

## 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.<sup>1</sup> 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.<sup>2</sup>

### 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.<sup>3</sup> 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).<sup>4</sup> 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
<b>Total</b>	<b>15.2</b>	<b>21.1</b>	<b>51.5</b>	<b>6.4</b>	<b>5.9</b>	<b>100.0</b>

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.

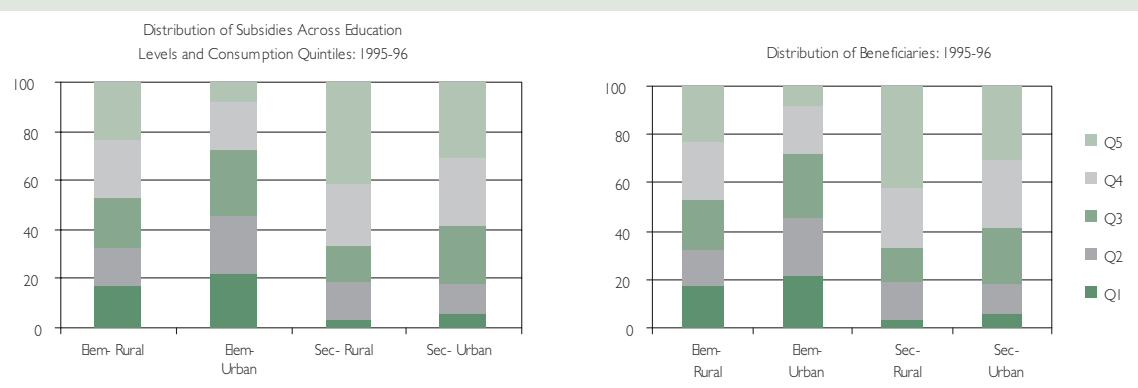
While additional resources are necessary — in the light of the infrastructure and staffing needs highlighted earlier for both education and health — the necessary impact would need a dynamic change in the spending pattern. Given the indifferent quality and inefficiencies that abound, improvement in the 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.<sup>5</sup> 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		
	<b>Rural</b>						
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
	<b>Urban</b>						
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.

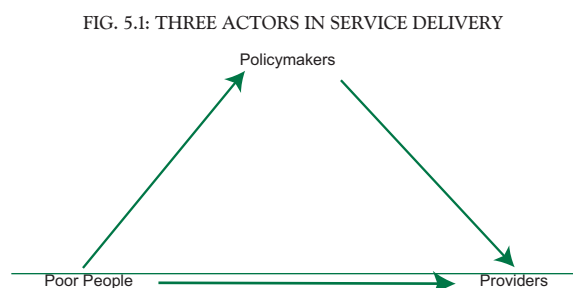
(4) Services fail the poor due to the lack of demand in remote rural areas, and especially among the poor. Poor quality of services is also one of the reasons. Even when the services are free, many poor, rural families cannot afford the time it takes to travel to a school or health clinic. In the case 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.<sup>6</sup> 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.<sup>7</sup>

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.<sup>8</sup>

## 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.

**T**he 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.<sup>9</sup>

### **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.

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.<sup>10</sup> 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)**

<b>Tenth Plan projected outlays (in Rs. lakh)</b>	<b>Bihar</b>	<b>Andhra Pradesh</b>	<b>Karnataka</b>	<b>Orissa</b>	<b>Uttar Pradesh</b>
<b>Rural Development</b>					
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
<b>Rural Employment</b>					
(a) NREP/Jawahar Rozgar Yojana (JRY).	71083	47953	11554	3942	310000
(b) Other programs (like EGS etc.).	44000	0	8059	0	0
<b>Land Reforms</b>	17974	658	2484	1258	2200
Other rural development programs (incl. Community Development and Panchayats)	266893	71636	178070	40437	322591
<b>Total</b>	<b>413650</b>	<b>459207</b>	<b>222772</b>	<b>89791</b>	<b>712791</b>

**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
<b>Caste group</b>				
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
<b>Land class</b>				
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
<b>Quintile group</b>				
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
<b>Total</b>	<b>7.4</b>	<b>10.1</b>	<b>56.5</b>	<b>84.1</b>

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

<sup>1</sup> 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.

<sup>2</sup> SIEMAT (2000).

<sup>3</sup> See Annex I: Table 15.

<sup>4</sup> 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.

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

<sup>6</sup> 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..

<sup>7</sup> 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.

<sup>8</sup> 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..

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

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

<sup>11</sup> “India DPR: Agricultural and Rural Development” Table 3.