market borrowing has also been approved for several states. Bihar's MoU with Gol provided about Rs. 411 crore of additional grants against which Bihar received Rs.127 crore until 2002/03.

The base year ratio for bifurcated Bihar is 34% (as per Bihar's MoU), somewhat higher than the pre-bifurcation level. It is estimated that the ratio declined from 34% in 1999-00 to 7.6% in 2003-04 (see Box Figure 3.6.) Under the facility rules, the 23% decline by 2003-04 should qualify Bihar for the facility grants for the first four years. They would confirm Bihar as having made significant fiscal improvement, although much of the improvement is due to higher transfers from the center, but also due to higher revenue mobilization.

FIGURE 3.6 REVENUE DEFICIT TO REVENUE RECEIPT RATIO (%)



- ◆ Large vacancies exist where manpower is badly needed, while in others there is excess staffing. Redeployment is limited by the need to match skills and grades, but could yield big efficiency gains.
- ◆ Budget and staffing coordination across related programs and departments. Fragmentation of responsibilities can destroy well-designed programs if departments do not collaborate. Family planning services is one such example, where delinking of primary health care and family planning extension services appears to have undermined service delivery.

Realizing these benefits is an enormous task, requiring a sound strategic foundation and analytical inputs. In Orissa's medium-term program, for example, a major staff reallocation exercise is under way after a careful review of the organization and its functioning, a civil service census, modeling of restructuring options, and development of a labor pool for staff reassignment. There is a great deal of international experience, and growing experience in several Indian states, some of which have a similar administrative design as Bihar, which may be able to provide guidance.

Public expenditure and budget management

Although this report has not reviewed budget management practices, related discussions have pointed to weaknesses in the administration of public resources — budget preparation, budget execution, expenditure supervision, accounting and audit functions. Actual budgets often differ dramatically from planned budgets in India, with costly consequences. Poor budgeting and cash flow constraints can lead to: (i) reliance on high-cost, short-term borrowing; (ii) unplanned expenditure cuts that damage high-priority social and economic programs; (iii) major delays in public investments which undermine project returns and capital efficiency; and (iv) misallocation of resources with no corrective action. The underlying issues require institutional and procedural reforms in keeping with the central budget and accounting regulations. Several Indian states have initiated public expenditure reform programs. A number of suggestions to improve budget management practices are listed here:

- ◆ **Expenditure reviews.** Better budget management systems and expenditure analysis help to improve expenditure planning and pro-

visioning, for example in pension management. Quality reviews require good information and data systems. Bihar has made some progress in improving data (e.g. on sales tax), but much progress is needed in other areas, such as payroll, pensions and debt management.

- ◆ **Zero-based budget review.** This exercise, in its simplest form, examines all expenditure functions and programs to systematically “prioritize” them so that low-priority activities can be phased out. Such analysis supports the preparation of a budget that is built bottom-upwards and prioritized, rather than created incrementally. Some initial zero-based review effort has begun in Bihar, though its outcomes are unclear, and data deficiencies suggest that more in-depth review is needed. Particularly fruitful would be a zero-based review of investment projects. In 2002-03, with technical assistance, the Orissa government reviewed 149 large infrastructure projects that exceeded Rs. 4 crore each. As a result, the government cancelled 83 projects deemed unproductive or obsolete.
- ◆ **Departmental function reviews.** An analysis of government programs shows that there are specific departments where greater efficiency can be attained. Departmental in-depth reviews can examine the organizational design, staffing responsibilities, and output so that appropriate measures may be taken to improve organizational efficiency and reduce costs. Human resource strategies can help identify manpower constraints and options for redeployment. In Andhra Pradesh, the state strategy for human resource development and departmental restructuring has included functional reviews to guide departmental reforms.
- ◆ **Procurement and financial management.** Bihar’s procurement regulations are in urgent need of revision. Reform of procurement practices and strengthening of financial management can improve transparency and accountability in government finances, as well as cost efficiency. Such procedures have been launched in several states, and new laws written to: (i) update practices; (ii) make information publicly available and not overly cumbersome; and (iii) prevent ad hoc and discretionary practices that enable abuse. In 2000,

Karnataka passed a Transparency in Public Procurement Act and created a central procurement cell in the Ministry of Finance to implement this reform program. In several states computerization and public access to information, and payment and accounting functions are important factors that help strengthen financial management.

- ◆ **Performance orientation.** Some governments are trying to radically shift the orientation of government departments and functionaries away from resource inputs (funding, supplies, staff) to outputs and, more importantly, to outcomes. Rather than lay stress on the number of schools built or staffed, the focus is shifted to the quality of service delivery as measured through literacy, enrollments, attendance, and test results. But achieving this shift is a Herculean task. Over the last three years, the Government of Andhra Pradesh has, through seminars and training programs, introduced departmental level performance indicators for regular monitoring and evaluation. But the initiative is too early to assess.

This is only a cursory list of public expenditure management reforms and analytical tools aimed at improving state financial management. The agenda is large and to be effective it should be designed to suit the priority needs of the government. Reforms should not be undertaken in fits and starts but considered carefully and adapted to local circumstances.

Improving project implementation and resource use

Bihar’s poor track record of utilization of central assistance/CSS programs, and the factors contributing to this situation have been discussed above. The difficulty with project implementation in Bihar has come to a point where GoI has pushed for central implementation of select Bihar projects. The Development Reforms Facility (RSVY) earmarked a sizeable Special Plan for Bihar to finance development schemes. It was agreed, in consultation with GoB, to use central agencies to implement the schemes, including supervision, monitoring, and ensuring observance of due-diligence in regard to technical and administrative requirements by GoB and the implementing agency. This may be seen as a short-term way to overcome constraints, and is

not a solution. Bihar must develop the means to effectively manage resources and implement its own development agenda.

The recommendations that follow are based on the analysis under the section, 'Central Government's Support for Bihar's Development', and in some areas form the backdrop to the discussion in the next chapter on administrative reform.

- ◆ **Staffing, training and redeployment to address technical and capacity constraints.** Where capacity constraints are binding, the state could identify needed skills, redeploy staff if possible, and utilize available technical assistance. The Planning Commission's Project Preparation Facility to help state governments obtain funds from external funding agencies may be one such option. Bihar could consider getting a few reports prepared and approach the Finance Ministry for onward transmission to the donor agencies. Bihar should also seek capacity building opportunities (local or external grants should not be difficult to obtain). Computerization is an obvious area requiring urgent attention that can receive assistance.
- ◆ **Greater decentralization of decision-making.** Bihar's highly centralized bureaucratic system creates serious bottlenecks at senior levels in the administration. This needs to be carefully tackled with top-level commitment.
- ◆ **Review and reform of antiquated administrative practices.** Both the PWD Schedule of Rates and procurement procedures were identified as needing urgent review and revision. Many other procedural regulations or practices may also require close scrutiny and reform. Often this is difficult to do internally, while external reviewers can more readily identify problems and propose options. A systemic

review of administrative practices and the project implementation cycle could potentially yield major benefits.

- ◆ **Explore design changes in central assistance and CSS programs.** Rigidities in program design can slow or sometimes terminally affect programs. Yet some states have been able to take full advantage of the available discretion in GoI program guidelines to adapt them to local conditions. In some instances, states even modify GoI guidelines to suit their needs (Andhra Pradesh's Janmabhoomi program with central rural development funds, without clearance from GoI is a case in point).⁷ Bihar should explore ways in which programs can be better adapted to local conditions, officers should be provided with incentives and motivated to think creatively about design issues, and a case should be made to GoI on grounds of local impact and outcomes.
- ◆ **Examine ways to press for faster central ministry releases, and creative ways to ensure full utilization of funds.** There is a need to consider having the Bihar Resident Commissioner follow up important cases of central releases with the central ministries and send a fortnightly report to concerned GoB departments and the Chief Secretary. The state must press for full allocation from GoI, and at the same time speed up identification and disbursement in the field. The GoB should organize itself internally to review and follow up on disbursement bottlenecks, and recognize or reward efforts to fully utilize resources. Ministries, district magistrates, BDOs, and project managers should be given a mission to improve project implementation and resource utilization. ■

Notes

¹ *State Finances, A study of budgets of 2004-05*, RBI, Delhi, Jan. 2005.

² Agreement over the division of staff and establishments has largely been completed, but disputes over state liabilities remain. These contribute to difficulties in compilation and analysis of fiscal data.

³ Bihar's fiscal accounts suffer from unresolved reconciliation of assets and liabilities with Jharkhand, and from significant revisions in budget estimates, revised estimates, preliminary and actual data. Some outcomes are difficult to interpret, particularly in recent years, and final numbers may be revised.

⁴ In 2001/02 however, fiscal accounts show that expenditure fell by 3% of GSDP and social sectors bore the brunt of cuts, including salaries. However, this data is difficult to fully reconcile and may reflect anomalies in post-bifurcation accounting.

⁵ A large proportion of power in Bihar is purchased from outside, with high T&D losses and theft but, unlike many other states, with limited losses through supply of subsidized power to agriculture.

⁶ The 18 PEs to be liquidated include the Agro-Industries Development Corp., Panchayati Raj Finance Corp., and the Small Industries Development Corp. It is unclear what sector share this represents. The government reports setting aside Rs. 50 bn for this purpose, in accordance with the order of the state High Court.

⁷ Andhra Pradesh's partnership in the national political coalition may have been a factor in this ability.

Chapter 4

GOVERNANCE AND PUBLIC ADMINISTRATION IN BIHAR

The most important change in recent thinking about economic development and growth has been the emphasis on institutions, administration, and the quality of governance.¹ Thus, India's Tenth Plan document and the Eighth Inter-State Council meeting in August 2003 emphasized good governance and the government's critical role in development. Recognition of the central role of institutions is also evident in the reforms undertaken by the states, aimed at improved response to the public with effective delivery of high-quality services.

Most state governments are characterized by poorly defined service norms, political interference, and a largely non-meritocratic bureaucracy. Especially so in Bihar, this is compounded by a highly centralized administration with the kind of incentive structure that thwarts decision-making and can cause major delays. This impairs the state's ability to manage public resources and implement projects and programs.

Some programs in Bihar have been effectively implemented, demonstrating the possibility of success with resultant improvement in social and economic outcomes. Such successes include: the pulse polio immunization project, COMFED dairy cooperative, participatory irrigation management in Paliganj, and the recent additional revenue measures. This chapter identifies the main difficulties in governance and administration, together with the required coordination in authority, incentives, leadership, and resources to improve administrative effectiveness.

Decision-making, Centralization and Procedural Logjams

Centralization

Bihar's centralized government, resistant to delegation of authority is characterized by personalized politics, that obstructs institutionalized decision-making. There is reduced risk-taking with bureau-

cratic preference for collective scheme approval to avoid accusations in the use of public funds.

The committee system is also poorly developed and is a major hindrance to the decision-making process. For example, the Development Commissioner alone handles over 100 committees on diverse subjects. The Cabinet Sub-Committee on Economic Affairs, set up to expedite important decisions, is swamped by routine matters. Limited computer use results in delays and inefficient manual procedures. This weakens the capacity to deal rapidly with natural calamities, law and order, or projects.

Other instances of centralization holding up speedy decision-making include:

- ◆ Centralized purchases, excessive use of rate contracts, and routing all notices for tenders and procurement through the Department of Information and Public Relations;
- ◆ Lack of downward delegation for minor repairs, expenditure, and tender approval, and the committees of secretaries to approve even minor tenders and purchases;
- ◆ Cabinet approval for most cases relating to temporary or permanent settlement or lease of land;
- ◆ Centralized decisions on most appointments, transfers, and additional charge for even local vacancies;
- ◆ Approval by the finance department or high-powered committee under the Chief Secretary for most expenditure and personnel matters.

Procedural logjams

The severe erosion of development outcomes is due to the system of budget sanctions and releases,

the approval procedure for schemes, expenditure, continuance and creation of posts etc, as well as poor monitoring.

Comparison with other states

States like Andhra Pradesh and Karnataka and the newer states like Chhattisgarh and Delhi have simplified their financial and administrative procedures, allowing departmental autonomy for spending, personnel and approvals, and delegation of powers, with time limits for decisions. In Uttar Pradesh, the departments can incur expenditure on continuing schemes once the Governor has approved the budget. In a number of southern states, departmental file movement has been computerized and empowered committees dispose off inter-departmental matters speedily. Major exercises to revise manuals and secretariat procedures are under way in other states, including financial power to account for inflation and prescription of time limits for action.²

Reform considerations

Administrative and procedural reforms are complex, but can be quickly executed and yield demonstrable benefits, especially if politically non-sensitive. The action areas here include:

- ◆ Amending the Rules of Executive Business to raise the cost limit for schemes requiring clearance by the Empowered Committee and Cabinet. As in the central government, this can be strengthened by an intermediate tier, consisting of a committee under the Secretary with representation of the finance department for original and revised approval as well as for continuing schemes ;
- ◆ Delegating more powers to field officers and elected or autonomous bodies. This will revise financial powers and simplify the procedures for purchase, tender, deployment of staff, and approval of schemes, taking cognizance of the recommendations of the Maheshwari Committee³
- ◆ Institutionalizing the system of internal financial advisers and granting more departmental autonomy in the use of sanctioned budgets, similar to the center and Andhra Pradesh.⁴ This could be introduced gradually starting with the major departments.

These suggestions aim to enable senior officials focus on policy analysis and supervision and

remove decision-making bottlenecks. They intend to communicate the objectives to employees for their support and encourage public discussion to carry out reform.

Civil Service Reform

Sector studies and discussions with senior officials show that recruitment, vacancies and staff performance problems greatly affected policy formulation, project implementation, fund utilization, and service delivery. Two principal problems are the fragmentation of personnel management between the finance and personnel departments, and absence of reform in service cadre rules, which have generated avoidable costs and litigation. A fuller discussion of these issues is included in Annexure 3.

Civil service reform has been well presented in the Fitment Committee Report (1999) and the Fitment Appellate Committee Report (2000). The Fitment Committee, which resembled a Pay Review Commission, showed the impractical and unaffordable aspects of adopting central scales for all state posts. This is especially true as most departments did not have recruitment and promotion rules for the majority of posts. Besides, since there was no rationalization of functions, departments were often created or divided illogically. The Committee also reported a lack of concern about: (a) the unaffordability of providing central scales and allowances; or (b) the need to constitute bipartite committees for wage negotiation. Additionally, there are insights into how past practices have distorted inter-cadre alignments. Some of these issues are addressed below.

Size and composition of civil service

The GoB is not overstaffed as compared with other states (Table 4.1). In fact the obverse is true, as shown by vacancies in critical areas, such as engineering and teaching. The problem with the state's civil service has more to do with affordability, composition, skill mix, spatial distribution, and overstaffing in groups C and D, which form about 94% of the total employee strength.

Reforms in other states

Extensive civil service reforms being implemented in other states, that are relevant for Bihar, can be summarized as follows:

- ◆ Publication of a strategy paper, that has political ownership, on good governance and civil

TABLE 4.1 COMPARATIVE STATE-LEVEL PUBLIC EMPLOYMENT STATISTICS

State	Population	Core Civil service	Ratio	Total govt. employees less SOEs*	Ratio	Total Public sector	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
Punjab	23,510,000	NA		373,702	1.60	NA	NA
Uttar Pradesh**	162,000,000	880,000	0.54	1,530,000	0.94	1,778,500	1.10
Bihar	82,880,000	451,344	0.54	NA	NA	533,544	NA

Notes: * The figures for total government employees less SOEs include work charged and daily wage laborers, grant-in-aid institutions, sub-national governments, and other employees whose salaries are covered by the state. It does not include employees of state-owned enterprises, cooperatives or municipal corporations.

** Figures are based upon World Bank estimates from available data. Gujarat data is from 1998-99. Bihar data is for 2003-04 estimates.

Source: State governments.

service reform with sequenced annual implementation plans (in Andhra Pradesh, Karnataka, Orissa and Kerala).

- ◆ A comprehensive computerized personnel database linked to computerization of the treasury and payroll (in Uttar Pradesh, Punjab and Andhra Pradesh).
- ◆ Responsibility for civil service reform under the Chief Secretary (in Andhra Pradesh, Karnataka, Orissa and Maharashtra).
- ◆ Zero-based audits of key departments (preceded by quick functional reviews) based on inventory of schemes, identification of those redundant, unproductive staff, and linked activities. Redundant staff is offered redeployment, voluntary retirement, or in some instances, termination with benefits (in Orissa, Karnataka and Maharashtra)⁵.
- ◆ Increasing recourse to contract mode of appointment and lateral entry with adequate safeguards (in Andhra Pradesh and Karnataka).
- ◆ Consolidating civil service cadre rules for systematic revision with due regard to causes for service litigation and effective performance⁶.
- ◆ Devising computerized procedures for secretariat information and to monitor file movement such as Smartgov (in Andhra Pradesh) and simpler systems (in Karnataka, Delhi and Maharashtra).

Reform considerations

Against this backdrop, two important steps could help initiate the reform process: (a) setting up an

expert committee with a limited tenure and clear terms of reference to provide a vision and strategy for administrative reform and manpower planning in consultation with employees and civil society. The experience of Maharashtra and recent efforts in Orissa can serve as a guideline; (b) developing a comprehensive personnel database, clearly necessary, as exemplified by the irrigation department. This should be integrated with information required for pension management and monitoring. Clearly, the capacity of the personnel department, in collaboration with the finance department, will need to be strengthened. Recent recommendations of the secretaries' committees to amend civil service rules, and rules on departmental inquiries and secretariat procedures, should be implemented incorporating the suggestions of the Fitment Committee. Finally, the expert committee should formulate measures to rationalize cadre rules, promotion criteria and seniority lists. This could draw on examples from other states and prescribe criteria for the creation and upgradation of posts. The criteria spelt out by the Fitment Committee may help guide this process. These reforms could reduce the burden of litigation (discussed below) and smooth promotion, thereby ensuring greater equity across cadres.

Machinery of Government: Rationalization of Functions and Staff

Changes in the skills mix of staff need to be accompanied by measures to reduce administrative fragmentation and to streamline the machinery of government. In many states, the problem of a large and unwieldy council of ministers is compounded by relatively weak mechanisms for policy coordination. Fragmentation extends beyond administrative

structures, civil service cadres, and the non-alignment of budget heads with departments. Institutional reforms are therefore needed to reduce such fragmentation and align the structure of the civil service more closely with updated functions.

Bihar has 48 departments, which is large as compared with other states (Andhra Pradesh has 36 and Karnataka 29). This reflects the pressures of coalition politics. These departments are fairly segmented without much coordination between them, especially in important policy areas such as poverty reduction, agricultural production and family planning. This dichotomy percolates to the districts and is complicated by the responsibility of elected local bodies for disparate functions. However, the district magistrates retain a critical role in coordination and leadership despite erosion of their authority over elected local bodies and other constraints.

Two major components of the reform process in Andhra Pradesh and Karnataka are: a) simplifying, redefining and rationalizing the government's role to focus on the most critical public goods and services; and b) enhancing accountability, responsiveness and transparency with which the government and its agencies perform this role. States like Uttar Pradesh, Karnataka, Andhra Pradesh and new states like Chhattisgarh and Delhi have initiated serious exercises to merge, abolish or consolidate departments and streamline the reporting relationships for heads of departments. Rationalizing government structure and rightsizing has been achieved to a significant extent in Chhattisgarh, which has reduced the secretariat to 18 departments (compared to 50 in undivided Madhya Pradesh), while limiting salary expenditure to 40% of own source of revenue. Withdrawal of government from unwarranted areas is related both with devolution to local bodies and outsourcing to the private sector, NGOs and user groups as in Karnataka, Kerala and Andhra Pradesh. Orissa's zero-based functional audit and Maharashtra's exercise of quick and effective functional reviews demonstrate ways in which reviews can be undertaken with limited resources.

Reform considerations

Organizational reviews have provided an analysis of restructuring options at departmental and agency levels and creating rationalization opportunities. The Fifth Central Pay Commission (1996) and the Karnataka Administrative Reform Commission (2001) reports provide excellent

models for prior option reviews and recasting of functions and ministries. The Fitment Committee recommended organizational reviews in Bihar and updating of the Rules of Business. However, barring the limited exercises that were undertaken in three departments, most have not had reviews.

Given the imperatives of a coalition government, it is ambitious to immediately expect a major exercise that rationalizes the machinery of the government. A greater number of feasible near-term exercises need to:

- ◆ Undertake zero-based audit of functions and staff across departments, and amend the rules to enable the transfer of staff including engineering personnel between departments keeping the Fitment Committee observations in mind. The newly set up Administrative Training Institute can support this effort.
- ◆ Appoint a high-level state commissioner attached to the Department of Personnel to oversee this work with responsibility to examine the experience in Andhra Pradesh, Karnataka and other states; rationalize the functioning of departments; eliminate administrative overlap and duplication; and wind up units whose services are no longer necessary;
- ◆ Link this to deregulation and privatization as also ongoing efforts to transfer responsibility for infrastructure and social services to user groups; and
- ◆ Clarify the functions of panchayati raj institutions (PRIs) at different levels and their links with district administration and user groups, such as JFM, VSS, health committees, watershed associations, PIM groups and self-help groups, strengthen the financial and organizational capacity of PRIs and enhance citizens' supervision of PRIs.

Problems of Meritocracy: Recruitment, Promotion, and Redeployment

The existing civil service rules envisage a merit-based system of recruitment, placement, promotion, sanctions and rewards. However, official committee reports and interviews show that the system operates in an ad hoc, non-transparent and

non-meritocratic manner. Problems related to the work environment (including those faced by women employees), infrastructure, and accommodation, local tensions and delayed salaries together affect staff morale. There also appears to be a breakdown of hierarchy and the loss of control by district magistrates, heads of departments and departmental secretaries over subordinate personnel. The district magistrates appear to be frustrated by centralization, absence of support and understanding from their superiors, and inaction on reports of malfeasance and inefficiency at subordinate levels.

Problems of recruitment, promotion and redeployment

Difficulties in recruitment and promotion lead to problems of vacancies in frontline positions, which in turn affect execution of schemes and the provision of services. Sanctioned posts of around 40,000 teachers have recently been filled, but after being long overdue. Many vacancies continue in critical field posts like the DDC of zilla parishads, block development officers, chief engineers down to junior engineers and critical support staff in district magistrates' offices.

The problems in recruitment stem from delays in approval for continuation of posts, loopholes in departmental rules, court directions, delays in sending requisitions to the PSC and SSC, the inefficiency and recent controversy surrounding the Bihar Public Service Commission and the uncertainty over filling positions following the state's bifurcation. Existing rules prevent the transfer of engineering and other staff across departments to deal with critical shortages. There are also problems of unequal distribution of employees across districts, partly due to their unwillingness to be posted to backward areas. Unlike the Government of India, there is no cap on compassionate appointment of legal heirs of deceased employees and there is no criterion for penurious circumstances.

Performance assessment, rewards and sanctions

The performance assessment of employees is recorded in confidential rolls. As in the center and other states, promotion is based on seniority with little incentive to excel and secure outstanding grades. Training opportunities are limited even for senior officials. Consistent with the trend in most states, there is little effort to weed out deadwood by

enforcing compulsory retirement in the 50-55 year age bracket.

Experience of other states

The importance of merit-based staff recruitment, promotion and deployment has been recognized by most states. The initiatives undertaken include:

- ◆ Rightsizing exercises in Andhra Pradesh, Orissa, Karnataka, Punjab, Goa, Chhattisgarh and Maharashtra with a range of measures to abolish vacant posts, freeze posts and recruitment, phasing out work-charged staff and compassionate appointments, redeployment of surplus staff, premature retirement, and attractive schemes for voluntary retirement;
- ◆ Departmental recruitment committees, on the model of the center and Andhra Pradesh, with an annual plan for filling posts while considering attrition, temporary and permanent posts related to plan and non-plan schemes, essentiality, modes of recruitment, reservation and the shortage of staff in backward districts;
- ◆ Transfer policies based on stable tenure, transparency and consultation with employees (as in Andhra Pradesh and Karnataka);
- ◆ Merit-based recruitment for core and non-core posts requiring different modes of recruitment and the collector's control over field staff (as in Andhra Pradesh);
- ◆ Increasing attention to performance assessment at the secretariat and field levels through improved confidential rolls, clear links to promotion, training, continuance in service and career planning and the use of tangible performance indicators (as in Andhra Pradesh);
- ◆ Efforts to streamline and reduce delays in departmental inquiries; and
- ◆ Training workshops, video-conferences and other modes to improve two-way communication.

Reform considerations

Bihar's Fitment Committee recommended several steps for formulating or revising recruitment rules applicable to all services, and the criteria for approving the creation of posts or awarding pay scales. The state could perhaps follow up these

recommendations, assisted by an expert panel as in Andhra Pradesh. The priority considerations for reform include:

- ◆ Urgent approval of critical vacancies and strengthening capacity and infrastructure in BPSC and SSC for filling posts. However, it would be financially imprudent to fill all vacant positions reported by the departments without verification;
- ◆ Scale up departmental rightsizing exercises after evaluating the effort of the departments of irrigation and public health engineering;
- ◆ Consider setting up recruitment screening committees on the model of the center and Andhra Pradesh;
- ◆ Introduce greater transparency, delegation of powers, and constitute district cadres in the transfer policy; and
- ◆ Improve communication between field officers and departments.

Making Government Accountable and Responsive to Citizens

Responsive administration and access to information

The thrust of the message of the Tenth Five Year Plan and the recent Action Plan for Good Governance approved by the Eighth Inter-State Council is that administrative reform is meaningful only to the extent that it enables responsive, transparent and accountable administration and service delivery. Good governance is on the political and administrative agenda of many states. The features of citizen-centered administration that provides information to the public about the kind and quality of government services should include:

- ◆ Formulation and credible implementation of citizens' charters;
- ◆ Speedy and effective redressal of public grievances;
- ◆ Simplification of rules and regulations;
- ◆ Decentralization and partnerships with NGOs/private sector;
- ◆ Easy and widespread access to information on government schemes and procedures and computerized access of land records (such as BHOOMI in Karnataka);

- ◆ Facilitation of transactions with public agencies through computerized counter services or virtual sites (such as E-Seva in Andhra Pradesh, JAGRITI in Punjab, FRIENDS in Kerala);
- ◆ Opportunities for consultation and participation in budgeting, service delivery and resource allocation (such as Janagraha in Bangalore or Bhagidari in Delhi); and
- ◆ Documentation and dissemination of best practice across states.

The elements of responsive administration and transparency are yet to be fully articulated in Bihar despite positive moves in this direction. The failure of the complaint mechanism and lack of information on reasons for the recurring breakdown in public services - like water supply, power and sanitation in public utilities — contribute to the numerous High Court petitions. There is presently no nodal point for functional reviews and restructuring departments. The division for administrative reform in the Department of Personnel and Administrative Reform is moribund.

E-governance

Good practices in e-governance have been known in many states. These include E-Seva in Andhra Pradesh, Janmitra in Rajasthan: FRIENDS in Kerala and CHOICE in Chhattisgarh for all transactions with public authorities; SETU in Maharashtra (computerized counter services in public offices); city and district-level projects like VOICE in Andhra Pradesh; computerized registration process in Andhra Pradesh and Maharashtra; computerization of land records in Karnataka; wired villages and panchayat links in Kerala, Maharashtra and Madhya Pradesh; computerization of treasury in the southern states; state portals, file monitoring, issue of licenses and permits and various networked systems in Andhra Pradesh, Tamil Nadu, Karnataka and Maharashtra. Chhattisgarh is an example of a new state developing and implementing a road map for e-governance in a short time. Specific applications and IT kiosks may not be a burden on public resources given the readiness of the private sector to come in on a BOT basis or the willingness of NGOs to run IT-based services as in Maharashtra and Pondicherry. E-kiosks for farmers could be piloted quickly on the model of the NGO effort in Pondicherry or the Gyandoot in Madhya Pradesh.

Vigilance and corruption

A series of high-profile scandals have given Bihar an unfortunate reputation of being highly corrupt, reiterated by some central ministries and also external observers. Citizens' surveys show demands for bribes at various service outlets, such as allotment of houses, release of subsidy in poverty reduction schemes, and grant of permits and licenses. One result is the demoralization of "clean" officers when action is not taken against corrupt ones. It also diverts scarce resources away from development needs, and has an adverse impact on the investment climate.

The problem in Bihar is in part related to poorly enforced sanctions and failure to prosecute corrupt individuals. The procedures of departmental inquiries suffer from all the delays and ineffectiveness that are common to most states.⁷ The Lok Ayukta (ombudsman) is generally seen as not being very effective because of a lack of prosecuting staff and an absence of accountability to the public.

Reform approaches

Many states are strengthening their vigilance and anti-corruption effort, with states like Andhra Pradesh, Karnataka and Orissa coming out with a long-term strategy. The Lok Ayukta in Karnataka has been spearheading the move for abolishing corruption. Visible progress is being made in some states. The main problem in Bihar appears to be the lack of accountability for grievance redressal and the failure to fix responsibility for time-bound action based on public requests and complaints. The government could achieve quick results in areas with strong public interface which are prone to corruption and thereby demonstrate its commitment and ability in improving service delivery. The reform priorities could include:

- ◆ Developing rural and urban model offices to demonstrate improved counter services, computerized issue of certificates and permits needed by the public and business, and the benefits from process re-engineering and motivated employees.
- ◆ Strengthening the administrative reforms division to coordinate good governance effort and functional reviews, supported by ATI for capacity building;

- ◆ Widely accessible notification of citizens' charters (based on user and employee consultation) by selected departments, listing citizens' entitlements to various public services with known quality and time limits, and ensuring their implementation in consultation with citizens' groups;
- ◆ Generating citizens' demand for responsive administration through widespread consultations;
- ◆ Identifying and implementing some e-governance applications with demonstrable benefits;
- ◆ Reducing corruption through simplified regulation, process re-engineering, and transparent procurement practices.

Judicial Administration and Governance

A well-functioning judicial system operates with checks and balances between the main branches of government—legislative, judicial and executive. This is vital to each of the key themes of this report that is, a healthy investment climate and environment for growth requires the judicial system to protect property rights and impartially resolve legal disputes; and good governance and administration require that government execute its responsibilities in accordance with the law. A key element of poverty reduction is the equal protection of the poor under the law. The judicial system must be impartial and provide a balanced interpretation of the law while recognizing the constraints and responsibilities of the other branches of government. Some of the issues in judicial administration, with a focus on judiciary-executive relations are examined here.

India performs well in preserving the rule of law. However, the Bihar government has become increasingly challenged in the maintenance of law and order, with financial and administrative difficulties creating extensive litigation against it. This brings the government and the judiciary into conflict over issues of enforcement of rights, policy implementation, and compliance with court orders. The constitutional mechanisms of checks and balances among the three organs of the state seem to be strained and the techniques being utilized for redressing grievances seem distant from what the founders of the Constitution had originally intended.

Growing demands for judicial relief against the government

Since 2000, the vast majority of cases in Bihar's High Court relate to civil writ petitions that involve executive inaction, resulting in violation of a legal right. The writs cover four broad areas: service-related matters of government employees (non-payment of salaries, irregularities in obtaining land revenue; etc.)⁸; irregularities in obtaining land revenue; non-payment of admitted contractual dues; and breach of statutory rights by public utilities.

Public interest litigation

In addition to writs, many public interest litigations (PILs) are being filed in the High Court. In India, the courts are gradually assuming the power under writs and PILs to direct the state on policy matters. In a series of Supreme Court decisions, it has been held that writs can be issued under PILs, to compel government action on matters where the government normally has discretion. However, there are few PILs where the court has actually exercised such discretion. In most cases, the courts order the executive to fulfill an obligation that it is legally bound to perform.

Most PILs in Bihar have shown an urban middle-class bias, such as the infamous Arun Mukherjee PIL. Originally filed to ask for removal of encroachments and street widening, it has subsequently been used for such varied matters as removal of waterlogging, city beautification, and location of bus stands. There have been other PILs though bearing on general social welfare, for instance, to compel the holding of PRI elections, and to protect fresh-water dolphins. Although the majority of PILs are dismissed by the court as frivolous, the executive feels that those admitted are often on administrative and policy issues. They feel the PILs distort public resource allocation and focus on targeted special interests rather than the general population. In addition, there are complaints that a lot of time of senior government officials is being diverted from their primary duties to court appearances that are, on occasion, abusive to them.

The judiciary sees the issues differently citing: repeated instances of government failure to comply with court orders; grave issues at times involved in writs and PILs; court documents not filed for long periods; or government lawyers unable to answer court questions. Indeed, the pat-

tern of cases against the government that come before the court strengthens the perception of a breakdown of governance. The cases include: government programs not being implemented, basic services not provided, corruption, escalating diversion of funds, violence and a general feeling of government apathy. Often, the government simply refuses to comply, resulting in a large number of contempt petitions.

Contempt proceedings against the government

Many writ petitions and PILs have financial implications for the government which, under Bihar's fiscal stress, cannot be financed. The government frequently ignores court orders as a result, leading to contempt of court proceedings. There are currently over 5,500 contempt applications pending against the government in the High Court, 1000 of them from the previous year alone. The government in fact has no financial incentive to comply with court orders since contempt proceedings take two years to be heard (relating to different fiscal years and different postings). The court views this as outrageous, and it has led to an apparently adversarial relationship between the judiciary and the government. It is reported that in the majority of court cases, the government could comply with court orders as the matters are capable of being implemented by the government and yet compliance is achieved only after contempt proceedings.

Many other writs raise issues of administrative inaction or irregularities. Administrative actions sometimes violate the rule of law. A frequent example is writ and contempt applications involving the government's non-payment of retirement benefits. Over 1500 contempt applications are pending relating to non-implementation of orders involving post-retirement benefits. The court has often directed senior government officials to appear before it, as government lawyers are unable to explain to the court the underlying rationale of the government.

The payment of public salaries has also been raised with the Supreme Court of India. Recently, the Supreme Court asked the Bihar Government to deposit Rs.50 crore with the Patna High Court for disbursement of part of the unpaid salaries to thousands of state public sector undertaking (PSU) employees. In many cases, these employees have not been paid for years.

Strain on court resources

Like other states, Bihar suffers from a huge backlog of court cases. The Patna High Court is estimated to have about 90,000 pending cases. Owing to the expansion of the court's writ jurisdiction and the increase in PILs, a significant proportion of court resources are being devoted to them. Out of the 24 judges in the High Court, eight are exclusively devoted to hearing writs and four to hearing PILs. This seriously affects the prompt disposal of other cases and adds to the arrears. On an average, there is a waiting period of about 20 years before a case comes up for hearing.

The quality of legal representation on behalf of the government is also poor. Previously governmental departments had legal cells to advise on litigation, but these have now been abolished. The offices of the Law Secretary, the Advocate General, government pleaders and other standing counsel are not equipped to deal with the growing number of cases against the government. The coordination between them and the concerned litigant departments is weak and results in long delays and inadequacies in filing documents on behalf of the government.

About 80% of the judiciary belongs to the forward castes although they represent about 18% of the total population. It is reported that interests represented by the forward castes are reflected in judicial pronouncements, undermining the implementation of much socio-economic legislation, to the detriment of the weaker sections, such as the Land Ceiling Act and the Bihar Homestead Tenancy Act. Representatives of the weaker sections are slowly beginning to join the legal and related professions and issues concerning their protection and welfare are now being taken seriously.

Reform considerations and approaches

Government litigation is closely linked with administrative reform on two counts. One is the question of procedural reform relating to management of litigation, effective monitoring of cases, proper legal defense, appointment of good pleaders and the provision of support and advice to the heads of departments and secretaries. The other is the need to address systemic causes for recurring petitions to the court for executive inaction, insensitivity to citizens' grievances, civil service complaints or payment of admitted dues by the joint engagement of the High Court and government as exemplified in pension payments. Bihar could draw lessons from

recent studies in Andhra Pradesh, reforms introduced in Karnataka and Andhra Pradesh as well as the lead role being played by the law department.

The large number of contempt petitions in the High Court questions the effectiveness of writ proceedings. Simply issuing of writs is not the answer without delving deeper into the ability of the government to comply with court orders because of administrative or financial constraints. Attempts to engage with the administration have been made on a few occasions in the Patna High Court. The latest is a joint attempt to set up a pension cell within the state departments for dealing with retirement benefit cases coming to the High Court. Such engagement, pending evaluation, would appear to be a much more constructive approach to dispute resolution.

The issues noted here on judicial-executive relations are complex and do not lend themselves to simple and quick solutions. They also can have profound consequences for society, with the potential for major improvements in the way government conducts itself and how the law is administered. A great deal of discussion and open debate will be needed in moving this agenda forward. Some preliminary suggestions include:

- ◆ **Setting up of a system to facilitate proper management of cases against the government.** As brought out in the Report, one of the primary reasons for the poor quality of legal representation on behalf of the government is the lack of infrastructure and resources to manage and advise, inter-alia, on actions and proceedings and coordination between departments. A system in which the government is advised and updated on issues, that are rationally segregated, will help improve the quality of legal representation of the government. It will shorten the ever-widening gap between the government and the judiciary. There is also an urgent need to monitor government cases in the courts, improve the system of appointment of government lawyers and establish a mechanism to ensure proper decision-making for efficiently managing the process of government litigation. In response to a recent directive from the High Court, the government has issued instructions directing all departments to ensure that court documents are filed on time and that court orders are complied with.

- ◆ **A review of court management and administration with the objective of setting up a system for the efficient and prompt disposal of cases.** Owing to the ever increasing litigation and limited resources, leading to virtual denial of justice, such a system is imperative. The judiciary needs to be equipped to better administer the pending cases on a priority basis. Such priority could depend upon factors such as cost, public interest, the number of years a matter has been pending, etc. The court management procedure also needs improvement.

Encouraging alternate dispute resolution

Mediation and alternate dispute resolution may be a more practical and speedy resolution to the majority of pending cases, rather than relying on current court procedures to clear up the massive and growing backlog. This would require panels of trained mediators and conciliators. In addition, the amendments to the Code of Civil Procedure, 1908 for the purpose of speedy and timely adjudication of disputes should not remain merely on paper.

Summary

The quality of governance and the civil service are fundamental to development. They cut across issues of performance in service delivery, poverty reduction, and economic growth. This chapter has focused on public administration and measures to improve its performance.

Bihar's problems with regard to administration include: fragmentation, excessive support staff, inadequate skilled staff, difficulty with redeployment, and antiquated and cumbersome rules, which curb governance. These problems are not unique to India, and certainly not Bihar. However, they are accentuated in Bihar by the extreme centralization of the administration, a weak system of incentives and sanctions, procedural logjams, and by corruption. The difficulty and fear of risk taking, due in part to fear of vigilance inquiries and court direction, has paralyzed decision-making with consequent erosion in development outcomes and performance of basic public services, including core social development affecting all levels of government. Related to this has been the enormous and growing burden of government litigation and contempt orders, due in large measure to Bihar's problems of administration. These are

also key factors behind weak project implementation and forfeiture of centrally sanctioned resources.

There is a large agenda for administrative reform. This chapter has dealt with centralization and decision-making, civil service reform, rationalization of staff and functions, the problems of meritocracy, government accountability, and judicial administration. But this large agenda needs to be prioritized and sequenced in a pragmatic way, bearing in mind the difficulty of institutional reform and Bihar's capacity constraints. Moreover, for the agenda to succeed, its ownership by the political leadership and bureaucracy is imperative. Reforms in Bihar should be simple and practical to take the agenda forward, yield demonstrable benefits, enable quick execution, and be politically non-threatening. The following priorities are recommended for initiating this agenda:

- ◆ **Procedural reforms and amendment of antiquated rules:** (i) Delegate more authority by amending the financial limits under the Rules of Executive Business. This would raise the cost limits for clearing schemes without Cabinet approval, and for departmental expenditure sanction with minimum external reference; (ii) minimize disruption of funding flows for budgeted schemes through budget procedure reform. This will enable utilization of Gol releases through contingency funds, or immediate access to funds kept in civil deposit; (iii) amend rules on cadre rationalization and secretariat procedures including the authorization of transfers across departments to hasten decision-making and enhance administrative capacity by implementing the recent recommendations of the committees of secretaries.
- ◆ **Enable secretaries and field officers to focus on policy and program implementation:** (i) Grant greater departmental autonomy over sanctioned budgets, scheme approvals, publication of tenders and notices, continuation of posts, time-bound promotions, and contingent expenditures; (ii) fill secretariat and technical head vacancies (plan and non-plan), establish transparent rules for vigilance inquiries, and reduce time spent on establishment matters; (iii) delegate more authority to district magistrates, field officers and elected or autonomous bodies, for purchase, tender

approval, staff deployment in key vacancies, and routine maintenance ; (iv) establish a system for effective management of legal cases against the government, including service litigation; and (v) develop measures to improve two-way communication between field staff and the secretariat.

◆ **Making the administration more efficient and responsive:** (i) provide more opportuni-

ties for exchange of experience and experimentation to field officers through workshops in the Administrative Training Institute with dissemination of success stories; (ii) improve tracking and public grievance redressal mechanisms; and (iii) create counter services to enhance public satisfaction.



Notes

¹ The World Bank's 2002 *World Development Report* focuses on institutions, markets and economic development.

² See Report of the Karnataka Administrative Reforms Commission, 2001, and the Report of the Andhra Pradesh Cabinet Subcommittee on Administrative Reforms.

³ Report on Administrative Reforms in India, prepared by Professor S R Maheshwari, former Professor of Political Science & Public Administration, Indian Institute of Public Administration, New Delhi and submitted to the Department of Administrative Reform & Public Grievances, Ministry of Personnel, Gol, 2002.

⁴ See Andhra Pradesh Report on *State Financial Accountability Assessment, 2003* and the Easwaran Committee Report for Gol, 1996.

⁵ See Orissa White Paper on *Public Expenditure Management and Administrative Reform, 2002*, for a lucid exposition of rightsizing strategy.

⁶ See the excellent exercise by the One Man Committee in Andhra Pradesh, 1980, and the recent *Review Report of Service Litigation* by the Andhra Pradesh Center for Good Governance, 2002, as well as the Report of the Maharashtra Committee on Good Governance, 2001.

⁷ See the Report of CGG Andhra Pradesh referred to earlier and the Report of the Institute of Applied Manpower Research, Delhi, 2003.

⁸ There is also some indication of the High Court selectively admitting matters which involve financial claims against the government that should actually be tried as civil disputes.



Chapter 5

SERVICE DELIVERY AND POVERTY ALLEVIATION POLICIES

This chapter looks at public service delivery and why most services fail to reach the poor in Bihar. It examines some major social programs, the effect of policy on service delivery, and the levers that could improve program design and outcomes.

Service Delivery in the Social Sector in Bihar

A number of factors have made education and health outcomes deficient and of indifferent quality in Bihar, particularly for the poor. The WDR (2004) shows that such deficiencies are due largely to problems of public service delivery that disproportionately affect the poor who lack the resources to access private facilities.

TABLE 5.1 ABSENCE RATES (%) IN PUBLIC FACILITIES IN MAJOR STATES IN INDIA

	Primary schools	Primary health facilities
Andhra Pradesh	31	-
Assam	31	58
Uttar Pradesh	26	42
Bihar	26	58
Uttaranchal	25	45
Rajasthan	23	39
Karnataka	23	43
West Bengal	21	43
Gujarat	21	52
Haryana	19	35
Kerala	18	-
Punjab	18	-
Tamil Nadu	17	-
Orissa	14	35

Note: Absence rate is the percentage of staff who are supposed to be present, but are not in on the day of an unannounced visit. Source: Chaudhury and others (2003). Data should be considered preliminary.

Statistics on absenteeism provide a glimpse into the problems of quality in both education and health services. Table 5.1 indicates that Bihar's absentee rates for primary teachers and health workers in public facilities at 26% and 58% are the fourth highest and the highest, respectively among 14 major states in India. These compare poorly with the all-India figures of 23% and 43% for the two categories.

Education service delivery

Since the nationalization of schools in 1976, the government has been the main provider of educational services in Bihar. Until then, elementary schools were controlled and managed largely by local bodies through state grants. These schools met the needs of the higher castes. The government takeover of aided schools helped expand educational opportunities to cover a wider population. However, the nationalization process became politicized without a regulatory framework in place.

The existing educational system is clearly unable to provide quality services. As seen in Table 5.1, teacher absenteeism is an endemic problem. According to a UNICEF study (2003), based on data collected from five districts in Bihar over three years (2000-02), if official work and holidays are taken together, a teacher spends about two months of the year in the classroom. A combination of factors, ranging from lack of monitoring teachers' performance to the involvement of teachers in a number of miscellaneous government duties, account for their poor attendance.

The unsatisfactory functioning of schools is due to teacher absenteeism, which is exacerbated by a rising shortage in the number of teachers. Only about 30,000 teachers have been appointed in elementary schools over the last ten years. Apart from the dismal fiscal situation in the state, the

problem lies with actual recruitment. The pupil teacher ratio (PTR), which is more than 90:1 in primary schools, worsened during the 1990s. In order to attain the national norm of 40:1 PTR, without taking into account the children currently out of school, more than 60,000 additional teachers would have to be recruited.¹ The impact of poor quality schooling is evident from the results of the Grade VIII examinations introduced by the government to monitor the quality of elementary education. In 2002, as many as 76% of the students received grade C or below in mathematics and 86% in Hindi.

Non-public sector in education: The involvement of NGOs in education has been virtually non-existent in Bihar. On the other hand, the role of the private sector appears fairly significant according to household data, showing it to be greater than official statistics indications. A recent household survey, in 11 of the DPEP districts and four of the non-DPEP districts, showed that over 50% of the girls enrolled in upper primary classes were in private schools. At the primary level, enrollment in private schools appears to be in the 10–20% range for both DPEP and non-DPEP districts. While the discrepancies between household surveys and official statistics on education are a cause for concern, another study suggests that increased private sector participation in Bihar is the result of its higher accountability and regularity in functioning.²

Health service delivery

Bihar, like many other states, has a tremendous shortage of health infrastructure as seen against the central government's population norms. For example, in 2002, there was a shortfall of 3705 health sub-centers (HSCs), 875 primary health centers (PHCs) and 623 community health centers (CHCs). This scenario exists despite Bihar's overall public health infrastructure network, comprising

about 15,000 health sub-centers, 2200 primary health centers and 150 community health centers. In fact, the number of PHCs in Bihar increased by 177% between 1985 and 1996, compared to an increase of 140% for the entire country.

There is growing evidence that existing health facilities are sub-standard as are public schools. The Rapid Facility Survey, conducted in selected districts by the Department of Family Welfare, Government of India, reveals that basic health amenities are lacking.³ Field visits to several districts revealed that, while health infrastructure was spread out numerically, most buildings needed extensive repairs. Shortage of funds and the preoccupation of health managers with their private practice were causes for poor maintenance. There was an absence of monitoring and supervision, equipment lay idle due to want of maintenance, and most drugs were not available or had lapsed expiry dates. One reason for the dysfunctional facilities is poor planning such as the absence of proper residential accommodation for staff, many sub-centers being far away from the main habitation and the skewed location of PHCs, with districts like Patna faring much better than others like Sheohar.

Role of the private sector in health

There is significant reliance on the private sector for critical health services (even in the rural areas and among the poor) as public facilities are deficient in Bihar. The ratio of household spending to public expenditure in the case of health was the second highest in Bihar (81%) among all major Indian states.

A recent survey in rural Bihar indicates that private doctors and quacks together contributed 74% of all medical consultations, with government doctors being consulted in only 15% of the cases (Table 5.2).⁴ Further, the absence of a systematic pattern

TABLE 5.3 DISTRIBUTION (%) OF WOMEN RECEIVING PRE-NATAL CARE BY SOURCE OF CARE

Quintiles	ANM/ BHW	Govt doctor	Priv doctor	NGO doctor	Other	Total
1	23.5	17.7	44.1	2.9	11.8	100.0
2	20.0	28.0	40.0	8.0	4.0	100.0
3	21.2	15.2	45.5	15.2	3.0	100.0
4	7.5	25.0	57.5	5.0	5.0	100.0
5	7.7	20.5	64.1	2.6	5.1	100.0
Total	15.2	21.1	51.5	6.4	5.9	100.0

Source: Srivastava (2003).

TABLE 5.2 HEALTH PROVIDER CONSULTED BY PATIENT FOR TREATMENT (%)

	Household per capita consumption quintile					Total
	1	2	3	4	5	
Quack	36.3	39.9	32.3	34.9	32	35.2
Private doctor	40	30.4	40.3	36.3	46.9	38.6
Government doctors	14.8	15.2	12.9	15.1	18	15.3
Other	8.9	14.5	14.5	13.8	3.1	11.1

Source: Srivastava (2003).

across consumption groups suggests that the poor consult private doctors and quacks as often as the well-off.

Private doctors provided pre-natal care for more than half the women, while government doctors covered around 21% (Table 5.3). Auxiliary Nurses and Midwives (ANMs) provide a package of pre-natal services for women from the poor and socially disadvantaged households. Although their total coverage was low (15%), their services were relatively well targeted; in addition, 53% of the women covered by the ANMs were SC/ST or Muslim.

Rural households are compelled to consult private doctors, many of whom lack proper qualifications or training. However, this use of private services could enable private-public partnership with certain services provided by the private sector and public subsidies targeted for the needy. But this requires a system to regulate the private sector and provide training if quality health care is to be ensured.

Incidence of public subsidies

An understanding of the public service delivery system requires a look at the distribution pattern of subsidies between different economic groups. Firstly, this helps relate the outcomes with an important, albeit limited, indicator of public policy; secondly, it provides some indication of those subsidies which are more likely to improve outcomes among the economically backward groups.

Public subsidies in education seem tilted in favor of the upper economic groups, especially for secondary education, and specifically in favor of males. In the case of health subsidies, disproportionately large benefits again go to the upper economic groups; the distribution particularly favors the relatively well-off for subsidies on hospital usage, which accounts for 85% of total health subsidies (see Box 5.1).

However, education benefit outcomes result directly from low enrollments among the poor and

women — the static analysis presented here can only measure the average benefits of existing expenditure on various groups. Similarly, with health subsidies, the results arise directly from low usage of certain kinds of services like hospitalization among the poor. This static analysis would therefore not capture the extent of the impact of an incremental or marginal rupee spent on enrollments or health service usage of each group — a question that is probably the most relevant for policy design.

The results reveal that, given the current pattern of enrollments and health facility usage in Bihar, public subsidies favor the more frequent users of public schools or health facilities, who also happen to be better-off and, in the case of education, likely to be male rather than female. Subsidies in primary education are distributed more equitably than those for secondary education, indicating that a focus on primary education is more likely to improve outcomes among the poor. In the case of health, subsidies for immunization are mostly pro-poor — which calls for a focus on preventive care like immunization that currently constitutes less than 8% of the total amount of health subsidies.

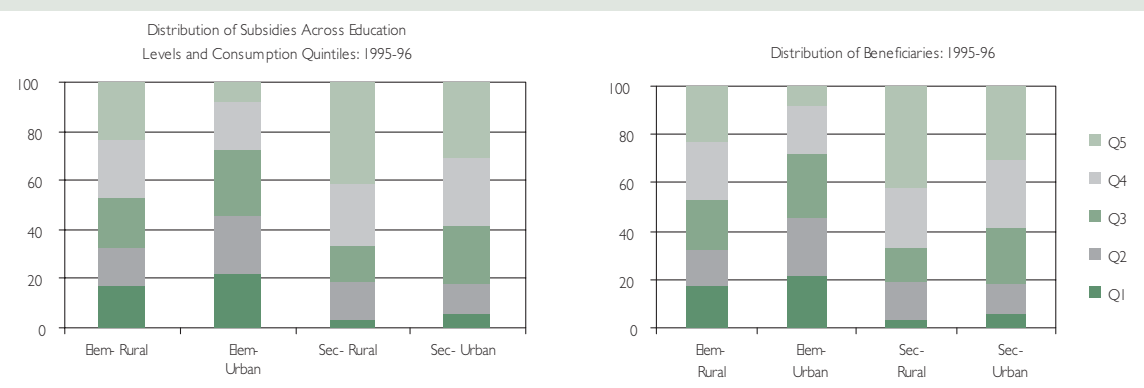
While additional resources are necessary — in the light of the infrastructure and staffing needs highlighted earlier for both education and health — the necessary impact would need a dynamic change in the spending pattern. Given the indifferent quality and inefficiencies that abound, improvement in the efficiency of spending would require broad-based reforms in service delivery that address systemic institutional problems.

Why Service Delivery Fails the Poor

The WDR (2004), drawing on a variety of evidence, develops some insight into the reasons for the failure in public service delivery. This would help understand the nature of constraints that prevent the effective delivery of services in Bihar.

BOX 5.1 BENEFIT INCIDENCE OF PUBLIC SUBSIDIES IN EDUCATION AND HEALTH – A STATIC ANALYSIS

During 1995-96, Bihar was one of the top three states in terms of total expenditure on elementary education; in per capita terms though, spending on education was less than half the country average. A benefit incidence analysis, presented here, shows how public spending in education and health is distributed between different economic groups. Importantly, however, the static analysis presented below is able to only measure the average incidence of existing expenditure on various groups, and not what the impact of an expansion or contraction in public spending would be on enrollments or health service usage – a question that is probably the most relevant for policy design. The latter is a question best addressed by a dynamic benefit incidence exercise; this has not been attempted here, and would be an important subject for future study in the context of Bihar.⁵ Existing work – theoretical as well as based on data from other countries – suggest that increases in public spending often have greater impact on the poor than what is suggested by the static incidence numbers presented here. The figures below show that the bottom two quintiles (in terms of per capita household expenditure) in rural areas received less sub-



sidies for primary education than did the higher quintiles. In urban areas, on the other hand, the primary school subsidies are relatively evenly distributed for the bottom four quintiles, and the highest quintile receives less than one-tenth of the subsidy. In rural and urban areas alike, secondary education subsidies are distributed much more starkly in favor of the relatively well-off. While 6% of rural subsidies and 6% of urban subsidies go to the respective bottom quintiles, the top-most quintiles received 42% and 31% subsidies respectively. The distribution of beneficiaries of subsidies for primary and secondary education is similar to that of the corresponding amount of subsidy in rural areas. This suggests that the distribu-

tion of subsidies is a direct result of the pattern of enrollment in public and privately-aided schools across economic groups. In urban areas, in contrast, the bottom four quintiles have marginally lower shares of beneficiaries as compared to that of subsidies, while

PUBLIC SUBSIDIES IN THE HEALTH SECTOR IN BIHAR

	Share of public subsidies by quintiles (%)					Ratio I/V (%)	Share of public subsidies by items (%)
	I	II	III	IV	V		
	Rural						
Short hospitalization	3.9	15.9	28.5	21.3	30.4	7.8	35.4
Hospitalization	3.5	11.4	21	23.4	40.8	11.7	51.3
PHC and others	7.2	9.6	23.6	26.2	33.4	4.6	5.2
Immunization	19.8	22	19.6	19.3	19.3	1.0	8.1
Total	5.1	13.7	23.7	22.5	35	6.8	100
	Urban						
Short hospitalization	5.7	20.1	31.9	22.8	19.5	3.4	33.3
Hospitalization	3	10.8	21.6	50	14.5	4.8	63.1
PHC and others	24.3	12.1	20	12.9	30.7	1.3	2.1
Immunization	25.7	26.7	18.8	14.9	13.9	0.5	1.5
Total	4.7	14.2	25	39.7	16.5	3.5	100

the top quintile has a higher share. This possibly stems from the well-off in urban areas enrolling their children in privately-aided schools that charge higher fees, implying a lower subsidy per student enrolled – and at a higher rate than the rest of the urban population. In rural and urban areas alike, males benefit from a disproportionate share of the total subsidy: 67% and 79% of primary and secondary subsidies respectively in rural areas benefited the males. This incidence pattern is entirely explained by the differentials in male and female enrollment rates, which is especially pronounced in rural areas, and widens for higher levels of education. During 1995-96, Bihar recorded the lowest annual public health spending per capita among major Indian states – Rs.15 as compared to Rs.84 for the country as a whole. Out of this limited public health spending, as shown below, a much smaller share was distributed to the bottom quintile (in terms of per capita household expenditure) than the top quintiles in both rural and urban areas. The poorest 40% received only around 20% of the total public health spending. The distribution of subsidies among income groups varied substantially across services. Public subsidies for hospitalization (over half of total public health subsidies), were distributed predominantly in the richest quintile for both urban and rural areas, who received more than 5 times and 10 times respectively of what was received by the poorest quintile. Public subsidies for short hospitalization indicate similar tendencies, whereas subsidies for immunization were distributed equally or even in favor of the poor households. In the rural areas, households in the poorest quintile received almost as much public subsidy through immunization as those in the richest quintile, while in urban areas, the former's share was larger.

Source: Gupta (2003), Indicus Analytics (draft, 2003).

(1) The WDR points out that even if the government devotes an adequate share of its budget to health and education, the expenditure does not favor the poor or the services they need. The benefit incidence exercise of education subsidies mentioned above indicates that this is indeed the case in Bihar, where the poor largely underutilize the services that are supported by public spending. (2) Even in the case of public spending on primary schools and primary health clinics that benefit the poor, the money does not always reach the front-line service provider, on account of leakages in the intermediate stages arising out of inefficiencies and corruption.

(3) Even if pro-poor spending is increased, service delivery personnel need to be present and effective at their jobs. But education and health service personnel are often mired in a system where the incentives for effective service delivery are weak, corruption is rife, and political patronage is a way of life.

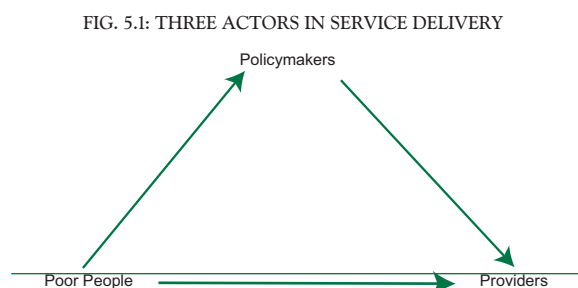
(4) Services fail the poor due to the lack of demand in remote rural areas, and especially among the poor. Poor quality of services is also one of the reasons. Even when the services are free, many poor, rural families cannot afford the time it takes to travel to a school or health clinic. In the case of education, the poor in remote areas may also perceive the returns to education as not sufficiently high to compensate the cost in terms of time and money spent in sending their children to school. This problem is exacerbated by Bihar's lack of growth and employment opportunities. Insufficient demand for services

can also be due to cultural factors — particularly in education for girls who are often engaged in domestic work from an early age.

To understand the bottlenecks in service delivery arrangements, it is useful, following WDR (2003), to unbundle the service delivery chain into three sets of actors, and examine the relationships between them (Fig. 5.1). Users of services or clients have a relationship with front-line providers like teachers and health workers. Unlike a market transaction, there is no direct accountability of the provider to the consumer for public services such as health, education, water and sanitation. Instead, services are mostly provided through the “long route” of accountability — by clients influencing policy makers, and policy makers influencing providers. When the relationships along this long route break down, service delivery failures occur.

Consider the first relationship along the long route — the link between clients and policymakers (Fig.5.1).

FIGURE 5.1 THREE ACTORS IN SERVICE DELIVERY



In principle, the poor, as citizens have a say in defining society's collective objectives and controlling public action to achieve them. In practice, however, the poor are often excluded from the formulation of collective objectives. One obvious solution would be an intervention that reduces the gap between the policy makers and poor clients. In certain countries, decentralization has been adopted as a way to bring clients closer to policy makers and implementers and increase their participation. But even if the voice of the poor reaches the policy maker, the services will not improve unless the policy maker ensures that the service provider delivers the services. The policy maker may not be able to specify the exact nature of the service to be provided, or monitor the activity and discipline providers. Teacher absenteeism is in part a reflection of this.

Given the difficulties in strengthening the long route of accountability, improving the short route—the client-provider relationship—deserves consideration. Evidence from many countries shows endemic problems in existing service delivery arrangements that neglect the role clients can play in making services work better. Thus, with regard to many services, clients can help tailor the services to meet their needs.⁶ And second, providers can be reigned in by competition which enables clients to choose between service providers, thereby allowing them to reveal their preferences. For instance, policies that reimburse schools on the basis of the number of students (or female students) they enroll, implicitly create competition among schools for students, increasing the choice available to students. International experience suggests that when the scale is tipped in favour of poor or disadvantaged groups, the effects are better.⁷

Third, when there is limited choice of providers, increasing the poor's participation in service provision — empowering them to monitor the provider, for example — can achieve similar results. Clients can play the role of monitors since they are present at the point of service. The question is whether they have an incentive to monitor, since monitoring is a public good, with the benefits accruing to the entire client group, while the costs are borne by the few individual monitors. There is however ample evidence from around the world to suggest that if programs are designed appropriately — empowering and leveraging institutions at the level of communities — and when the incentives are

high, users do participate successfully in monitoring activities.⁸

Improving Social Service Delivery in Bihar

A strategy to improve social service delivery in Bihar should be explored in the context of the framework described above. A useful starting point is to look at how a recent initiative in education — the District Primary Education Project (DPEP) — seeks to improve the relationships between policy makers, clients and service providers, by adopting some of the mechanisms suggested.

District Primary Education Project

Bihar has had experience with large-scale reform in primary education for the last five years with the World Bank and UNICEF supported DPEP. The Bihar Education Project (BEP) supported by UNICEF was one of the first large-scale donor-supported education programs in India introduced in the early 1990s in seven districts of the undivided state. In addition to training teachers, this project developed community groups or Village Education Committees (VECs) to support education at the school level. The BEP was incorporated into the DPEP when it became effective in March 1998. The objectives of the DPEP are to expand access, increase student retention and learning, and improve state and district capacity to manage primary education. The project currently operates in 20 districts of Bihar.

The main components of DPEP include: construction of schools; appointment of teachers; establishment of VECs and below district level resource centers for training teachers and VEC members; provision of grants to teachers and VECs; empowerment of women through the Mahila Samakhya program; and the development of education management capacity at the institutional and personnel levels. The success of DPEP has primarily been in strengthening community participation in service delivery for education through institutions such as VEC and MS — consistent with the objective of reducing the distance between clients and providers, and enabling effective monitoring (see Box 5.2).

The DPEP operated through an independent society — the State Implementation Society (SIS) — which was initially thought to be the most efficient way to finance and deliver services to schools.

The component which focuses on enhancing community involvement in education in DPEP has been one of the main successes of the program. This component has two dimensions: first, motivating communities to send their children to school through community enrollment drives and other village-level activities; second, the institutional dimension involving the establishment of VECs in every school comprising parents, community and school officials. Initiated in 1988 through a government order, 24,856 VECs have been established in the DPEP districts. Each VEC has 15 members of whom three are nominated and the rest elected; 50% have to be women and there have to be representatives from parents, minority and SC/ST communities. Building on the success of BEP, the DPEP has systematically trained and empowered members. The VECs have now been reconstituted into Vidyalaya Shiksha Samitis (VSS) through a separate VSS Act under the panchayati raj system. In spite of considerable variation across VSS, most reports reiterate the fairly consistent involvement of VSSs in school matters.

Another component of the DPEP program, which has helped improve service delivery in education is the Mahila Samakhya (MS) program operating in seven districts. The MS program is supportive of educational reform through several activities, such as mobilizing communities, and educating pre-school children and adolescent girls. The program empowers and organizes women into collectives that make decisions concerning their own development. The MS groups transcend divisions of caste, class and religion and have proved to be powerful decision-making bodies at the village level.

Owing to institutional constraints at the state level, DPEP has had less than its potential impact. However, a few indicators show some improvement most likely attributable to the strong community-level involvement through VSS and MS programs. According to project data, retention has increased by 10%. Household data suggests that age-specific enrollment is higher in DPEP districts than in the non-DPEP ones. Mid-term assessment of learning does indicate improved average achievement scores especially in the earlier grades: about 17 percentage points in Grade II and about 5 percentage points increase in Grade V.

While this approach had its advantages in terms of efficiency, it also implied that the broader state education system was not involved in the process, which proved a hindrance. This underscores the fact that the success of programs like DPEP is critically dependent on the extent to which they are integrated into an overall vision and plan for improving service delivery. Addressing the profound challenges in service delivery in Bihar is beyond the capacity of such programs, in the absence of a supporting framework that addresses institutional weaknesses in the system. In this context, the DPEP is best seen as offering innovative solutions — especially on the process and benefits of empowering communities — that can facilitate the creation of a strategic plan for institutional reform in service delivery.

Strategic Vision to Improve Service Delivery

Improving service delivery in education and health in Bihar, above all, requires a comprehensive vision for reform which is fully supported by politicians and bureaucrats. This would form the framework for two critical components.⁹

Policy environment

The link between policy makers and providers for effective service delivery critically rests upon a coherent policy framework. The process of policy formulation in the social sector in Bihar is weakened on account of policies, rules and regulations often being ambiguous, contradictory or fragmented. Several conflicting factors impact the process of policy formulation including constitutional amendments, central directives, public opinion, demand from pressure groups, political persuasions and vested interests. The effect of this is apparent from a number of recent examples (see Box 5.3). Improving and rationalizing the policy environment would also enable improved administration and reduction in wasteful court cases.

Strategic planning

This is the key to the objective of improving the link between policy makers and providers. Strategic planning helps identify constraints to service delivery and also the specific mechanisms for addressing them. Such a strategic plan, in addition to a supportive policy environment, would require the own-

ership and commitment of officials and leaders within the sectors, local governments, and political leadership.

Key Elements for an Educational Sector Strategy

Appropriate financing

A key aspect of strategic planning is the review of programs and expenditure to reduce wastage and duplication in services. The education sector is a case in point. Currently, funds are provided annually without any analysis of targets vis-a-vis achievement or the priorities for the coming year. Most allocations in the previous year are simply repeated with minor revisions. The expenditure is mainly on salaries, which results in: (a) a lack of flexibility over expenditure allocation; (b) inadequate space for essential non-salary inputs, including supplies and maintenance of existing facilities; and (c) inadequate levels of investment. Further, most capital spending is tied to projects, mainly centrally sponsored schemes, which leaves little flexibility for strategic reallocation in new priority areas.

One way of re-aligning expenditures to support a strategic vision would be for centrally sponsored

schemes to be incorporated into state-level planning for that particular sub-sector. Integration of these schemes into the state's planning for education would clearly benefit the implementation of DPEP. The DPEP impact was limited to providing systematic in-service training, grants for instructional aids, and revised textbooks. This was because there was no state-level planning for reform in related areas such as teacher recruitment and teacher management. Under-utilization of DPEP funds is also due to the limited emphasis on DPEP's goals in the state's vision.

Administrative reform

A critical aspect of strategic planning would be to address a range of administrative issues that limit the functioning of service delivery systems: unclear demarcation of power, responsibility and jurisdiction; insufficient or poorly-managed staff; constraints on administrators due to the large number of court cases; and the inadequacy of support institutions (see Chapter 4). This will require the creation of a transparent accountability framework for different service levels. Besides, efficient allocation of tasks and effective monitoring of budgets will require a consolidated database for all sectors and sub-sectors. An attempt was made two years ago to establish a comprehensive information system

BOX 5.3 HOW POLICY ENVIRONMENT IMPACTS EDUCATION SERVICE DELIVERY IN BIHAR: A FEW INSTANCES

Ambiguity in rules and regulations is evident in the way in which VSS and gram panchayats are to be involved in monitoring teacher absenteeism. The VSS Act was passed in 2002 making this unit responsible for confirming teacher attendance in schools on the basis of which teachers' salary would be released. However, when the roles and responsibilities were outlined for panchayats in 2001, the gram panchayats were also asked to monitor teachers attendance, without reference to the VSS. This lacks clarity, causing confusion at both the village and school level, which could result in neither the VSS nor the gram panchayat monitoring teacher's attendance.

A recent circular regarding the transfer of teachers in schools is an illustration of short-term and fragmented policies. According to this circular, all teachers including headmasters are to be sent back to the school in which they began service or their home block. Although the need to identify and isolate fake teachers – a phenomenon that this policy is meant to address – is critical, there are other implications of this decision, which could severely limit service delivery. For example, posting teachers back to their home blocks might lead to some schools ending up with more teachers than is required, and others being short of teachers.

The DPEP has been directly affected by the ambiguity in rules and regulations. After being initially exempted by the Department of Education from the reservation rules in order to be able to employ appropriately drilled state and district staff for the project offices, DPEP had this exemption withdrawn by a court case. The ruling, however, was unclear as to whether the reservation applied only to future appointments or to all previous appointments. This whole episode, mired in bureaucratic and judicial hurdles, has halted the hiring of staff and limited the implementation due to insufficient and over-worked staff.

called the State Education Management Information System (SEMIS). The implementation of this system would be imperative for creating a sound information base for planning and administration. Creation and maintenance of up-to-date personnel records through such a system, and introducing an internal system of grievance redressal to reduce the number of court cases are essential steps towards increasing administrative efficiency.

Issues related to teacher recruitment, management and transfers — namely, the limited number of days when instruction takes place, the sizeable number of vacant teachers' posts, the consequent large class sizes, and the transfer of teachers without clear criteria — need to be addressed to improve the quality of learning. Unless teacher-pupil ratios are reduced, it is unlikely that dropout rates will fall or children will benefit from the learning process. Teachers' instructional time spent in classrooms is related to: (i) monitoring of absenteeism; and (ii) teachers being deputed to perform a number of other duties outside the classroom (see Box 5.4).

Strengthening the role of local governments

The strategic plan must incorporate measures to strengthen the link between clients and service providers. This is possible by developing the capacity of local governments to plan, govern and monitor schools within their jurisdiction. Since 2000, the Government of Bihar has adopted a number of measures to devolve powers and responsibilities in the education sector to local governments or panchayati raj institutions. DPEP's success in developing community-level institutions like VECs is a precursor to this, and integrating these into the panchayati raj system through the VSS Act seems a key initial step already taken.

Clearly, there are strengths in this decentralized model since PRI representatives are accountable to their electorate and more accessible to clients. This will bridge the gap between clients and providers. The success of local governments in improving service delivery depends on a number of factors — clarity in policies, transparency, access to information, capacity building of PRIs, and appropriate restructuring of the education department at the district level. Since many of the elected members are illiterate and lack experience in managing institutions and processes, improvement in service delivery will depend on the extent to which capacity is built among local governments. Moreover,

devolution of power to panchayats has meant dilution of power for district-level administrators, leading to distrust and conflict — an issue that needs to be appropriately managed for the system to function efficiently.

Partnerships with private sector and NGOs

Given the weaknesses in public service delivery and the enormous challenge in providing universal access to primary education, the state should explore effective ways in which the private sector can be involved in providing educational services. Experiments that leverage the role of NGOs and the private sector in service delivery may provide viable solutions, in view of the limited current capacity of the government to undertake the broad institutional reforms necessary for improvements in public service delivery.

The question of how the government can build partnerships with NGOs and the private sector remains an open question. First, in order to fully understand how the private or NGO sector can be leveraged for service delivery, it will be essential for the government to include non-public schools at all levels in the educational statistical database. Second, since many of the elementary schools are not accredited, and therefore vary in quality, monitoring of private schools without stifling private initiative will be crucial. This can be done by introducing a regulatory framework for private schools. Third, as the private sector may not take full responsibility for students from impoverished backgrounds, limited but systematic reintroduction of grant-in-aid schools could be explored.

Government support to grant-in-aid schools can however differ from the earlier model, where support lay in the form of providing teachers' salaries. For example, specific funds based on a school's timebound development plan can be made available to private providers for achieving identified outcomes. Another area of support could be to provide vouchers to students to encourage them to attend these schools. This scheme works better in two situations: first, when clients have a choice in service delivery — though this may not be so in remote rural areas; and second, when information about the standard of education imparted by the school is easily available to parents for making an informed choice. A regulatory framework for private schools, supported by an effective monitoring system, could address this need for information that is critical for a voucher system to operate efficiently.

BOX 5.4 WHAT LIMITS THE TIME SPENT BY TEACHERS IN CLASSROOMS IN BIHAR

The amount of time teachers spend in classrooms is an issue in most states in India. Teachers are not present in classrooms for a sufficient number of days in the year nor for the full length of the school day due to three reasons: (i) official holidays; (ii) deputation of teachers to non-teaching tasks by government officials; and (iii) unspecified personal and official reasons either during the year or for part of a school day. According to a UNICEF study (2003) based on data collected from five districts in Bihar over three years (2000-02) if official work and holidays are taken together, a teacher spends about two months of the year in the classroom. Female teachers spend even less time in the classroom because of two extra days of special leave per month. In addition to the holidays listed, the headmaster spends more time away from school due to outdated and time-consuming salary disbursement procedures. An upper primary school headmaster who acts as a Disbursement and Drawing Officer (DDO) for a certain number of primary schools spends on an average 7-10 days a month on this task.

Owing to the fact that teachers comprise the largest body of civil servants, district officials assign teachers various tasks. It is common for administrative officials (especially those responsible for maintaining law and order) at sub-district and district levels to order the deputation of teachers for non-teaching tasks at short notice. While the education department officials supply the list of teachers, they are seldom consulted in deciding these deputations. Since the supervisory officials from the education department are not always kept in the loop, it is common for teachers to take advantage of the situation and not report back to their schools in time. In Bihar, teachers are also deputed to various offices for clerical jobs, such as typing and report preparation.

Officials from the state, in particular the department of education are cognizant of these issues; however, the measures taken to address teacher absenteeism have had limited effect. Parents, PRI institutions, district magistrates and education department officials would need to work together to monitor this phenomenon, to create clear channels for identifying and dealing with teacher absenteeism, for organizing official use of teachers only during vacations, to put into practice the employment of individuals other than teachers, perhaps on contract, for the collection of data, etc; and re-examine the rationale for granting 24 days extra leave for women teachers.

Source: Prema Clarke, Institutional constraints and strategies for improved service delivery of education in Bihar, (2003).

Improving Health Service Delivery

The broad themes highlighted in the context of the education sector in Bihar — appropriate financing, administrative reform, strengthening local government and developing public-private partnerships — are also relevant for the health sector. At the same time, the present scenario in the health sector creates challenges specific to this sector alone. It is also useful to look at models that can be emulated in Bihar — innovative experiments within the state, as well as those undertaken by other states with comparable social and economic indicators.

Better targeting of public resources

The benefit incidence analysis of health subsidies suggests that better targeting of resources to the poor and disadvantaged will require directing resources in those areas where the poor are likely to derive significant benefit. These include: (i) preventive programs like immunization (the proportion of fully immunized children has actually declined to

about 10% in recent years); and (ii) primary and community health care facilities. Given that the bulk of the current subsidies in Bihar goes to hospital services, it appears that this will only be possible by shifting resource allocation from hospitals to PHCs.

This re-allocation, without compromising the functioning of hospitals, would be possible only if there is scope for efficiency gains or for greater self-financing of hospital services. Since the economically stronger segment receives a large proportion of hospital services, it should be feasible to increase the level of self-financing in hospitals. At the same time, the poor should not be priced out of hospitals. This would require targeting hospital care subsidies to those who cannot afford to pay. The models adopted by states such as Kerala and Tamil Nadu could be explored.

Innovative approaches to health care

The quality and range of services available in the rural areas are extremely limited despite extensive

public health infrastructure, and whatever services are available are largely used by the better-off. Given the weaknesses endemic to the public service delivery system, an attempt should be made to encourage the participation of the private sector in rural areas. Innovative experiments within Bihar provide useful models for replication on a larger scale, for instance the experience of Janani — a non-profit society involved in social marketing of birth control through a franchising system (see Box 5.5).

Janani networks a large number of rural medical providers (RMPs), and a smaller number of doctors in a two-tiered franchise structure. The franchisees receive training, advertisement of their clinics and discounted medical supplies through Janani, in return for a membership fee and a commitment to high-quality care and pricing norms. While Janani's commercial principles are sustainable, they do limit

the franchisee's ability to reach the poorest of the poor. Subsidizing the poor through instruments such as coupons, vouchers or credit, could be explored as possible options. This could be a significant opportunity for public-private partnership, whereby public subsidies are channeled through an existing franchise network.

Since a large section of the population, including the poor, seek treatment by private practitioners, some regulation of the private sector is required to ensure an acceptable quality of care. Also, given the proliferation of unqualified health practitioners, it may be useful to develop a cadre of health practitioners who can be regulated — the Jan Rakshak Sevaks (JRS) program, recently introduced in Madhya Pradesh, offers a possible model. A number of other ideas may also be applicable to Bihar. Programs like Rogi Kalyan Samitis (RKS) in Madhya Pradesh — emulated by Rajasthan in the

BOX 5.5 THE JANANI EXPERIENCE IN BIHAR

Janani was formed in 1995 as a non-profit registered society with a mandate to initiate social marketing of birth control in the most vulnerable states of the country. The Janani program in Bihar, started in 1996, has a social marketing component, which sells pills and condoms, in addition to a social franchising network. According to Janani, the biggest challenge that the family planning program faces is the lack of interest and motivation among providers, rather than the lack of demand. To address this challenge, it adopts the following strategies: (a) a plan based on economies of scale to expand its network widely, by focusing on activities that can be easily replicated and monitored, so that quality products can be delivered at lower than market costs; (b) a strategy that focuses on commercial principles, such as competition and brand promotion to make the program sustainable.

These strategies are implemented through a two-level franchise consisting of a network of rural medical providers (RMPs) called Titli Centers and a network of qualified doctors (with existing private clinics in regional towns) who are franchised as Surya Clinics. Both facilities benefit from extensive media promotion of the Janani brand identity and logo, and support through supplies from Janani-designated distributors at below-market prices. In the Titli Center program, two RMPs are selected from each village and trained at one of six regional centers to ensure competition. Each center provides family planning facilities and some ante-natal services, subject to regular monitoring for quality, and pays an annual franchise membership fee of around \$10. A survey conducted in 2000 found that RMPs join the program for professional advantage: 66% reported increases in overall clients and 37% reported a rise in the reputation of the practice. Each group of 20-30 RMPs is linked to one qualified doctor with a franchised Surya Clinic. RMPs refer patients to Surya Clinics for a number of procedures and receive a commission on each referral. In return for the services received — including brand recognition and referrals — from being part of the Janani network, the clinics must conform to norms of quality of care and pricing that are fixed by Janani. As of March 2001, there were 8,756 Titli Centers — 83% of which had made their second annual membership payment during the first quarter of the year — and 204 Surya Clinics operating in Bihar.

Janani has three major sources of income: (i) foreign grants, local grants, and its own revenue from sales; (ii) services at its own clinic in Patna; and (iii) membership fees from Titli Centers. In fiscal 2001-2002, foreign grants and own revenue accounted for about 75% and 20% respectively of its total income of US\$3.7 million. As Janani's operation expands, it is becoming more effective. This is being reflected in the cost of non-clinical product/clinical product delivery per CYP, which has almost halved from Rs. 233 (\$4.96) in 2000 to Rs. 119 (\$2.53) in 2002.

BOX 5.6 PALIGANJ – AN EXPERIMENT IN COMMUNITY MANAGEMENT OF IRRIGATION

The Paliganj experiment has involved the turning over of irrigation management duties from the public sector (the Water Resources Department or WRD) to the water users themselves. This is in conjunction with the Government of India's National Water Policy (1987), and the Government of Bihar's Irrigation Policy (1993) which states that farmers' organizations will be set up to take over the management of irrigation systems. What sets the Paliganj experiment apart is the process by which water user associations were formed, well before the official policy intent was announced in the state. This began in 1989 when the Water and Land Management Institute (WALMI) – a local government-sponsored training and research institute – organized a program to study and improve the performance of the canal network.

The important steps included: (a) gaining the support of initially hostile farmers; (b) identifying key constraints on irrigation performance from the farmers' perspectives; (c) facilitating the formation of a farmers' organization at the distributory and field-level channels and the development of an operation and maintenance (O&M) work plan by farmers at the distributory canal level. The distributory committee, which consisted of one member each from all village-level committees, met every fortnight and formed a communication link between villages. The meetings focused primarily on the distribution of water which led to the removal of obstructions by farmers in the upper reaches. In 1997, spurred by success as well as the need to carry out further maintenance, an MOU was signed between the Paliganj distributory committee and the Government of Bihar, stipulating formal conditions of transfer: the committee would retain 70% of water charges for the O&M of the system and deposit 30% with the treasury.

By 2000, substantial improvements were visible, as reported by an independently commissioned evaluation. These included an increase in irrigated area from 4000 ha to 6000 ha; an increase in the distributory canal capacity from 100 cusecs to its designed discharge of 180 cusecs; a decrease in the number of breaches and obstructions in the canal and greater confidence about the timeliness of water; an increase in yields; and the construction of permanent field channels in 17 villages till then. Thus overall, the experiment has been one that the Government of Bihar is justifiably proud of. A major concern however remains about the low collection of water charges, despite the raising of the rates and efforts to bring more farmers into the net. Some other questions remain unanswered, mainly due to the absence of data. Though poverty reduction was not an explicit objective of the initiative, it will be important to document the extent of its poverty-reducing impact. Irrigation may have differing impact on the poor depending, for instance, on their position along the distribution system and their ability to complement irrigation with other agricultural inputs. Second, the initiative requires further investigation of the factors determining the extent of cooperation between village members, especially those differentiated socially and spatially across the distribution system. This is critical for community-driven initiatives to succeed in the difficult context of Bihar.

Finally, there is the question of replicability: a unique ingredient in the Paliganj story was the substantial involvement of the WALMI staff through the initial phase. They stimulated the farmers to take responsibility for canal management and, as a recognized government body, helped ensure cooperation between the WRD officers. Other factors in the state are more broad based and conducive to success: the overall political backing that participatory irrigation management is receiving, and the low level of court cases on irrigation service delivery in general which lowers the resistance to innovations, such as the Paliganj management transfer.

form of the Medicare Relief Societies initiative — help resolve the shortage of resources faced by many public facilities and facilitate decentralized administration. Expanding the Janani model to incorporate health care beyond the existing fertility-related services — utilizing public subsidies through a network of franchised health providers — is another experiment with the potential to succeed.

Before introducing any broad-based reforms in the existing health care system in Bihar, considerable preparatory work is needed — identifying strengths and weaknesses in the system, and looking for opportunities. Among the key issues are the structure of incentives and sanctions, procurement, supplies and logistics management — particularly procurement and timely supply of drugs to health care facil-

ities. Proper maintenance of equipment and physical infrastructure is also a critical issue, where experiments in public-private partnership such as the RKS and Janani models may play a positive role.

While public-private partnership offers some avenues for improving service delivery, the inherent dichotomy in the private sector, between the social objective of providing public goods at affordable cost and remaining financially sustainable, can limit the extent of services rendered through such an institutional model. Ultimately, large-scale delivery of a range of health services to the weakest sections of society will need a public sector that functions efficiently. This does not however mean that the public sector has to take over the entire system of service delivery — rather, it implies that the state can complement its role by facilitating delivery mechanisms that leverage partnerships with the private sector, NGOs and communities, while targeting subsidies to those who cannot pay for the cost of services. Ongoing efforts, such as the Bihar Education Project and Janani, and more broadly, the structural changes envisaged through decentralization offer opportunities for such a transformation.

Involving Communities in Service Delivery

At this stage it is possible to re-examine the roles that communities can play in service delivery. While the discussion so far has focused on the potential roles for communities in health and education — where the DPEP initiative is a significant example — it is instructive to look at an experiment in rural Bihar that has met with success in managing irrigation resources. The Paliganj experiment, which involved turning over irrigation management duties from the public sector to the water users themselves, has yielded significant benefits — increase in irrigated area, greater availability of water, better maintenance of water courses and a consequent rise in yield and, especially, the process by which water user associations were formed, inducing cooperation among local farmers (see Box 5.6).

This experiment offers valuable lessons on how communities can be motivated to actively participate in the management of a public good to bring about improvement in services. These lessons apply to the management of irrigation resources

BOX 5.7 MID - DAY MEALS SCHEME IN INDIA

The Mid-Day Meal Scheme entitles every child up to Class V to 3kg of wheat or rice per month, at the rate of 100 grams a day, free of cost. Expected to act as a demand-side incentive to enrollment and retention with positive nutritional and health impacts, the scheme began with the support of the center in 1995, where states were left with the option of serving pre-cooked or cooked foods.

In November 2001, the Supreme Court of India directed all states to provide cooked meals in all government and government-aided primary schools, within a period of three months. While the states are at different stages of success in implementing the scheme, and some have missed the deadline, Bihar is one of two states yet to initiate the scheme. Despite its poor attendance (and nutrition) levels, the state pleads severe budgetary and capacity constraints in the implementation of the scheme.

Though the grain is available from the center free of cost, Bihar, like other states, will need to marshal the physical infrastructure and human capital to transport and store grain, cook grain and monitor quality and prevent pilferage.¹⁰ As Dreze and Goyal (2003) point out, “[a]ll primary schools need a cooking shed, and most cooks need a helper. Many schools also require better utensils, storage facilities, water supply, and related facilities. Adequate infrastructure is particularly crucial to avoid the disruption of classroom processes, and also to ensure good hygiene.” Tamil Nadu, where the scheme has been most successful, has had a 20-year head start on the rest – with a state-sponsored mid-day meal scheme that has significant budgetary allocation, a vast network of nutrition centers and well-trained staff.

It is also important to understand the pitfalls of a badly implemented mid-day meal scheme. Recent reports of mid-day meal poisoning in Karnataka where children had to be hospitalized (Indiainfo.com, July 5), and reports from Chattisgarh where meals are cooked in extremely unhygienic conditions with help from students, strengthen the case for a careful examination of the logistical, financial and management requirements of this scheme to attain its potentially high benefit.

and can be replicated on a wider scale. An analysis of its success and the challenges faced will indicate how cooperation between community members can be induced with the right incentives — lessons that may apply for adopting similar models to manage a range of services, including health, education and sanitation.

Improving Outcomes through Demand-side Incentives

Recalling the WDR-based framework, demand-side incentives can play a potentially important role in improving education and health outcomes. While improving the availability and quality of service delivery is of prime importance, in many cases it may not be worthwhile for the poor to incur costs in terms of time and money to avail of these services. Thus, the decision to send a child to school can be affected by the consideration that this reduces the time the child could spend working to supplement family income or helping with domestic work.

Recognizing this a number of countries including Bangladesh and Nepal have introduced schemes that provide incentives to children, particularly girls to enroll and stay in school. In India, the Mid-Day Meal Scheme for feeding school children, introduced in some states and since prescribed by the Supreme Court of India as compulsory for all states, qualifies as a demand-side incentive (see Box 5.7). It also serves an additional, equally important function — supplementing the nutrition of children.

In Bihar, where school attendance is low and malnutrition is high, both objectives are crucial. But questions still remain about the state's financial and institutional capacity — in terms of the demands placed on infrastructure, logistics and management — to implement the scheme effectively (see Box 5.7). On the state's part, solutions to capacity problems lie in the ability to adopt innovative approaches — for instance, linking the administration and monitoring of the program with local-level institutions, like those mobilized by the political decentralization process or the DPEP.

Poverty Alleviation in Bihar: Policies and Constraints

The discussion so far has highlighted the salient issues in poverty and human development in Bihar, as well as outlining policy challenges in improving

these outcomes. Despite some reduction in consumption poverty in recent years, poverty remains endemic in Bihar — especially in rural areas, and among disadvantaged social groups, the landless and marginal farmers. Human development — measured by health and education indicators — has showed little progress especially in school enrollments, maternal mortality and immunization rates, with wide disparities across regions, caste and economic groups.

While some areas for policy intervention and mechanisms through which service delivery to the poor can be improved have been explored, a critical component of a poverty reduction strategy — programs that directly seek to improve the income and consumption of the poor — remains to be examined. In Bihar, as in other states that are lagging behind, centrally sponsored schemes and the public distribution system form a substantial part of an anti-poverty strategy, and identifying the constraints in the operation of these schemes would point the way towards more effective poverty reduction. A useful starting point in this exercise will be the Tenth Five Year Plan document for Bihar, which provides the framework for anti-poverty strategies for the next five-year horizon.

Bihar's Tenth Five Year Plan

Bihar's Tenth Five Year Plan document clearly articulates the state's objectives with respect to poverty alleviation, and focuses on poverty alleviation programs as a means to “generate possible productive employment” and to enable the “lifting of a sizeable proportion of people above the poverty line”. The plan also states that poverty-reduction programs would be “given the required priority in investment and would be integrated with the relevant sectoral plan programs.” In particular, for (self) employment schemes, a “cluster approach” has been emphasized alongside the training of beneficiaries and the provision of marketing and infrastructure support. These are centrally-sponsored rural development schemes. Additionally, an essential component of the anti-poverty strategy in all states including Bihar is the PDS — the public distribution system — the largest social safety net program targeting the poor.

Other points in the Tenth Five Year Plan that merit mention, and reflect Bihar's diagnosis of the determinants of poverty, include the creation of rural infrastructure, the initiation of a horizontal shift in

income distribution in favor of the poor, and the strengthening of local institutions such as PRIs and cooperatives. In the education sector, the goal is stated as universal primary education and the strengthening of part time formal and non-formal education. In the health sector, the focus is on the consolidation of existing infrastructure for rural health services, including the modernization and upgradation of hospital facilities and preventive medical centers; and enlisting the cooperation of voluntary agencies and private practitioners for effective implementation of family welfare programs.

The Tenth Five Year Plan allocations for Bihar and some comparator states (Table 5.4) show Bihar's allocation as high relative to the others states — comparable to Andhra Pradesh, much higher than Karnataka and Orissa, although substantially lower than allocations for Uttar Pradesh.

Constraints to utilization of plan allocations

These outlays (for centrally sponsored schemes) include contributions from both the centre and the state (usually in a 75:25 ratio). Despite these fairly high allocations, the performance in the Ninth Five Year Plan (1997-2002) (Table 5.5) shows that Bihar is not always able to utilize the pool of allocated resources. Also, all money allocated to the state may not be released by the center. On average, only

65% of the allocation to Bihar in the Ninth Five Year Plan was released.

This shortfall in funds released is largely due to institutional constraints imposed by both the center and the state. Scheme funds are released in two installments before a set of conditions imposed by the center are fulfilled. In schemes where funds flow directly to the districts, the second installment to the district from the center is sometimes released as late as March, close to the end of the financial year, caused either by the lack of proper certification from the state or delay at the center (see Chapter 3).

Late releases need not be a serious constraint if subsequent allocations are not contingent on their utilization by the end of the same financial year. However this is not the case: districts with opening balances of more than 15% as on 1 April (beginning of the new financial year) suffer cuts in resources proportional to the excess they "carry over" from the previous year. Thus districts cannot use large opening balances to compensate for late releases, leaving them with a very small period within which to spend the money. When they fail to do so, the following years' installments are cut, further installments get delayed, and the vicious cycle perpetuates. Thus historically, Bihar has had high deductions. For example, in 2002-2003 in the case of the Centrally Sponsored Rural Housing Scheme alone (known as the Indira Awaas Yojana) Bihar lost Rs.72 crore of its full Rs.328 crore due to excess

TABLE 5.4 TENTH PLAN PROJECTED OUTLAYS (IN RS. LAKH)

Tenth Plan projected outlays (in Rs. lakh)	Bihar	Andhra Pradesh	Karnataka	Orissa	Uttar Pradesh
Rural Development					
Special Programs for Rural Development:					
(a) Integrated Rural Development Program (IRDP) & allied programs.	12533	338560	15876	8181	65 000
(b) Drought Prone Area Program (DPAP).	1167	0	3792	550	10000
(c) Integrated Rural Energy Program (IREP).	0	400	2937	123	3000
Rural Employment					
(a) NREP/Jawahar Rozgar Yojana (JRY).	71083	47953	11554	3942	310000
(b) Other programs (like EGS etc.).	44000	0	8059	0	0
Land Reforms	17974	658	2484	1258	2200
Other rural development programs (incl. Community Development and Panchayats)	266893	71636	178070	40437	322591
Total	413650	459207	222772	89791	712791

TABLE 5.5 RESOURCE ALLOCATION BETWEEN THE CENTER AND THE STATE (IN RS. LAKH)

Scheme	Ratio		Sanctioned		Total sanction	Released		Total release	Release/ Sanction (%)
	Center	State	Center	State		Center	State		
JRY/JGSY	75	25	134535	39081	173617	128217	30220	158437	91
IRDP/SGSY	75	25	56727	33391	90118	28341	13579	41920	47
IAY	75	25	148695	45814	194509	111195	35376	146572	75
TRYSEM	50	50	637	1454	2091	636	393	1029	49
DWACRA	50	50	1808	3617	5425	847	513	1360	25
EAS	75	25	85054	26832	111885	89146	26795	115942	104
Average = 65									

carry over from the previous year. Bihar is at a further disadvantage because of its peculiar seasonality where there is almost no work during the four monsoon months (June to September) when flooding is particularly severe. This makes it hard to meet the Government of India's expenditure criteria in some cases and provide the required "utilization certificates" of first installments. In fact, by the time that states in South India have used their funds, Bihar just begins using its allocation.

In cases where the Government of Bihar receives funds from the Government of India but is unable to release it to the implementing department in the same financial year, it asks the Government of India for "revalidation": the permission to spend that money in the next financial year. Although some other states release funds to their departments in subsequent years without going through the formality of seeking approval from the Government of India, interviews with officers in Bihar suggest that they are more cautious. These formalities are time consuming and lead to further delays.

Apart from limiting the pool of funds available to the state, there are also irrational performance incentives operating within the current system. Funds are released to the districts on the basis of utilization rates. Thus if a few blocks within a district under perform, they choke funds to the entire district. The same applies at the district level: District Rural Development Agencies (DRDAs) that perform badly cut into Bihar's total allocation and those that perform well cannot achieve higher allocations. In contrast, for allocations at the national level, unutilized resources can be redistributed to other states.

Procedural issues in the state also lead to delays in expenditures. In other states, a decentralized system

enables DRDA funds to be audited at the district level; in Bihar, although centralization of audit formalities was introduced three years ago, it is the Secretariat that decides who audits the districts. This leads to delays and sometimes suspicions of favoritism. Secretariat procedures in the state are also complicated. Further delays are caused by an executive instruction which states that all new and continuing plan schemes exceeding Rs 25 lakh must be approved by an Empowered Committee comprising the Development Commissioner, Finance Commissioner and the concerned Administrative Secretary. For instance, in 2002-03 in the case of the National Old Age Pension Scheme (NOAPS), the Empowered Committee's approval for the first installment came in October 2002, the Cabinet approved it in January 2003, and the Government of India was requested to release the second installment, which came on 29 March 2003. For funds to reach the districts, approval of the state's Empowered Committee and Cabinet was required again. With only two days to go before the financial year ended, this was not possible, so the old age pension funds did not reach the districts.

Translating Spending into Outcomes

Beyond releases versus sanctions, however, is the issue of how funds reaching the state are directed to the target beneficiaries. Comprehensive studies on the impact of centrally sponsored schemes are scarce — the NSS does provide substantive information on the PDS which is the most important social safety net program in the state.

Targeting of the poor by the public distribution system in Bihar

The Public Distribution System, through which foodgrains are distributed to consumers at pre-

TABLE 5.6 PERCENTAGE OF HOUSEHOLDS WITH ACCESS TO PDS/TPDS SHOPS BY POVERTY STATUS

State	Above poverty line		Below poverty line		Total	
	1993/94	1999/00	1993/94	1999/00	1993/94	1999/00
Bihar	3.4	6.1	2.9	11.3	3.2	7.8
Uttar Pradesh	3.4	6.5	2.7	12.5	3.2	7.9
All India	26.4	30.5	25.3	38.3	26.1	31.9

Note: APL and BPL classification based on official poverty line estimates.

Source: "India DPR: Agricultural and Rural Development" Table 3.1'

determined prices, was designed to provide food security to the poor in an environment of wide-spread poverty and limited market demand. This was combined with a policy of procurement of food from farmers at cost-plus support prices in an effort to protect farmers from the vagaries of the market. These policies are complementary: first, increases in food supply without market demand can lead to low prices for farmers; and second, price support operations can result in excessive stocks in the absence of a food distribution program.

However, today the Government of India is in a quandary: grain reserves are far in excess of optimal levels necessary to meet price stabilization objectives. The choice is between lowering the issue price of grain (adding to the subsidy) or lowering/keeping the procurement price constant (politically dangerous). This situation has been fuelled partly by a series of good monsoons in the 1990s leading to high levels of output, and partly by the introduction of the Targeted Public Distribution System (TPDS), introduced in 1997 to reduce the food subsidy bill for the "non-needy" and serve only below-the-poverty-line (BPL) families. A distinction between BPL and APL (above the poverty line) meant that APL families could access grain at a higher price (the "economic cost" of food). The substantial increase in the price for APL families led to a reduction in the off-take of grains in the APL category, which in turn led to a fall in the overall off-take and consequent accumulation of food reserves.

The large price gaps between BPL and APL households also have important implications for targeting benefits and the leakages from the system. While reduced prices for BPL households could increase their participation, large price gaps may increase the incentive for leakage: APL households would then have the incentive to purchase foodgrains at BPL prices. Thus, even if the prices for APL households increase, the participation of APL households might also increase.

Table 5.6 indicates that while the participation of BPL households in Bihar did increase from 2.9% to 11.3% during 1993-94 to 1999-00, it is still much lower than the 38.3% for all India. Despite price increases, participation of APL households also increased from 3.4% to 6.1% during the same period. This happened despite the reduction in off-take under the APL category.

Table 5.7 shows the targeting accuracy of the PDS and TPDS by looking at undercoverage and leakage. Undercoverage is the proportion of households without access to PDS/TPDS among all BPL households, while leakage is the proportion of APL households with access to PDS/TPDS. These two measures often proceed in opposite directions. For example, if the government increases the budget for PDS, undercoverage is likely to reduce, but leakage is likely to increase, resulting in negligible net improvements in targeting. While reduction in undercoverage would have the obvious benefit of including more of the poor, a reduction in leakage is probably equally crucial to the goal of poverty alleviation. With a fixed budget, leakage to undeserving households must necessarily reduce the amount of subsidy available to the truly poor, resulting in the program having less than its potential impact on poverty.

Table 5.7 indicates that TPDS somewhat improves targeting for the poor as compared to PDS. Undercoverage went down from 97% to 89%, while leakage also reduced from 58% to 46%. However, the high rate of undercoverage implies

TABLE 5.7 TARGETING ACCURACY OF PDS/TPDS IN BIHAR

	1993-94	1999-00
Undercoverage (%)	97	89
Leakage (%)	58	46

Note: Undercoverage and leakage are computed based on Table 6 and headcount indices. Undercoverage is the proportion of households without access to PDS/TPDS among all BPL households. Leakage is the proportion of households above poverty line among all households with access to PDS/TPDS.

TABLE 5.8 CATEGORY-WISE PARTICIPATION RATE OF HOUSEHOLDS (BY COMMODITIES)

	Rice	Wheat	Sugar	Kerosene
Caste group				
U/M caste	1.7	1.7	63.7	83.6
Backward agr.	5.3	6.0	63.6	91.0
Backward other	11.0	12.9	58.9	84.8
SC/ST	13.3	18.1	42.7	78.6
Muslim	2.2	8.6	58.1	83.6
Land class				
0	12.6	15.8	46.5	78.6
0 – 0.5	5.9	10.2	54.3	85.4
0.5 - 1.2	4.7	6.8	63.7	88.3
1.25 – 2.	2.6	5.2	69.9	90.3
2.5 - 5.0	2.2	3.4	68.7	88.7
5.0 – 10.	0.0	0.0	62.6	85.3
> 10.0	0.0	0.0	85.0	100.0
Quintile group				
1	9.6	13.2	45.6	84.8
2	12.4	16.3	54.6	83.7
3	7.9	13.2	60.8	83.3
4	4.0	4.6	60.9	81.7
5	3.2	3.5	59.8	87.0
Total	7.4	10.1	56.5	84.1

Source: Srivastava (2003).

that the poor's access to TPDS is still very limited. Moreover, the high leakage rate suggests a significant loss in benefits from the program for the poor, relative to its potential.

Secondary literature seems to support this. Mooij, in her study of the PDS in Bihar, notes that a majority of the poor do not have cards entitling them to BPL foodgrains. The bureaucracy is responsible for the distribution of these cards. The Government of India regulations state that gram panchayats and gram sabhas should be involved in the initial identification of the eligible families (Mooij, 1999). In the absence of these institutions, cards are sent to the district magistrates, who in turn pass them on to subdivisional officers. The cards then reach lower rank officers, often ending up with PDS dealers themselves (Ibid.). However, the PDS dealers keep these cards and siphon off BPL grains for sale in the black market. Mooij also finds evidence that there are fixed amounts that PDS dealers have to pay the food department, who are also sometimes involved in black marketing.

Apart from the NSS, another source of information on the impact of poverty alleviation programs

in Bihar is the '1998 Living Conditions Household Surveys (LCHS)'. This survey indicates that a significant number of rich households used the TPDS; 24% of households in the eligible list comprise households from the top two consumption quintiles.

Table 5.8 indicates the participation rate of households by commodities. Rice and wheat are purchased from the PDS by a very small number of households (7.4% and 10.1% respectively), as compared to 56.5% for sugar and 84.1% for kerosene. The poorer households are more likely to purchase foodgrains from the PDS shop, with the better-off households more likely to purchase sugar from these shops. Kerosene was purchased in similar proportions by the poor and non-poor. Further analysis of the quantities purchased showed that the better-off households were likely to exceed their quota of rice and kerosene, while other households purchased these commodities, on the average, at levels lower than the quota.

Though not as comprehensive as the NSS, the LCHS also provides a glimpse of how other centrally sponsored schemes, discussed earlier, are functioning.

The Integrated Rural Development Program (IRDP)

The IRDP was launched in 1979 to provide rural poor households with subsidized credit for productive investments through commercial banks. The IRDP, which has been criticized for mis-targeting, was merged with several smaller self-employment programs to establish the Swarnajayanti Gram Swarozgar Yojana (SGSY) in 1999.

The LCHS shows that this program reached a significant share of the population (around 10 %), but the targeting was very poor. In terms of social groups, the coverage of households from the upper castes was almost the same as that of scheduled castes and scheduled tribes (SC/STs) (around 10%). The coverage of different consumption groups by IRDP illustrates such mis-targeting even more prominently. The coverage of the richest quintile is 13.1%, while that of the poorest quintile is 8.3%.

The LCHS indicates several other characteristics of the program. First, mis-targeting in terms of distribution of loans was also prevalent. Although the average loan amount was very small (Rs.7228), households in the richest quintile received almost twice the loan amount compared to those in the poorest quintile. Second, almost 80% of households paid bribes to receive loans from the IRDP. The amount of bribes paid was higher for borrowers in the poorest quintile than those in the richest quintile: The former paid 25% of the loan amount as compared to 17% in the latter case. Third, only 52.5% of the borrowers repaid their installments on time.

Wage employment generation and evidence of mis-targeting

The Jawahar Rozgar Yojana (JRY) and Employment Assurance Scheme (EAS) were the largest wage employment programs in 1997-98.

These rural programs were designed to provide paid employment to the poor and the unemployed, especially during the lean agricultural season, for maintaining and expanding public infrastructure.

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 programs that laid emphasis on generating jobs as well as infrastructure improvements. Under the JGSY, laborers are selected from the local unemployed or underemployed population, with preference for the disadvantaged, including members of ST/SCs, freed bonded laborers and the parents of child workers. As the JGSY has only recently been introduced, it is early to assess its performance. However, the experiences of the JRY program offer lessons that are likely to be useful for the JGSY.

An analysis of the LCHS shows only 1.4% of rural households in Bihar reported as working under the JRY or other public works, averaging 51 days. Further, mis-targeting is prevalent — as with allocation of employment programs in villages with diverse caste groups. In theory, as long as the selection of beneficiaries is carried out according to JRY guidelines, a greater number of employment programs should be allocated to villages with higher concentration of SC/STs. On the other hand, if it turns out that such villages in fact receive a smaller number of employment programs, there is some reason to believe that the process of selection and allocation can be captured by the local elite and politicians.

Table 5.9, based on LCHS data, indicates that as the population of backward castes (BCs) in a village increases, employment programs are more likely to be allocated to the village. Table 5.9 also indicates that villages with high BCs receive more money from employment programs.

TABLE 5.9 PROFILE OF EMPLOYMENT PROGRAMS BY POPULATION OF BACKWARD CASTES (BC)

Group of villages	% of villages with employment programs	Average amount of money allocated (Rs. 1000)
Low population of BC	16	25
Medium population of BC	25	36
High population of BC	50	75

Notes: 57 villages are included in the sample. These villages are classified into 3 groups according to the number of households belonging to backward castes.

Source: Survey of Living Conditions-Uttar Pradesh and Bihar, Village questionnaire, 1997-1998.

TABLE 5.10 PROFILE OF EMPLOYMENT PROGRAMS BY POPULATION OF SC/ST

Group of villages	% of villages with employment programs	Average amount of money allocated (Rs. 1000)
Low population of SC/STs	15	35
Medium population of SC/STs	39	54
High population of SC/STs	37	46

Notes: 57 villages are included in the sample. These villages are classified into 3 groups according to the number of households belonging to SC/STs.

Source: Survey of Living Conditions-Uttar Pradesh and Bihar, Village questionnaire, 1997-1998.

On the other hand, the population of SC/STs has no relationship with the allocation of employment programs to a village. Table 5.10 indicates 37% of villages with a high population of SC/STs have employment programs, while the same is true for 15% and 39% of villages with low and intermediate population of SC/STs, respectively. Table 5.10 also indicates that there is no clear correlation between the population of SC/STs and the amount of money allocated through employment programs.

Table 5.11 shows that a village with a high concentration of upper caste households is much more likely to have at least one employment program, while no correlation is found between the population of upper castes and the money allocated through employment programs.

However, caution must be exercised when interpreting these correlations because of other factors which are omitted, such as the population of other castes, which can have a strong correlation with employment programs. To separate the partial impact of each social group, a simple regression analysis is required.

The regression confirms the association between village caste characteristics and the distribution of employment programs. The first two columns of Table 5.12 report the results of Probit regressions of employment programs in a village. Table 5.12 indicates that the population of both upper and backward castes have significant positive association with the existence of employment programs, while population of SC/STs has a negative insignificant correlation with it. The last two columns of Table 5.12 report the results of Tobit regressions of money allocated to a village through employment programs. The results are very similar to the above: the population of BCs and UCs have significant positive correlations with the amount of money allocated to a village, while the SC population does not have any significant effect on it.

In summary, these results suggest that what is relevant for employment programs is the population of backward castes and upper castes. However, the analysis provides no more than indicative evidence. The weakness of this analysis is the assumption that the poor and socially disadvantaged in a village increase in tandem with the population of SC/STs. However, this need not necessarily be the case, given that almost 40% of SC/STs are not poor, and a substantial proportion of the BCs (and even UCs) are. This calls for further analysis, combining household survey data with village-level information used here.

The results provide preliminary evidence that, despite the primary objective of employment programs, households from SC/STs, who are socially disadvantaged and the majority of whom are poor, are disproportionately under-represented by employment programs. In 1999, the JRY was replaced with the Jawahar Gram Samridhi Yojana (JGSY), which stipulates preference for SC/STs. In this sense, the under-representation of SC/STs might be lowered under JGSY. However, for this new system to be successful in improving coverage among the poor and socially disadvantaged, official guidelines must be applied effectively on the ground, which — as the evidence indicates — has not necessarily been the case.

Strengthening Program Implementation and Service Delivery

The discussion in this section has revealed that Bihar is constrained in its poverty alleviation efforts in two ways: first, due to institutional constraints, it finds it difficult to draw money allocated to poverty alleviation goals; and second, the spending on poverty alleviation programs that does take place does not achieve its intended impact due to mis-targeting and possible mis-allocation of programs across villages. Evidence from the analysis suggests

TABLE 5.11 PROFILE OF EMPLOYMENT PROGRAMS BY POPULATION OF UPPER CASTES (UC)

Group of villages	% of villages with employment programs	Average amount of money allocated (Rs. 1000)
Low population of UC	28	53
Medium population of UC	22	17
High Population of UC	37	45

Notes: 57 villages are included in the sample. These villages are classified into 3 groups according to the number of households belonging to upper castes.

Source: Survey of Living Conditions-Uttar Pradesh and Bihar, Village questionnaire, 1997-1998.

that allocation of programs in the past are not consistent with the guidelines prescribed — in terms of targeting the poor and disadvantaged groups — and is likely to be influenced by local politics and caste-based patronage.

The fact that the state's poverty alleviation efforts are dominated by centrally sponsored schemes means that the first issue, that of institutional constraints, must be tackled collaboratively by the center and the states. India's Tenth Five Year Plan takes an important step in this regard: it explicitly recognizes that "lagging states" suffer institutional disadvantages which constrain their implementation of these programs:

"[The] successful implementation of development programmes requires adequate funds, appropriate policy framework and an effective delivery mechanism. Past mechanisms have suggested that availability of funds alone may be a necessary but not a sufficient condition for tackling the problems of poverty and backwardness. The determining factor seems to be the capacity of the [governments] to formulate viable schemes, and the ability of the delivery system to optimally use funds in a sustainable manner."

The special plan for Bihar in the Tenth Five Year Plan has identified priority areas, such as power, irrigation and watershed development and proposes innovative mechanisms to circumvent the constraints in the state's implementation and delivery of services. The newspapers report that the center proposes to release scheme funds through "non-governmental agencies" in the state (*The Hindu*, 2 July 2003). Such an approach may be viable since there is evidence to show that community mobilization through NGOs has proliferated in many districts. A mapping of SHGs by ADRI indicates that there were approximately 9000 women's SHGs in Bihar in 2001, which implies that one out of every four villages has a woman SHG. While the nature of civil society organizations varies between regions, there are many instances of success: (i) organizations of the poor have helped to reshape labor relations, fight for higher wages and land, especially in parts of central Bihar; (ii) collective action has helped secure traditional irrigation systems; and (iii) several NGO initiatives have successfully facilitated credit through establishing thrift and credit societies- for example, the NGO Adithi (agriculture, dairy, industries, tea plantations, handi-

TABLE 5.12 REGRESSION RESULTS OF MONEY AMOUNTS ALLOCATED THROUGH EMPLOYMENT PROGRAMS

	(1)	(2)	(3)	(4)
Population of BC	0.0019 (0.0006)**	0.0020 (0.0006)**	941.9 (306.0)**	954.7 (307.8)**
Population of SC/STs	-0.0002 (0.0010)	-0.0006 (0.0010)	-556.4 (649.2)	-492.3 (669.0)
Population of UC	0.0019 (0.0012)+	0.0020 (0.0012)+	909.6 (534.4)+	946.1 (545.5)+
Constant			-235.2a (83.6a)**	-195.9 a (137.3 a)
Observations	57	57	57	57

Notes: The first two regressions are Probit estimation, and the latter two regressions are Tobit estimation. Robust standard errors are in parentheses. "UC" refers to "upper castes"; "BC" refers to "backward castes"; "SC/STs" refers to "scheduled castes / scheduled tribes." + significant at 10%; * significant at 5%; ** significant at 1%; a) The unit of number is thousands.

crafts, and integration of women) works with 59,000 women and girls covering traditional fisherwomen, sharecroppers, home-based workers, saving and thrift activities, and adolescent girls and girl children. They promote income generation as well as delivery of services such as family planning and credit.

NGO activity in Bihar has pockets of success that provide models for replication and opportunities for partnerships between the public, private and NGO sectors. The election of local bodies in 2000 provides opportunities for implementation of programs through panchayati raj institutions with broader partnerships between local government and community organizations. A recent example of such a successful collaboration between the government (at the district level) and the community is the National Literacy Mission in Muzaffarpur district. A five-month intensive campaign was launched, spearheaded by a District Literacy Committee (comprising the District Collector, district-level local government officials, NGO representatives and private citizens) involving thousands of unpaid volunteers. Muzaffarpur has been recognized as the best performing district in the country as a result of this effort: an independent evaluation conducted by the Jaipur-based Indian Institute of Rural Management finds that 86.14% of the targeted 15-35 age group have turned literate, at a cost of Rs.43 per learner against the allotment of Rs.90.

Bihar can also emulate models from other states that face implementation challenges. A notable

experiment is the “Missions” model of Madhya Pradesh with its creation of institutions to facilitate coordination between village, district and state while simultaneously involving NGOs and private citizens to deliver key services. The experiment has been launched in education, health and watershed management. The Education Guarantee Scheme (EGS) has been the most successful. The collaboration between the state government, local body or panchayat and the community has been institutionalized through a clear definition of roles and responsibilities at each level: for instance the community, identifies the teacher, helps with infrastructure and operates the budgets, while the state government provides grants and teaching material. The EGS is reported to be highly successful, with improved access to schools, higher enrollments, improved learning outcomes and reduced gender gaps. Variants of the EGS have already been piloted in Rajasthan, Uttar Pradesh, Orissa and Haryana, and in 2001 the EGS was adopted by the GoI as a national scheme.

Finally, international agencies also have a role to play by building on community initiatives, providing technical assistance to improve and monitor capacity, or helping pilot cross-cutting schemes such as the mid-day meal. There is potential for these agencies to play the role of catalysts by creating opportunities for more broad-based scaling up of successful initiatives.

Notes

¹ This is after the state government introduced a scheme of providing an additional 40,000 non-regular or para teachers or Panchayat Shiksha Mitra (PSM) to all primary schools in the state, to be appointed on a contractual basis by the gram panchayats.

² SIEMAT (2000).

³ See Annex I: Table 15.

⁴ Consultations with government doctors are counted only when occurring in a government facility, thus excluding consultations with government doctors in the course of their private practice.

⁵ See Lanjouw and Ravallion (1999) for a dynamic benefit incidence analysis for India.

⁶ The construction of separate latrines for girls has had a strong effect on girls' enrollment in primary schools in Pakistan; in many countries, when the opening hours of health clinics and schools are more convenient for farmers, utilization increases..

⁷ School voucher schemes (e.g. Colombia's PACES) or scholarships (e.g. Bangladesh's Female Secondary School Assistance Program where schools receive a grant based on the number of girls they enroll) enable clients to exert influence over providers through choice.

⁸ Client participation can improve service provision through various mechanisms. The major benefit of EDUCO in El Salvador came from the weekly visits of the community education association to schools. Each additional visit reduced student absenteeism (due to teacher absenteeism) by 3%. In Guinea's revolving drug scheme, co-payments inspired villagers to mobilize against theft..

⁹ Educational reform in Karnataka, for example, is now presented within the document entitled “EduVision” outlining Karnataka's holistic vision and goals for this sector.

¹⁰ Subsequently since mid-2004, states can also claim the cost of conversion of foodgrains from the central government.

¹¹ “India DPR: Agricultural and Rural Development” Table 3.

Chapter 6

TOWARDS A DEVELOPMENT STRATEGY

This report has identified many development challenges facing Bihar as it struggles to deal with the burden of very high poverty rates, low levels of literacy, poor health indicators, and a high population growth rate. This needs to be seen in the context of its overall pattern of weak economic growth and adverse environment. Bihar's low growth rate is a major constraint in both its ability to generate resources to finance critical social and infrastructure services, and in the generation of economic opportunities for poor households. While poverty has been falling in Bihar, it continues to lag seriously behind other states in India. Without making concerted efforts to strengthen economic performance, Bihar runs the risk of slipping into a “poverty trap” of low investment, low growth, and deficient economic opportunity for households to improve their standards of living and emerge from poverty.

Despite these challenges, and the state's physical and financial constraints, there are many pragmatic and affordable policy reforms that can move the development agenda forward. For this, it is critical to place people and human development first, and thereby make economic and social development the primary objective of government policy. This requires re-examination of the role of government to identify ways in which it can better serve the needs of the people in: delivering core health and education services; building a strong investment climate to generate jobs and improve economic opportunity; establishing better infrastructure to connect people with markets; and withstanding the devastating impact of annual monsoon floods. Ultimately, the development strategy must aim to help lift standards of living, improve human well-being, and thereby eliminate poverty.

Elements of a Two-Pillar Strategy

The basic development strategy that is presented

here rests on two key pillars: (a) enhancing Bihar's growth performance by establishing a healthy investment climate to encourage entrepreneurship, investment, and the spread of improved technologies, particularly in the rural sector; and (b) supporting human resource development through improved quality and access to social services, particularly for the poor and socially disadvantaged communities.

The first pillar: Improving Bihar's growth performance and investment climate

A critical element of the development strategy suggested here is to strengthen Bihar's investment climate to attract productive resources and strengthen growth performance. Bihar faces many constraints to growth that are well documented—the devastating monsoon floods, low human development indicators, weak infrastructure, and inadequate mineral resources. A part of the medium-term growth challenge lies in strengthening human resources, which the second strategic pillar directly addresses. However, a great deal more is needed to boost economic growth performance, particularly in agriculture which remains central to Bihar's growth and poverty reduction agenda. The primary reason for low investment levels in Bihar (private projects under implementation in Bihar are by far the lowest in India) appears to be the state's very poor investment climate. This is due in part to physical constraints requiring time and resources, but also to institutional and public policy constraints where there is wide scope for improvement.

For improving Bihar's investment climate, the government should prioritise two strategic changes focusing on: (a) public provision of basic infrastructure services in the state, and (b) road infrastructure and water control. As nearly four-fifths of the state's population is engaged in agriculture and the rural economy, agriculture and related activities will

remain the backbone of Bihar's economy in the near term. The first priority — improving rural infrastructure, and strengthening agricultural extension with targeted R&D — can help boost the performance of agriculture, agro-industry, and related services (transport, storage, marketing, etc.), thereby helping reverse Bihar's weak agricultural growth performance and reducing volatility in rural incomes. This strategic shift towards core public infrastructure requires re-examining the basic role of the government, exploring alternative delivery mechanisms, and identifying areas where public presence may be low in priority or even counter-productive. The power sector is one such service where public subsidies have been costly, the service is poor, with scope for alternative approaches, including targeted privatization and community-based rural power cooperatives.

The second priority for strengthening the investment climate is improving law and order, and in so doing reversing the perception of persistent law and order problems. Although official statistics may suggest otherwise, negative investor perceptions of law and order problems are real, particularly that of organized crime targeting professionals. This additional sense of risk appears to be a serious constraint to investment and greater entrepreneurship and deserves the highest political attention.

The second pillar: Strengthening delivery of social services

The need for improved access to services is particularly acute in rural communities, where the quality and availability of services is the weakest and development indicators are the worst. Improving social service delivery requires three core relationships: first, the relationship between policy makers and service recipients (in rural areas these are primarily poor people) to make policies responsive to people's needs; second, the relationship between policy makers and service providers to ensure high standards of quality; and third, between end clients and service providers, to strengthen accountability mechanisms which help ensure that social services are actually provided, well targeted, and responsive to community needs.

Strengthening of the policy maker-provider-client relationship rests on a coherent policy framework, synchronising a vision for service delivery with appropriate resource planning, program implementation guidelines, and adequate administrative

capacity and supervision. This report has argued that to improve this relationship and to strengthen the accountability of service providers to their clients, it is necessary to enhance community involvement in their design and implementation. A promising example in Bihar is the District Primary Education Program, through which community groups are organized (Village Education Committees) to gain community involvement and provide a feedback mechanism to service providers and policy makers (see Box 5.2).

Another approach that enhances social service delivery is to expand the role of local governments. Since the local elections in 2001, Bihar has initiated the process of decentralization and strengthened panchayati raj institutions (PRIs), including measures to selectively shift the authority over resources down to the PRI level. However, using the PRIs to strengthen service provision and develop greater accountability to the local community is a long-term process. It will depend on the clarity of the policy framework, access to information, and local capacity building. An important agenda in Bihar is to build PRI capacity, and strengthen accountability mechanisms, moving in tandem with the downward delegation of responsibilities.

There is also considerable evidence from Bihar that innovative partnerships for the delivery of social services can be highly effective and can complement or substitute public services, particularly where public delivery mechanisms are weak. The experience of the non-profit registered society Janani in franchising rural medical providers and supporting a network of qualified doctors through its Surya Clinics is a case in point (see Box 5.5). Another example is the highly successful effort in Muzaffarpur District between the district government, local communities, NGOs and thousands of volunteers, to implement the National Literacy Mission targeting adult literacy. Muzaffarpur has been recognized as the top performer in the country, demonstrating the potential for highly successful development outcomes in Bihar when communities, the government, and the incentive structure are aligned. Exploring additional avenues for such collaboration, for example building on Bihar's extensive network of women's SHGs, is one method to better leverage public resources for securing effective service delivery and empowering local communities.

In addition to the improving delivery of core social

services, programs that improve the income and nutritional levels of the poor are critical to poverty reduction. These are mainly financed through central schemes, but the Bihar experience suggests that a large share of the resources allocated is not released due to administrative constraints. Moreover, a high proportion of resources used are poorly targeted, failing to reach the intended beneficiaries (e.g. wage employment schemes and PDS/TPDS supplements). This sharply reduces their effectiveness and points to the critical need to revisit and strengthen administrative mechanisms. Bihar's administrative difficulties need restructuring action to achieve: the right skill mix, make it meritocratic, delegate decision-making authority down to the field, and establish an incentive system which rewards successful program implementation and allows scope for innovative partnerships and approaches to succeed.

Implementing the Two-Pillar Strategy

To underpin this development strategy efforts to reform public finance and public administration will be essential. Implementing this twin strategy of strengthening core social services and improving the investment climate, including greater investment in core infrastructure, will require resources. As the report documents, Bihar faces severe fiscal stress. Although efforts have been made to shore up revenue collection, the tax base is weak, the debt burden is large, and rising interest, salary, and pension payments are squeezing out much-needed productive expenditure. Indeed, these cost pressures are likely to worsen in the future as public liabilities mount. In the near term, finding the resources to support this growth strategy will require using Bihar's existing resources more efficiently. The scope for doing this appears considerable. There is evidence of significant waste in public spending due to mis-targeting of social program expenditures, underutilization of centrally allocated resources, with potential scope for reallocating staff and budgets across government departments to secure a better spending mix. Efforts to identify savings and improve expenditure targeting will require revisiting the expenditure management process, careful prioritizing, and instilling incentives in government for better resource management — promoting both cost savings and better resource mobilization from state and national sources.

Bihar's poor utilization of centrally allocated program resources is symptomatic of deeper problems

in expenditure management and public administration. Admittedly there are physical constraints due to the lack of computerization and seasonal work stoppages induced by the monsoon. However the main causes appear to be weaknesses in the system of public administration. Underutilization of project funds results from antiquated procedural systems and Bihar's own "Rules of Executive Business" which lead to serious procedural delays. These include excessive centralization of decision-making, absence of downward delegation of authority required for day-to-day project management; paralysis of decision-making apparently due to fear of perceived impropriety and an incentive structure that does not reward proactive management.

Bihar's large administrative reform agenda is fundamental to both efficient use of public resources and also for improving many dimensions of government performance, most importantly the quality and effectiveness of core public service delivery — both infrastructure services that underpin the first development pillar, and social services that underpin the second pillar. A prioritized and practical strategy for tackling this agenda is recommended here, stressing that its success requires ownership by the political leadership and bureaucracy. A starting point is the reform of Bihar's antiquated procedural rules, which impede the downward delegation of decision-making authority and disrupt the flow of funds. With the reform of rules, secretaries and senior field officers need to have their efforts focused on policy and program implementation, requiring greater departmental autonomy over budgets, promotions, scheme approvals, etc. Filling secretariat and technical head vacancies, transparent rules for vigilance inquiries, and better two-way communication between field and secretariat staff are also needed. Finally, improving management of the government's legal caseload, which has become an extraordinary burden on senior officials, is a further priority. It is recommended that a well-defined system for managing the government caseload be instituted, a review of court management and administration be aimed at prompt disposal of cases, and consideration be given to alternative dispute resolution mechanisms.

The Road Ahead

While this report has attempted to analyze some of Bihar's main development constraints and formu-

late some basic policy recommendations, the coverage is by no means complete. Clearly, the issues raised here require considerable discussion and debate, which would benefit greatly from wider government engagement, as also with people directly affected by public policies and services—including the business community, civic groups, and communities. As part of a broad initiative to strengthen the development dialogue and place development first, consideration could be given to launching this process through high-powered committees, combining expertise from elsewhere with local knowledge, and inviting public debate. Analytical and strategic efforts can be focused in five areas: (a) improving Bihar's investment climate; (b) public administration and procedural reform; (c) strengthening design and delivery of core social services; (d) budget management and

fiscal reform; and (e) priorities in public law and order. Government efforts to explore opportunities for financial and technical assistance from national and international donor agencies seem promising.

Finally, this report has attempted to highlight the many success stories from Bihar that are far less known than its problems. The successes provide ample evidence that under the right circumstances development efforts in Bihar can not only be highly effective, but can also provide lessons for India and abroad. The COMFED dairy cooperative, Muzaffarpur's National Literacy Campaign, or the Paliganj Participatory Irrigation Management experience are examples of excellence. The challenge facing Bihar today is to build on these successes, draw lessons from them, and use them to push Bihar's development forward. ■

Annexure I

POVERTY IN BIHAR: TRENDS AND CORRELATES

TABLE I.1 POVERTY-GAP INDEX ESTIMATES (DEATON & DREZE -2002)

State	1993-94 (50th round)			1999-2000 (55th round)			Changes		
	Urban	Rural	Overall	Urban	Rural	Overall	Urban	Rural	Overall
Bihar	5.6	10.7	10.1	5	8.5	8.0	-0.6	-2.2	-2.1
Orissa	3	9.7	8.9	3	10.5	9.2	0	0.8	0.3
Punjab	1.1	1	1.0	0.4	0.3	0.4	-0.7	-0.7	-0.6
Tamil Nadu	4.5	9.1	7.5	2	4.6	3.7	-2.5	-4.5	-3.8
All India	3.7	7.0	6.2	2.3	5.2	4.5	-1.4	-1.8	-1.7

Source: Deaton & Dreze (2002).

TABLE I.2 DISTRIBUTION OF RURAL WORKING AGE POPULATION OF BIHAR BY PER CAPITA CONSUMPTION QUINTILE AND PRINCIPAL ECONOMIC ACTIVITY

	Agricultural Cultivation labor		Regular non-farm	Casual non-farm	Self non-farm	Other	Total
50th round (1993/94)							
Bottom	65.6	21.8	1.1	3.9	7.4	0.2	100
Quintile 2	53.0	30.9	2.6	3.3	10.0	0.2	100
Quintile 3	43.0	40.3	2.6	2.5	11.3	0.2	100
Quintile 4	32.3	48.4	4.2	1.9	13.0	0.1	100
Top	17.5	56.3	9.5	1.9	14.7	0.1	100
Overall	41.9	39.9	4.1	2.7	11.4	0.2	100
55th round (1999/2000)							
Bottom	54.5	25.2	1.1	6.9	12.1	0.2	100
Quintile 2	51.6	29.5	1.6	5.3	11.7	0.3	100
Quintile 3	41.9	38.1	2.4	4.0	13.5	0.1	100
Quintile 4	33.5	46.0	3.2	4.5	12.8	0.1	100
Top	23.5	51.2	8.7	2.8	13.3	0.5	100
Overall	40.4	38.5	3.5	4.6	12.7	0.3	100

Source: 50th and 55th round, NSSO surveys.

TABLE 1:3 DISTRIBUTION OF POPULATION IN BIHAR BY CONSUMPTION QUINTILE AND OCCUPATION OF HOUSEHOLD HEAD (URBAN)

Consumption quintile	Self-employment	Regular employment	Casual wage labor	Others
50th round (1993/94)				
Bottom	24.1	8.9	49.8	12.3
quintile 2	23.8	15.8	22.6	19.3
quintile 3	22.7	20.6	11.4	15.9
quintile 4	16.6	26.6	10.6	19.9
Top	12.9	28.1	5.6	32.6
% of population	39.8	38.8	11.6	9.8
Mean pc exp	305	417	230	433
55th round (1999/00)				
Bottom	19.5	9.0	53.5	14.9
quintile 2	26.4	12.4	23.7	12.6
quintile 3	21.6	19.1	17.4	19.3
quintile 4	20.9	24.2	4.6	23.1
Top	11.6	35.3	0.8	30.1
% of population	43.6	31.3	12.6	12.6
Mean pc exp	525	784	342	680

Source: 50th and 55th round, NSSO surveys.

TABLE 1:4 NOMINAL DAILY WAGES FOR CASUAL LABOR BY GENDER AND LOCATION (IN RS.) IN 1998

Gender	In the village			Outside the village		
	Agr. labor	Non-agr. labor	Total	Agr. labor	Non-agr. labor	Total
Male	27.9	37.5	29.5	49.5	55.5	53
Female	26.3	26.8	26.4	27.8	35	28

Source: Srivastava (2003).

Poverty and out-migration

In rural Bihar, the poor have limited livelihood means due to lack of land ownership, lack of education, and social discrimination. Under these circumstances, as many studies show, out-migration is a crucial survival strategy for the rural poor. Both the Census and NSS report that Bihar has the highest rate of gross inter-state out-migration in India.

Data on migration at the sub-state level is usually difficult to obtain and, if available, involve conceptual problems in identifying out-migrants. The 1998 UP-Bihar Living Conditions Survey, was unique in containing accurate and detailed information on migration in Bihar. Based on this survey, Srivastava (2003) shows a wide range of findings on out-migration in Bihar.

TABLE 1:5 PERCENTAGE OF HOUSEHOLDS WITH ABSENT MALE MEMBERS

Consumption quintile	
Bottom	32.5
quintile 2	25
quintile 3	20.6
quintile 4	23.3
Top	26.3
Overall	25.3

Source: Srivastava (2003).

TABLE 1.6 THE DISTRIBUTION OF ABSENCE OF MALE MEMBERS AMONG CONSUMPTION QUINTILE

Consumption quintile	>9 months	7 to 9 months	4 to 6 months	1 to 3 months
Bottom	23.5	49	20.4	7.1
Quintile 2	41.4	35.6	13.8	9.2
Quintile 3	45.4	26	16.9	11.7
Quintile 4	56.8	19.3	17.1	6.8
Top	64.9	21.1	3.5	10.5
Overall	47	30.2	13.8	9.1

Source: Srivastava (2003)Notes: Authors' computation based on Table 51 in Srivastava (2003).

Three facts emerge: first, 95 % of out-migrants were male; second, out-migration is the highest in the poorest and the richest quintiles (Table 5); third, the duration of out-migration from the poorest quintile tends to be shorter, as compared to the richest group (Table 6).

TABLE 1.7 PERCENTAGE OF REMITTANCES REPORTED TO CONSUMPTION

	North	South	Overall
SC/STs	2.9	2.4	2.7
All households	3	5.6	3.9

Source: Srivastava (2003).

Another important aspect of out-migration is remittance from migrants to households. Table 7 reports the share of remittances in consumption expenditure. It indicates this percentage is lower for SC/STs households, who are likely to be poor, for North and South Bihar alike. This may be so because out-migration from poorer households tends to be temporary, while out-migration from richer households tends to be much longer.

TABLE 1.8 LAND OWNERSHIP AND OCCUPATIONS

Land own (ha)	Agricultural labor	Cultivation non-farm	Regular non-farm	Casual non-farm	Self	Other	Total
50th round (1993/93)							
No land	70.3	1.6	6.9	5.7	15.2	0.3	100
0<*<=0.4 ha	67.2	11.4	3.1	2.8	15.4	0.2	100
0.4<*<=1 ha	17.7	66.8	3.8	3.1	8.4	0.2	100
1<*<=2 ha	7.0	81.7	4.4	1.4	5.5	0.1	100
2<*<=4 ha	1.9	88.1	5.9	0.0	4.0	0.0	100
>4 ha	2.3	87.7	7.1	0.0	3.0	0.1	100
Overall	41.9	39.9	4.1	2.7	11.4	0.2	100
55th round (1999/00)							
No land	76.6	2.6	2.1	6.2	12.3	0.2	100
0<*<=0.4 ha	57.1	16.3	3.5	6.2	16.6	0.3	100
0.4<*<=1 ha	9.5	75.1	4.0	2.8	8.4	0.3	100
1<*<=2 ha	2.1	87.6	3.2	0.7	6.1	0.4	100
2<*<=4 ha	0.6	87.6	5.0	1.1	5.7	0.0	100
>4 ha	1.7	86.4	5.7	0.5	5.4	0.3	100
Overall	40.4	38.5	3.5	4.6	12.7	0.3	100

Source: The NSSO 50th and 55th round Surveys.

BOX 1.1 LAND REFORM IN BIHAR

The close link between poverty and landlessness has been continuously discussed in India's political arena since independence, with rural land reform being placed high in the policy agenda. Land reforms in Bihar can be classified into three main categories according to their main purpose: abolition of intermediaries; ceilings on landholding; and tenancy reform to protect tenants in terms of rents and their legal status.

In 1950, Bihar abolished the intermediaries between landlords and cultivators who worked under feudal lords, who in turn extracted very high rent from tenants. The implementation of this act was very slow in Bihar, though the abolition of intermediaries has been proved to achieve limited and variable success in protecting small landholders if implemented properly (Besley and Burgess 2000).

The first land-ceiling act was passed in 1961 with subsequent amendments in 1973 and 1976. Under the ceiling act large landholders are required to distribute surplus plots of land to the landless. The imposition of a ceiling on land ownership achieved a certain level of success. For example, it increased the number of marginal and semi-medium farmers while decreasing the number of large landholders. However, the extent of success has been very limited. In Bihar, only 1.53 percent of cultivable land was acquired and distributed in 1986, of which the surplus land accounted for 20 percent (Sharma 1995).

In order to enhance tenure security, tenancy reforms have been carried out since 1963. Nevertheless, the status of tenants in Bihar has been vulnerable in terms of rents and security of tenure despite the series of tenancy reform acts. Rural Bihar has a fairly significant proportion of cultivated land under tenancy arrangements (nearly 25 percent of cultivated land in 1998 (Srivastava 2003)). The majority of tenants pay half the gross output to landowners although the statutory provision with regard to rent is 25 percent. Furthermore, the tenancy reforms appear to have worsened the security of tenants. After a series of ceiling acts and tenancy reform acts, the system of tenancy became almost entirely concealed and informal. Concealed tenancy reduces the scope of greater land access through rental markets, the tenant's bargaining position, and the ability to enforce contract terms.

As illustrated above, the implementation of the various land reform measures has been very slow and unsatisfactory. Such poor implementation can be attributed to lack of political will, up-to-date land records, fair legal systems, and organizations representing the poor peasants and agricultural labor (e.g., Sharma 1995, Besley and Burgess 2000).

TABLE HISTORY OF LAND REFORM IN BIHAR

Year	Title	Description	Class
1950	Land Reforms Act	Abolition of zamindari; implementation of this act very slow.	2
1957	Homestead Tenancy Act	Confers rights of permanent tenancy in homestead lands on persons holding less than one acre of land.	1
1961(amended 1973)	Land Reforms Act	Prohibits subletting, preventing sublettee from acquiring right of occupancy.	1
1961	Land Ceiling Act	Imposition of ceiling on landholdings of 9.71 - 29.14 hectares (1960-72) and of 6.07-18.21 hectares (after 1972).	3
1973(amended 1982)	Act 12 (Amendment to Land Reforms Act)	Introduced provisions relating to the voluntary surrender of surplus land.	3
1976	Act 55	Provided for the substitution of legal heir; ceiling area shall be redetermined when classification of land changes; ordered that the landholder necessarily retain land transferred in contravention of the Act.	3
1986	Tenancy (Amendment) Act	Provides definition of personal cultivation; provides for acquisition of occupancy rights by under raiyats.	1

Source: Besley and Burgess (2000) "Land Reform, Poverty Reduction, and Growth: Evidence from India," Quarterly Journal of Economics
 Notes: The extent of land reform acts are classified into four categories (1 = tenancy reform, 2 = abolition of intermediaries, 3 = ceilings on landholdings).

FIGURE I.1 NUMBER OF COWS, BUFFALOES AND GOATS PER HOUSEHOLD

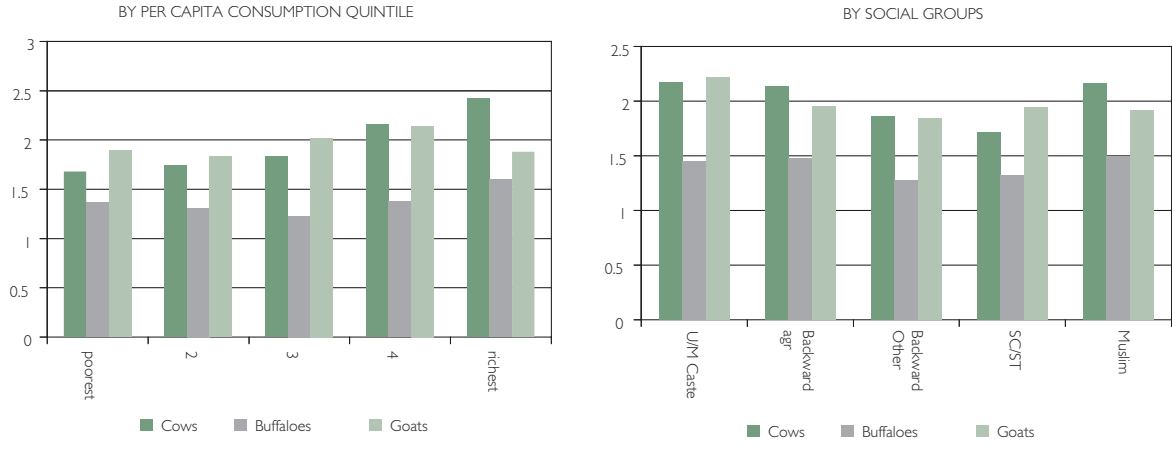


TABLE I.9 DISTRIBUTION OF POPULATION BY CONSUMPTION QUINTILE AND EDUCATION LEVEL OF HOUSEHOLD HEAD

Rural	50th (1993/94)						55th (1999/00)					
	Illite- rate	Below primary	Primary	Middle	Secon- primary	Higher	Illite- rate	Below primary	Primary	Middle	Secon- dary	Higher
Bottom	78.2	10.4	4.4	4.4	2.4	0.2	71.3	12.9	3.6	6.9	4.5	0.8
Quintile 2	67.0	11.4	6.9	8.0	5.2	1.4	64.6	13.7	6.5	7.3	6.3	1.6
Quintile 3	61.6	13.2	6.1	11.0	7.1	1.1	59.9	14.8	6.2	8.7	8.3	2.2
Quintile 4	50.5	13.7	8.3	13.3	11.4	2.8	50.3	15.5	8.2	12.0	12.1	1.9
Top	37.9	14.7	7.8	14.9	18.1	6.6	41.0	12.8	6.7	14.9	18.0	6.7
Overall	58.9	12.7	6.7	10.3	8.9	2.4	57.4	13.9	6.2	10.0	9.9	2.6
Mean pc exp	196	229	235	251	278	330	354	380	401	425	470	572

Rural	Illite- rate	Below primary	Primary	Middle	Secon- primary	Higher	Illite- rate	Below primary	Primary	Middle	Secon- dary	Higher
Bottom	52.8	16.4	6.8	13.3	8.6	2.2	57.5	16.2	9.1	7.0	7.4	2.8
Quintile 2	32.9	17.8	7.9	24.2	15.1	2.1	36.5	18.9	10.7	18.2	12.0	3.7
Quintile 3	23.5	12.1	13.4	23.1	20.2	7.8	25.9	16.8	9.4	12.8	24.6	10.5
Quintile 4	14.2	8.5	5.4	17.2	33.6	21.1	16.2	11.2	6.2	15.4	29.7	21.3
Top	6.1	3.5	5.1	11.6	35.0	38.8	4.9	3.3	3.5	4.7	36.8	46.8
Overall	25.9	11.7	7.7	17.9	22.5	14.4	28.2	13.3	7.8	11.6	22.1	17.0
Mean pc exp	240	267	301	310	431	581	397	458	473	507	725	1013

Source: The 50th and 55th NSSO round surveys.

TABLE I.10 EDUCATIONAL ATTAINMENTS OF HOUSEHOLD HEADS AND OCCUPATIONS

Education of head	Agricultural labor	Cultivation Regular non-farm	Casual non-farm	Self non-farm	Other	Total
50th round (1993/93)						
Illiterate	54.3	31.9	1.5	3.2	8.8	100
Below primary	29.3	48.8	3.6	2.2	15.9	100
Primary	29.8	48.1	3.4	2.6	16.2	100
Middle	16.4	57.7	7.2	1.3	17.1	100
Secondary	9.0	59.4	15.7	1.4	14.4	100
Higher	7.6	51.3	31.0	1.0	9.1	100
All	41.9	39.9	4.1	2.7	11.4	100
55th round (1999/00)						
Illiterate	52.8	30.2	1.1	5.1	10.7	100
Below primary	26.2	46.0	3.4	5.1	19.2	100
Primary	22.1	53.5	4.3	4.9	14.9	100
Middle	17.9	57.7	5.6	3.1	15.0	100
Secondary	14.1	53.5	12.9	2.8	15.6	100
Higher	3.0	58.2	26.6	0.3	12.0	100
Total	40.4	38.5	3.5	4.6	12.8	100

Source: 50th and 55th round NSSO surveys.

TABLE I.11 EDUCATIONAL ATTAINMENTS BY SOCIAL GROUPS IN RURAL BIHAR

	Illiterate	Below primary	Primary	Middle	Secondary	Higher	Total
50th round (1993-94)							
Majority	52	15	8	12	11	3	100
SC/ST	76	8	5	7	4	1	100
Overall	59	13	7	10	9	2	100
55th round (1999-00)							
Majority	52	15	7	11	12	3	100
SC/ST	72	10	4	7	5	1	100
Overall	57	14	6	10	10	3	100

Source: 50th and 55th round NSSO surveys (Schedules 1 & 2).

TABLE I.12 DISTRIBUTION OF RURAL WORKING AGE POPULATION IN BIHAR BY SOCIAL GROUP AND PRINCIPAL ECONOMIC ACTIVITY

Education of head	Agricultural labor	Cultivation Regular non-farm	Casual non-farm	Self non-farm	Other	Total
50th round (1993/93)						
SC/ST	65.1	22.2	3.3	3.3	5.8	100
Majority	29.1	49.5	4.5	2.4	14.4	100
Overall	41.9	39.9	4.1	2.7	11.4	100
55th round (1999/00)						
SC/ST	58.2	24.6	2.4	6.1	8.6	100
Majority	31.3	45.6	4.1	3.9	14.8	100
Overall	40.4	38.5	3.5	4.6	12.7	100

Source: 50th and 55th round NSSO surveys.

TABLE I.13 DISTRIBUTION OF EDUCATIONAL ATTAINMENT BY LEVEL OF EDUCATION (AGE 20-24): 1995-96

	Primary	Middle	High school	Higher secondary
Rural	15.84	27.86	21.98	16.22
Urban	8.68	11.26	22.91	36.49

Source: 52nd round NSSO survey.

TABLE I.14 SELECTED HEALTH INDICATORS FOR DISTRICTS OF BIHAR

District	Contraceptive prevalence rate	Unmet need	% of deliveries that are safe (out of all child births)	% of children completely immunized	% of children with no immunization	Sum of ranks for all indicators ¹
Patna	36.6	24.6	49.7	37.0	49.0	18
Muzaffarpur	25.3	33.7	30.1	31.1	33.0	31
Khagaria	28.8	37.0	16.7	27.9	43.3	47
Darbhanga	27.1	22.8	14.7	22.2	47.1	50
Bhagalpur	27.5	36.2	18.4	25.6	47.9	53
Nawada	20.4	30.3	23.4	29.6	46.0	54
Vaishali	24.3	26.3	19.3	22.6	48.1	54
Jehanabad	21.2	30.3	33.1	27.2	57.4	58
Saharsa	28.4	24.6	19.7	20.7	63.2	60
Bhojpur	23.4	48.9	58.3	12.0	34.0	65
Purnia	23.7	41.5	23.4	17.2	34.8	65
Siwan	21.8	46.8	19.4	30.7	45.9	65
Saran	18.2	49.0	42.7	20.7	32.7	68
Gaya	22.0	27.5	15.3	24.5	56.3	70
Buxar	20.3	41.2	29.4	24.5	53.1	72
Begusarai	23.1	56.8	28.0	16.4	34.7	76
Aurangabad	21.8	24.8	23.0	18.3	62.8	77
Nalanda	25.6	57.3	36.1	13.1	57.6	85
Samastipur	22.7	31.7	7.9	20.0	57.1	91
Sitamarhi	16.8	30.7	11.9	19.3	52.9	92
Araria	28.1	52.0	10.9	20.4	58.8	93
Madhubani	22.8	31.7	10.1	18.1	60.0	93
Gopalganj	15.9	51.8	21.8	21.2	54.5	97
Madhepura	25.0	44.9	11.6	15.7	62.4	97
Munger	23.1	51.9	22.0	10.9	65.9	108
West Champaran	21.8	36.4	14.9	14.3	68.6	108
Rohtas	21.0	47.1	30.7	8.4	73.6	109
East Champaran	22.5	50.4	12.7	15.4	69.3	116
Katihar	18.8	57.5	8.6	25.6	63.6	117
Kishanganj	16.1	47.8	8.3	11.4	71.6	136
Mean	23.1	39.8	22.4	20.7	53.5	
Standard Deviation	4.2	11.0	12.1	6.7	11.7	

Source: RCHH II survey.

¹The number for each district is the sum of ranks in terms of each of the 6 indicators. The rank for each indicator goes from 1 to 30, with a lower number indicating a higher rank.

TABLE I.15 STATUS OF INFRASTRUCTURE IN PRIMARY HEALTH CENTERS

Number surveyed	Bihar 339	Orissa 364	UP 486	Kerala 790	India 795
Percent of PHCs having:					
Own building	79	99	73	87	92
Toilet facility	40	50	52	95	79
Water (continuous supply)	62	75	36	80	62
Electricity	31	57	41	95	82
Labor room	15	35	20	24	48
Laboratory	19	23	31	19	46
Telephone	1	22	14	20	
Vehicles (functional)	27	19	14	18	29
At least one bed	56	48	90	30	69

Source: Rapid Facility Survey (Department of Family Welfare, Government of India) - selected districts.

Annexure 2

SOME EXAMPLES OF TRANSFER OF FUNDS TO THE STATE

TABLE 2.1 SUMMARY OF THE CHARACTERISTICS OF THE THREE FORMS OF DEVOLUTION OF FUNDS TO THE STATES

	Finance Commission	Devolution to States Through Finance Ministry/Planning Commission	
		Support to States' Plans (Central Assistance)	Support to Central Ministries (CSS)
Approx. amount in 2001/02 in billion rupees	700	400	250
Share in National Gross Domestic Product in 2001/02	2.8%	1.5%	1.0%
Whether grant or loan	All grant	30% grant, 70% loan for major states, but 90% grant, 10% loan for special category states (SCS). Some new programmes are 100% grant, such as RSVY.	Almost all grant, used for financing centrally spon- sored schemes (CSSs) and transfers to DRDAs, etc.
Discretion in fund utiliza- tion	States have full control, can be used for both plan and non-plan, but due to the growing size of non-plan expenditure and interest burden, FC grants are not being used for plan, as these are hardly sufficient for meeting the growing non-plan expenditure.	Non-SCS states can use it only for plan; SCS can divert 25% of assistance for non-plan; states decide sec- tor-wise breakup and obtain Planning Commission's approval once a year. However after 1991 the states are free to formulate new schemes without consulting the Planning Commission.	These funds are not part of state plans; schemes are for- mulated by central ministries in consultation with states and states are asked to con- tribute a part, usually 25% of the cost; though there are some new CSS that are 100% funded by central gov- ernment. Implementation of these schemes is done by state governments.
Who decides state-wise breakdown?	Finance Commission, once in five years, decides the share in taxes, evolves a formula (favorable to poor states) to distribute among the states, and also gives discretionary grants to some states for covering their non-plan deficit.	These two components are part of the annual GBS (gross budgetary support to Plan) and its size is decided by the Finance Ministry in consultation with Planning Commission. The breakdown of GBS into central assistance for states and central plan for ministries is decided by the Planning Commission. The breakdown of central assistance for states into normal Central Assistance and Additional Central Assistance (generally 50:50) is again at the discretion of Planning Commission. However, the inter-state distribu- tion of normal Central Assistance is guided by the Gadgil Formula that gives weighting to poverty, etc. The distribu- tion of Additional Central Assistance among the states is determined by the nature of the scheme, or is at the discre- tion of Planning Commission. Many central ministries, except rural development, do not have a transparent formu- la for fixing state allocations. The state's share in their bud- get depends on the nature of the scheme, past expenditure and the interest taken by the state.	

TABLE 2.2 CENTRAL ASSISTANCE AND NON-PLAN TRANSFERS ALLOCATED AND RELEASED TO THE GOVERNMENT OF BIHAR (RS. CRORE)

Item	2001-02		2002-03		2003-04	
	Allocation	Released	Allocation	Released	Allocation	Released as on 11.08.2003
PLAN						
NCA	1239	1181	1354	1253	1501	598
SDS	18	0	17	17	17	
ACA for EAPs	16	17	51	1	0	
ACA	100	100	100	104	50	
PMGY	246	141	242	242	242	
AIBP	200	3	150	14	100	
NSAP		0	62	62	62	26
BADP	7	0	7	7	7	
APDP		0	138	66	138	
REC		0	68	68	68	
DRF		0	0	0	500	0
ISUI			15		15	
NPAG					13	
Total	1826	1442	2204	1835	2713	624
Non-Plan						
CRF	53	26	55	82	58	0
Share in central taxes ^a	7079	6177	7150	6559	7392	2640
Small savings loan	1300	1310	1598	1575	1362	639
Degradation grant	52	59	52	45	51	5
Local bodies grant	122	109	122	197	122	0
Total	8606	7681	8978	8458	8985	3284

TABLE 2.3 ALLOCATION AND RELEASES OF RD FUNDS FOR BIHAR DURING 9TH PLAN (RS. CRORE)

Years	Central Allocation	Central Release	Difference
1997-98	829.95	729.93	100.03
1998-99	1084.84	856.32	228.53
1999-2000	1232.07	953.17	278.90
2000-01 ^a	721.11	442.67	278.44
2001-02	780.00	617.24	162.76
Total	4647.97	3599.33	1048.64

TABLE 2.4 FUNDS FLOW FOR RD SCHEMES IN BIHAR FOR 2002-03

Name of the Scheme	Opening balance	Central allocation	Central releases	State releases	Total available funds	Total expenditure	% exp to available	No. of districts getting II instalments
SGSY	109	73	38	13	160	108	68	2
SGRYI	110	189	135	64	309	238	77	23
SGRYII	81	174	132	56	270	205	76	25
IAY	167	328	197	66	430	293	68	15
Total (incl. others)	519	865	599	204	1321	898	68	

TABLE 2.5 SCHEME-WISE DETAILS OF ALLOCATION AND RELEASE OF FUNDS TO BIHAR DURING 2002-03 AND 2003-04 FROM THE DEPARTMENT OF FAMILY WELFARE, GOI (RS. LAKH)

Name of the centrally sponsored scheme	Allocation made during 2003-04	Amount released during 2002/03	Amount utilized in 2002/03	Remarks	
Sub-centers	7478	9403	Releases made are assumed to be fully utilized. Any excess expenditure incurred by the state is reimbursed in the form of arrears on submission of audited statement of expenditure.	No releases were made during 2002-03 because of unspent balance lying with the state govt. No allocation was made for 2003-04.	
Urban FW services	185	134			
Direction & administration	1408	1090			
Transport	96	107			
Basic training for ANM/LHVs	480	282			
Maintenance & strengthening of HFWTCS	91	69			
Sterilization beds	4	3			
Compensation for sterilization	750	631			
IEC	0	0			Not reported.
Supply of contraceptives,	No state-wise allocation is made and releases are demand driven	6625			Assumed to be utilized in full.
RCH program		4120	84		
Maternity benefit scheme		270	Not reported.		
Empowered action group		3	Not reported.		
Arrears		6042	Arrears are the expenditure of the states in excess of the releases made during the previous years and are released on the production of audited statements of expenditure by the state govt.		

TABLE 2.6 DATES OF RECEIPT OF FUNDS AND ALLOCATION FOR 2002-03 AT THE DISTRICT LEVEL

Name of scheme	1st installment				2nd installment			
	Central		State		Central		State	
	Date	Allocation	Date	Allocation	Date	Allocation	Date	Allocation
SGRY1	10.6.02	279.410	7.1.03	93.140	21.4.03	226.50	31.3.03	98.95
SGRY2	2.8.02	244.46	7.1.03	96.83	21.5.03	200.67	31.3.03	66.89
IAY	4.7.02	380.64	7.1.03	101.504	12.3.03	58.768	26.3.03	19.584
SGSY	20.8.02	104.75	2.12.02	34.916	Not received			
NOAPS	14.5.02	60.72	Not received		26.2.03	49.41		
SOAPS			7.2.03	87.561			21.3.03	87.561
NFBS	24.5.02	1.58	Not received		28.2.03	9.630	Not received	
					31.3.03	7.710		
NMBS	Not yet received		--		Not received			

⁸The difference between allocations and releases is due to poor tax collections by the central government, and has nothing to do with the State's performance.

⁹ Both in 2000-01 and 2001-02 part of cash assistance was converted into food grants, hence the central allocation is lower than in the previous years.

Annexure 3

ISSUES IN CIVIL SERVICE REFORM

Size and Composition

The process of bifurcation of cadres and staff between Bihar and Jharkhand is still on. Estimates provided by the GoB (Finance Department) of sanctioned and working manpower strength after bifurcation are shown in Table 3.1.

Group	Sanctioned 2002-03	Working 2002-03	Sanctioned 2003-04	Working 2003-04
1	4989	3855	4831	3571
2	22673	16530	22815	15737
3	427888	347529	425616	339234
4	117396	94223	116232	92602
Total	572950	462137	569504	451344

Of the state's 41 government departments, the department of secondary and primary education accounts for the highest manpower, followed by the home and health departments. The chief issues are composition, skill mix and deployment, though there is no overstaffing compared to other states.

By comparison with other states and the central government, the proportion of group 3 (C grade elsewhere) employees in Bihar is high at 75%. Another striking aspect is the large difference between sanctioned and working strength, especially for groups 3 and 4. However, these figures are based largely on unverified field reports of sanctioned posts and the government believes that the number of vacancies is inflated and unrepresentative of actual needs. For the Bihar Administrative Service alone, there is a shortfall of 633 out of 2248 sanctioned posts in different grades.

In addition to groups 1 to 4, there are also employees in public sector units (88,572 employees in 49 sick public sector units alone) and 1,56,000 in schools, colleges and religious schools, who are dependent on the government for their salaries. There are no firm estimates of work-charged staff or of the number of people retiring each year.

Vacancies and Recruitment

The Finance Department has imposed a freeze on

recruitment with exemption only for critical posts like teachers, medical personnel and policemen. New posts require approval by an Empowered Committee under the Development Commissioner (for plan posts) and a Committee under the Chief Secretary (for non-plan posts) with requests considered on the department's willingness to surrender posts with equivalent salary expenditure. A 1981 ban on recruitment of work-charged and daily wage employees continues though it is not always obeyed. The Finance Department must approve the continuation of non-plan temporary posts, vacancies beyond six months and time-bound promotions.

These approvals from the Finance Department for continuing non-plan posts sometimes lead to delays in payment of salaries to health and other staff in the districts. In addition, the lack of accurate estimates of working staff leads to an underestimation of salary requirements and subsequent shortfalls. There are reports of large arrears to employees in different government departments and public sector units.

There are some gaps in enforcing the recruitment freeze. For instance, there is no limit to compassionate appointment of legal heirs (unlike the 5% cap at the GoI). Also, departments are allowed to act on orders of the court on the appointment of staff and on lists received from the BPSC or the State Services Commission (SSC).

The Finance Department believes that the system would benefit from a database and rational estimation of staff required by departments through a zero-based functional audit. The Water Resources Department has already undertaken a reorganization of the department and surrendered 2000 posts besides committing itself to further reductions in the workforce each year. Another example is the public health engineering department, which retrenched 3600 unauthorized work-charged staff.

Promotion and Deployment

The difficulty in assessment of posts after bifurcation has also held up promotions. Other factors have been delays in: (a) departmental promotion committee meetings because of High Court orders on seniority; and (b) obtaining clearances from vigilance, Lok Ayukta and disciplinary authorities.

Service Commission

The BPSC, for group 1 and 2 posts, is capacity constrained and is functioning under an officiating chairperson and just three members instead of the full strength necessary for supervising examinations and holding interviews. The SSC, for group 3 and 4 employees, has been constituted but is not fully functional. Manual processes in the PSC and SSC, the failure to bunch examinations for candidates with common qualifications (as in the central government), court cases and insufficient staff lead to delays in the selection of candidates.

Services and Cadres

Personnel management is highly decentralized with individual ministers controlling recruitment, placement and promotion. Despite having the nodal responsibility for civil service rules, the Department of Personnel and Administrative Reforms has direct control over only a few services and plays a largely reactive role on amendments to departmental systems. The Finance Department has influence in the creation of posts and in filling positions and also directs the process of determining pay scales and allowances. As a result of the fragmented control of different departments (barring state services like the Bihar Administrative Service and the secretariat service) there has been inefficient management of the services and cadres, thereby compounding employee grievance over seniority and promotions with several petitions before the High Court.

The adoption of central pay scales and agreements with individual unions have disrupted the relativities applicable to different categories of employees, affecting some sections adversely and leading to more disputes. Some problems have also been created by isolated decisions of the judiciary. As the Fitment Appellate Committee points out, such orders upset government effort to maintain parity and relativity in pay scales.

The Government of Bihar is aware of the need to revise work norms, examine changes in the functions of departments, assess requirements of different skill mixes and evaluate the implications of information technology. This realization has led to initiatives by departments like water resources and public health engineering and, recently, personnel. A common pool is operated by the personnel department for the secretariat where the hierarchy consists of lower and upper division clerks, assistants, section officers, under secretaries, deputy secretaries, joint secretaries, additional secretaries and secretaries. A well-coordinated effort to inventorise and consolidate cadres and services, including the merger and abolition of related cadres in engineering or agriculture is one reform that could begin jointly by the personnel and finance departments for rationalizing the civil service.

Rules and Manuals

The systems of record management are in disrepair in Bihar. The rules governing the civil service also need to be updated. Access to other states' experience, for instance the Karnataka Administrative Reforms Commission, shows useful suggestions for reforming secretariat procedure and improving decision-making. Clear authority for decisions and time limits are incorporated in the rules, followed by department-specific instructions circulated widely to employees and the public. States like Andhra Pradesh and Uttar Pradesh have rationalized recruitment rules as suggested by the Fitment Committee, requiring department-specific exercises, backstopped by a professional and vetted by the law process.

Some such steps have already been taken by the Government of Bihar. The Department of Personnel is about to finalize the report of a committee on amendments to the Civil Services (Classification, Control and Appeal) Rules, and is also consolidating the provisions relating to departmental inquiries in different service rules. Besides,

the government is making a need-based assessment of the posts of section officers and above in the secretariat and redeploying surplus staff. A committee has been set up under the Development

Commissioner to rationalize the different engineering cadres in roads and construction, water resources and public health engineering and to improve promotion prospects. ■