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Jharkhand: Addressing the Challenges of Inclusive Development

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ABBREVIATIONS AND ACRONYMS

ACR	Annual Confidential Report
AIES	All India Education Survey
ALS	Alternative Learning Centers
ANC	Ante-Natal Care
ANM	Auxiliary Nurse Midwife
APL	Above Poverty Line
APP	Anti-Poverty Program
ASER	Annual Survey of Education Report
BCC	Behavior Change Communication
BCCL	Bhartiya Coking Coal Limited
BEP	Bihar Education Project
BIFR	Board for Industrial and Financial Reconstruction
BJP	Bhartiya Janata Party
BPL	Below Poverty Line
CAS	Compensatory Afforestation Scheme
CBR	Crude Birth Rate Survey
CIL	Coal India Limited
CNT	Chhottanagpur Tenancy
CPI	Communist Party of India
CSS	Centrally Sponsored Schemes
DES	Department of Economics and Statistics
DISE	District Information System for Education
DPAP	Drought Prone Area Program
DPEP	District Primary Education Program
DRDA	District Rural Development Agency
DSS	Decision Support System
DWS	Drinking Water Supply
ECL	Eastern Coalfields Limited
EGS	Education Guarantee Scheme
EITI	Extractive Industries Transparency Initiative
FRBMA	Fiscal Responsibility and Budget Management Act
FCI	Food Corporation of India
FDI	Foreign Direct Investment
FoI	Freedom of Information
FPS	Fair Price Shop
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
NCL	National Colliers Limited
NDA	National Democratic Alliance
NEP	National Education Policy
NFE	Non-Formal Education
NFFW	National Food for Work
NFHS	National Family Health Survey
NGO	Non-Government Organization
NHAI	National Highway Authority of India
NREG	National Rural Employment Guarantee
NRM	National Resource Management
NSS	National Sample Survey
OBB	Operations Black Board
OBC	Other Backward Class
PDS	Public Distribution System
PEO	Program Evaluation Organization
PESA	Panchayat Extension to Scheduled Areas
PFC	Power Financial Corporation
PHC	Primary Health Centers
PHS	Primary Health Services
PIP	Program Implementation Plan
PMGSY	Pradhan Mantri Gram Sadak Yojana
PRI	Panchayati Raj Institution
PTR	Parent Teacher Ratio
RJD	Rashtriya Janata Dal
RCD	Rural Construction Department
RCH	Reproductive and Child Health
RD	Rural Development
REC	Rural Electrification Corporation
REO	Rural Engineering Organization
RJBS	Rural Jharkhand Baseline Survey
RJUSS	Rural Jharkhand User Satisfaction Survey
RNF	Rural Non-Farm
RNTCP	Revised National TB Control Program
SC/ST	Scheduled Caste/ Scheduled Tribe
SGRY	Sampoorna Grameen Rozgar Yojana
SGSY	Swarnjayanti Gram Swarozgar Yojana
SHG	Self Help Group
SIEMAT	State Institute of Educational Management and Training
SIERT	State Institute for Educational Research and Training
SME	Small and Medium Enterprise

GFATM	Global Fund for AIDS, TB and Malaria
GoI	Government of India
GoJ	Government of Jharkhand
GP	Gram Panchayat
GPI	Gender Parity Index
GSDP	Gross State Domestic Product
HMIS	Health Management Information System
HoD	Head of Department
HRDM	Human Resource Development and Management
IAY	Indira Aawas Yojana
IC	Investment Climate
ICD	Inland Container Depot
ICDS	Integrated Child Development Scheme
ICS	Investment Climate Survey
IIDB	Industrial Infrastructure Development Board
IMR	Infant Mortality Rate
IRDP	Integrated Rural Development Program
IRR	Internal Rate of Return
IWDP	Integrated Watershed Development Program
JEPC	Jharkhand Education Project Council
JHS	Jharkhand Health Society
JIIDC	Jharkhand Industrial Infrastructure Development Corporation
JMM	Jharkhand Mukti Morcha
JSEB	Jharkhand State Electricity Board
LAA	Land Acquisition Act
MDG	Millennium Development Goal
MHRD	Ministry of Human Resource Development
MIS	Management Information System
MKSS	Mazdoor Kisan Shakti Sangathan
MLA	Member of Legislative Assembly
MMR	Maternal Mortality Rate
MoU	Memorandum of Understanding
MP	Member of Parliament
MTFRP	Medium-Term Fiscal Reforms Program
SPR	Slide Positive Rate
SPT	Santhal Paraganas Tenancy
SRRDA	State Rural Road Development Agencies
SRS	Sample Registration System
SSA	Sarva Shikshya Abhiyan
SSI	Small-Scale Industries
SPCB	State Pollution Control Board
STC	State Transport Corporation
TB	Tuberculosis
TFC	Twelfth Finance Commission
TFR	Total Fertility Rate
TLMs	Teaching Learning Materials
TPDS	Targeted Public Distribution System
TSP	Tribal Sub-Plan
T&D	Transmission and Distribution
TTD	Transformation, Transmission and Distribution
VAT	Value Added Tax
VEC	Village Education Committee
VHC	Village Health Committee
VHSE	Vocational Higher Secondary Education
WMI	Whitehorse Mining Initiative
XISS	Xavier Institute for Social Sciences
XLRI	Xavier Labor Relations Institute

Report Team and Acknowledgements

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Executive Summary

A. Emergence of a New State: Adverse Initial Conditions

1. **Carved out of southern Bihar as a new state of India in November 2000, Jharkhand was plagued by adverse initial conditions -- low average income, very high incidence of poverty, and little social development.** Its nominal per capita income (($314 in 2003/04) is low (only 55 percent of the all-India average), though not the lowest among the major Indian states. It is actually higher than the per capita income of Bihar and Uttar Pradesh (UP) and similar to that of Orissa. The average per capita income is also associated with a high degree of income inequality and a rural-urban gap within the state as is evident from the high incidence of poverty in rural areas. The initial level of rural poverty, assessed at 49 percent by the National Sample Survey (NSS) 55th round in 1999/2000, was the highest among all Indian states, the second highest being Orissa (48 percent), followed by Bihar (44 percent), Assam (40 percent), and Madhya Pradesh (MP) (37 percent). This suggests a potential distributional issue, as relatively better per capita income ranking adversely translates into a lower ranking on the rural poverty scale. The divide is sharper when the rural and urban areas are compared. The incidence of urban poverty is, however, only 23 percent, which is similar to or better than Andhra Pradesh (AP) and Maharashtra (27 percent), Karnataka (25 percent), and Tamil Nadu (23 percent), and much lower than in Orissa (44 percent) and Bihar (34 percent).[1]

2. **Initial health and education indicators in Jharkhand were also markedly unfavorable in comparison to both the all-India average and the major Indian states.** The proportion of children with full vaccination was assessed at an abysmal 9 percent compared with the all-India average of 42 percent. The proportion of institutional deliveries was a low 14 percent, the presence of skilled birth attendants 17 percent, and the proportion of women who received at least one ante-natal care (ANC) contact just 42 percent. These are close to coverage levels in undivided Bihar, but much lower than the all-India average. As per the census (2001) figures, the literacy rate of the state at 54 percent is the second lowest in the country (after Bihar) against the national average of 65 percent. With the male literacy rate at 68 percent and the female literacy rate at 39 percent, the state has the second highest rate of gender disparity in the country after Rajasthan.

B. Signs of Hope: A Balance Sheet of Change in Recent Years

3. **Despite the adverse initial conditions, there are some early signs of turn around in Jharkhand in several respects.** Poverty declined by an impressive average of two percentage points a year between 1994 and 2002. This may be compared to about 2.5 percentage points a year observed at the all-India level during the same period as per official "unadjusted" data. Progress was highly uneven, however, between the rural and urban areas with the pace of rural

[1] These poverty estimates are "unadjusted" i.e. without making any Deaton-Dreze (2002) type of adjustment for any possible overestimation of per capita monthly consumption from the simultaneous recording of food consumption through 7-day/ 30-day memory recall in Schedule 1 of the NSS. Hence, only the official poverty numbers are used here for state-level comparisons for both rural and urban poverty.

poverty reduction being faster. The sustainability of poverty reduction especially in rural areas is a cause for concern given the rainfed agricultural conditions.

4. **The state has experienced a modest, volatile, but consistently positive per capita growth rate of 2.4 percent per year in Gross State Domestic Product (GSDP) during 1993-2003 and about 2 percent per year in consumption expenditure over 1997-2002, as estimated from the NSS.** The total GSDP growth rate was about 4.8 percent per year during 1993-2003 compared with 6.0 percent for India as a whole. However, almost all sectors in Jharkhand showed huge volatility in growth rates year on year. While the agricultural sector grew at a rate of 4 percent (higher than 2.2 percent for all India), the industrial and services sector grew at rates lower than the all-India rates. The mining sector, which contributes nearly 15 percent of the GSDP (six times more than the all-India level), grew at only 3 percent, compared to a 4.6 percent growth of this sector at the all-India level.

5. **The poverty-reducing effects of growth have been further helped by improvement in distribution in rural areas.** In contrast, urban growth was highly inequitable**.** The Gini index of consumption inequality has dropped for both thick and thin round intervals for rural areas.[2] The corresponding figure for urban areas increased from 34 to 36 percent during the period 1994-2000, and rose at an even higher pace during 1997-2002.

6. **There has been impressive improvement in access to primary education, especially in the 6-14 year age-group, for both gender categories and the Scheduled Caste/Scheduled Tribe (SC/ST) population.** The age-specific enrolment rates for the 6-11 year age-group improved from 56 percent in 1993/94 to 58 percent in 1999/2000 (as per the NSS data) and further to 95 percent in 2005 (as per the Sarva Shikshya Abhiyan (SSA) household census). The impressive increase in enrolment has been accompanied by greater gender and social equity as well. The Gender Parity Index (GPI) for primary grades in the state is 0.98 and for the upper primary grades 0.97. Similarly, as far as the social equity in enrolment is concerned, SC/ST enrolment shares were close to their shares in the respective age-group population.

7. **Equally impressive progress has been made in some key health indicators, especially in the area of child vaccination and prevention of major diseases.** The newly instituted "catch up rounds" (since 2002/03) has led to a dramatic improvement in the coverage of child immunization, and vitamin A and iron supplementation. The United Nations Children's Fund (UNICEF) has recently estimated that immunization coverage is now almost 50 percent compared to 9 percent in 1998/99. This is the most rapid rise in coverage recorded in India for a five-year period. The state has made significant progress in reducing the prevalence of leprosy and, to a lesser extent, in the spread of communicable diseases such as tuberculosis (TB). The prevalence rate for leprosy dropped to 2.69 per 10,000 in 2005 from a high of 10.9 per 10,000 (three times the national average) in 2001. In the case of TB the state has achieved an impressive success rate in treatment of over 90 percent (compared to the national average of 85 percent).[3]

[2] Thick rounds are NSS five- yearly surveys and Thin rounds relate to NSS annual surveys on household consumption expenditures.

[3] Jharkhand, however, still lags behind most other Indian states in respect of two key health MDG indicators according to the recently completed 2005/06 NFHS-III survey. Firstly, the prevalence of child malnutrition (as measured by the proportion of underweight children) remains one of the highest in India, being assessed at 59% compared to 60% in Madhya Pradesh, 58% for Bihar, 52% in Chhattisgarh, 44% in Orissa, 40% in Assam, and much higher than the all-India average of 46%. Secondly, the

8. The decline in poverty and the improvement in social indicators can perhaps be attributed to increased allocations coupled with better implementation as well as the involvement of Non-Government Organizations (NGOs). Most importantly, it shows that the Government of Jharkhand (GoJ) is aware of the challenges it is facing, and is committed to overcoming them to improve state outcomes.

C. Key Strategic Challenges for Inclusive and Sustainable Growth

9. **Despite this progress, Jharkhand remains a state with one of the highest poverty rates in India.** The goal is therefore not only to accelerate growth but also to ensure that it is socially inclusive and environmentally sustainable. This study identifies the central importance of three necessary cross-cutting conditions for achieving these objectives: (i) **addressing institutional gaps** (building new institutions as well as improving the performance of existing institutions); (ii) **improving access to infrastructure** (such as irrigation, roads, power, telecommunication, storage facilities, schools and clinics); and (iii) **expanding rural opportunities** (which should not be limited to the "access" issue in the sense of creating economic opportunities, but also to enhance household and community capabilities to take advantage of such opportunities). These are "bottom-line preconditions" in the sense that for any development strategy to be successful in the state, these sets of issues need to be tackled up front.

D. Addressing the Institutional Gap and Improving Performance

10. **While the implementation of programs has improved after the separation of Jharkhand from Bihar, the state faces significant challenges in overcoming the growing weaknesses of implementation capacity.** This is especially important in the context of the huge increase in planned capital expenditure (mostly on account of infrastructure building) from 2.8 percent of GSDP in 2003/04 to 7.7 percent of GSDP by 2006/07 (budget estimates).

11. **Weak institutional performance can be observed from the deteriorating fiscal situation.** The fiscal deficits of the state have been rising at an alarming rate. The state is unlikely to meet most of the performance criteria posited by the Twelfth Finance Commission (TFC) for debt relief and may lose out on substantial fiscal receipt on that count. This does not augur well for the state as it faces major development challenges that require increased public sector allocation especially for infrastructure and human resource development.

12. **Except for the one year, 2003/04 (when the central elections took place and the model code of conduct was in place), fiscal deficits have risen rapidly in recent years and reached a high of 10.1 percent of GSDP in 2005/06 (RE).** The biggest increases have come on the expenditure side -- in particular, transfers and capital expenditure -- which may well be in line with a desired development strategy but which have not been matched by increases on the revenue side. This is typical of a new state, as with other new states, where finances are better in the first few years and then deteriorate in the following years as the division of assets and liabilities takes place and new hirings begin to fill up gaps in capacity.

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infant mortality rate in the state stands at 69 deaths per thousand live births compared with 70 in Madhya Pradesh, 62 for Bihar and 57 for the all-India average.

13. **In order to put its fiscal house in order, the state needs to introduce reforms for improving resource mobilization, increasing cost effectiveness of expenditure and rationalizing the budgetary processes.** While large increases in expenditure on infrastructure and social development of the underprivileged groups in the state are warranted, it is important to ensure that these are within the absorptive capacity of the state. A good monitoring mechanism needs to be put in place to ensure there are no leakages in the system. Consolidation of schemes will help cut down administrative costs. Some common expenditure control measures to be considered include restrictions on the creation of new posts, rationalizing of existing posts and a ceiling on contingent liabilities. Improving public procurement should also play an important role in enhancing the effectiveness of public spending while at the same time reducing unproductive expenditure.

14. **At present, the budget does not reflect a realistic picture of the financial position of the state.** While the overall level of debt is known, other disclosures such as large outstanding pension liabilities and contingent liabilities (committed contracts, guarantees, bad debts etc.) are not known. The government needs to prepare a medium-term expenditure plan and place its annual budget preparation within the context of this plan. This plan should be prepared in consultation with the line departments and be consistent with resource mobilization efforts to ensure fiscal discipline in the medium to long term. Other immediate steps include drawing up of a Medium-Term Fiscal Reforms Program (MTFRP) incorporating the incentives outlined in the TFC award.

15. **Apart from managing the finances, the effectiveness of implementation is affected by four sets of factors: (i) high micro-risks such as insecurity relating to extremist violence; (ii) problem of corruption; (iii) inadequate administrative capacity; and (iv) low beneficiary participation and satisfaction.**

16. **In terms of the incidence of left-wing extremist violence, Jharkhand is second to Andhra Pradesh.** There is a widespread perception in civil society that while corruption in Jharkhand is considerably lower than in Bihar, it is a growing menace. The 2005 TI-CMS perception survey ranks the state as being 14th among 20 states in terms of "efficiency and transparency of governance". Although the relative ranking is better than Bihar, MP, Karnataka, Rajasthan, and Assam, it is worse than Chhattisgarh (one of the other newly created states) and Orissa.

17. **Severe administrative capacity constraints that have been captured by some proxy indicators include: (i) extent of shortfall in program implementation; (ii) frequent premature transfers of top-level managers; and (iii) absence of key departments while some others being understaffed.** The extent of shortfall in program realization can be observed across sectors—in education, health, anti-poverty schemes, infrastructure-building -- the shortfall being higher than the all-India average. For example, last year, the health department of the state was able to spend only 68 percent of funds allotted. The implementation of food security programs is unsatisfactory, especially the off take of rice from the Public Distribution System (PDS). According to the Concurrent Evaluation of the Sampoorna Grameen Rozgar Yojna (SGRY) conducted on behalf of the Ministry of Rural Development, Jharkhand had lifted only 18 percent

of the authorized allocation in 2002/03, and only two-thirds of the meager share lifted was distributed to beneficiaries.

18. **While many important departments have not been established yet, some others have serious manpower shortages with numerous technical positions vacant, especially in the districts.** To give one example, the state does not have a department of economics and statistics (DES), vital to the monitoring of development outcomes. Both the finance and the planning departments currently have a severe shortage of technical manpower. The same applies to service delivery departments such as agricultural extension, education and health. In many districts, the share of single-teacher schools is as high as 40-50 percent. In most districts of Jharkhand, the share of female teachers in the total teacher workforce is less than 30 percent, adversely affecting the schooling outcome of girls.

19. **In a state like Jharkhand with a huge mineral endowment and large forest cover, the management and governance of minerals and the natural environment assumes heightened importance.** The localities often get inadequate attention in the rush for mineral development and end up suffering in economic, social and environmental terms. For example, the existing legal framework for regulating land for mineral leases is weak and leaves ample scope for unfair losses for those whose land is acquired. The legal opinion in GoJ seems to be that the Land Acquisition Act (LAA) of 1894, which allows acquisition of land for "public purposes", is the official route for acquiring land for mining leases. However, the LAA does not provide any real space to the affected parties for protest, negotiations or even discussion.

20. **An important "missing institution" in Jharkhand, crucial for inclusive development, is the absence of a popularly elected, administratively and fiscally empowered local government/Panchayati Raj Institutions (PRIs).** This is true both for scheduled and non-scheduled areas leading to low beneficiary participation, poor accountability of service providers, and low user satisfaction. The PRI elections have been put on hold by a court order because of legal challenges over the state's reservations policy, thus aggravating not only the pre-existing feeling of isolation of previously excluded groups but also affecting the institutional performance of development programs on the ground. As per the central Panchayat Extension to Scheduled Areas (PESA) law and the 2001 Jharkhand Panchayati Raj Act, in scheduled areas, the Gram Sabha is to be vested with strong powers, such as the right to approve programs and projects, select beneficiaries, and certify the correct use of funds by the Gram Panchayat (GP) in the form of a utilization certificate. This is potentially a powerful tool for accelerating development in the state, which has remained trapped in the legal imbroglio.

21. **Weak institutions translate into poor service delivery and client dissatisfaction.** This may be seen from a range of indicators culled from a recent beneficiary survey**.** For economic services such as rural roads only 57 percent of the respondents rated the quality of roads constructed as "good". In the case of water supply, 44 percent respondents reported frequent breakdown of water supply. Only a few respondents (4 percent) have reported the availability of constructed drainage systems and even of those who have such access, 44 percent remained dissatisfied because of water clogging and water overflows. The primary health sector appears to be very precarious with high a level of doctors' absenteeism: 47 percent of rural respondents reported doctors' absence in the Primary Health Center (PHC). The other client satisfaction

indicators also tell the same story in rural health. The reasons for poor client satisfaction are many: distance, absenteeism, attitude, inadequate provisioning for maintenance, and low local-level participation.

22. **The factors adversely affecting client satisfaction can be overcome through appropriate institutional reform.** Gradual improvement in the governance of the primary education sector is a case in point. Teacher absenteeism, which was as high as 39 percent three years ago, according to the Pratham study has improved. On average, the share of primary school teachers attending schools was 76 percent while that of upper primary teachers was 75 percent. However, on a single day, only 50 percent of primary schools and a shocking 27.8 percent of upper primary schools had all the teachers present. Although subjective measures such as a user satisfaction survey show primary education in a favorable light, the objective measures indicate a much more serious problem of educational achievement.

23. **Weak institutions for implementing anti-poverty programs tend to bypass a large segment of the needy poor, leading to poor targeting as well as high incidence of program leakage.** All sources indicate that, despite significant investment, only a small percentage of Below Poverty Line (BPL) families benefit from these programs. Using administrative data, even in the best case scenario, program coverage is low, at around 3 percent for self-employment and housing programs, 11 percent for wage employment, and 27 percent for old age pensions for the elderly living below the poverty line. These estimates are very optimistic, as they assume that only BPL families benefited from the programs and that there was only one beneficiary per family per program. Survey-based data allows for a clearer picture. For example, according to a recent Program Evaluation Organization (PEO) evaluation of the Targeted Public Distribution System (TPDS), only 57 percent of BPL families were able to avail of TPDS benefits and a similar evaluation commissioned by the Department of Food and Public Distribution found that those who received benefits still depend on market sources for more than half their rice requirements. The recent evidence for 2005, as generated by the present study, also confirms the picture of low target group coverage. With the exception of PDS, no program covers more than 10 percent of all rural households.

E. Improving Access to Infrastructure Services

24. **Bridging the huge gap in the provision of infrastructure services, a critical requirement for accelerated and inclusive growth, requires large investments along with concurrent institutional and policy reforms.** Investments in infrastructure not only accelerate growth, but also have strong linkage effects with other complementary inputs such as human capital, access to finance, and adoption of new technology. With improved connectivity, for instance, economic and social development literally moves into the areas connected. Improved institutional performance on the other hand reduces the “transaction costs”, which, in turn, increases the productivity as well as the rate of investment via favorable investment climate effects.

25. **Lack of access to infrastructure can be measured in terms of under-provisioning, relative to the rest of India as well, as in terms of high unmet demand in key areas such as transportation, telecommunication, power, water supply and irrigation.** The extent of deprivation is higher in Jharkhand compared to the rest of India and higher in rural areas than in

urban areas. In rural areas, the seriousness of infrastructure constraints, relating to irrigation, power and roads, is indicated, among others, by the NSS data. The rate of irrigation is inadequate and distributed extremely unequally—more unequally than the distribution of physical and human assets. Household access to electricity at 11 percent is extremely low in rural Jharkhand, compared to 48 percent for rural India (the only state that has a lower access rate than Jharkhand in this sample is Bihar). Merely 36 percent of villages in the state have immediate access to all-weather roads compared to the all-India average of 57 percent.[4] Bihar is the only neighboring state, which has a lower rate of all-weather and metal road access.

26. **Improvement of infrastructure is equally important for attracting investment in urban areas as revealed by Investment Climate Surveys**. The availability and quality of infrastructure is a critical constraint faced by firms operating in Jharkhand and cited with equal vigor by potential investors as a major reason for not choosing the state as an investment destination. Jharkhand lags behind the average figure for India on most infrastructure availability indicators, such as road length per 100 sq km, power availability per capita, net irrigated area and tele-density. The picture is starker in relative terms: out of 28 states, Jharkhand ranks 22nd on the aggregate infrastructure index which covers the power, communications, and transportation sectors. Competing states such as Chhattisgarh, Orissa, and West Bengal rank at 17, 14, and 11 respectively. In terms of infrastructure, the sector-wise break-up shows that the state is ranked 21st in communications, 18th in power, and 14th in transport.

27. **It is possible to improve the provisioning of infrastructural services through sector-specific investments and policy interventions.** The formulation of an infrastructure development policy, creation of an infrastructural development board/corporation and an enabling act along the lines of the Andhra Pradesh Infrastructure Development Enabling Act, would facilitate private investment in infrastructure. Some short- and medium- term reform measures in the transport, water supply and sanitation, irrigation and power sectors have been listed in the Box 1.

F. Expanding Rural Opportunities

28. **Expanding rural opportunities in no way means retracting from the urban sector. However, rural opportunities need to be especially addressed in Jharkhand in the light of uneven distribution of access to assets in the state.** Estimates based on the 55th round of NSS indicate that the concentration of landownership in rural Jharkhand, though lower than the all-India average, is considerably skewed. This is despite the legal restrictions on the tribal land transfers, as originally envisaged in the Chhotanagpur and Santhal Pargana Tenancy Acts. The estimated Gini inequality of rural land ownership for the state is 0.64 compared to the all-India average of 0.71. The inequality of landownership in the state is possibly on rise in the recent years through illegal (distress) land transfers. This is borne by the Jharkhand Baseline Survey as well, which finds evidence for increasing inequality in rural landownership over the past decade.[5] The main driver of this process appears to be tribal land alienation. Other non-land assets (including human assets) are also distributed unequally across rural land size-class and poverty categories, but the extent of inequality appears less sharp.

[4] The corresponding figures for village-level access to metal roads are 25 percent and 45 percent.

[5] According to the Baseline Survey, the Gini index of inequality in the distribution of land ownership increased from 0.65 to 0.70 over 1995-2005. The inter-temporal comparison is based on "memory recall" on household land-ownership and should be taken as indicative only.

29. **For the disadvantaged poor, access to favorable market arrangements can improve the return to initial assets.** For example, the land-poor can gain access to land through the tenancy market and the returns to land can be enhanced through improved irrigation. The returns to labor can be higher if the poor have access to jobs with better remuneration and access to capital through credit markets can help support rural farm, off-farm or non-farm diversification. This, however, is not the case in rural Jharkhand.

30. **The major explanation for the rural factor and output markets functioning poorly is the lack of access to rural infrastructure such as irrigation, roads, power, and access to credit.** Among the key infrastructural elements, appropriate irrigation facility is one of the most important. Irrigation-led agricultural growth has been the prime trigger of successful agricultural transformations over the past 30 years in most regions of South Asia. The rate of irrigation remains one of the lowest among all Indian states. According to the Ministry of Agriculture data, the rate is assessed at 11 percent. The NSS data, in contrast, gives a higher coverage, but is still restricted to 23 percent compared to 41 percent at the all-India level. Besides, not only is the rate of irrigation low, it is also highly unequally distributed. Nearly all the irrigated land classified in the NSS data is concentrated in the first two deciles.

31. **Although the limits to extending irrigation are relatively low in Jharkhand (only approximately 40 percent) compared to other states such as Bihar and West Bengal because of land-terrain constraints, irrigation provides a viable entry point for accelerated rural development.** Different types of irrigation possibilities, that is major, medium, micro, and drip irrigation systems can be developed. Indeed, different irrigation technologies involve different ownership mix possibilities: while major and medium irrigation systems are likely to be public sector led, micro-irrigation through water harvesting is suitable for the tribal upland and likely to be community led. In Jharkhand, irrigation coverage did not expand in the past largely because of under-investment in major- and medium-irrigation systems. Returns to irrigation appear to be considerable even in the present context. Based on NSS data, it is estimated that the impact of adding an extra unit of land under irrigation increases the average per capita monthly expenditure by about 17 percent while controlling for regional effects.

32. **The return to rural assets can be enhanced through improved access to physical infrastructure such as electricity and road.** Evidence suggests that access to both electricity and road at the community level can make a considerable difference to average rural incomes. This can be measured by a range of indicators. By simply being located in a village with access to electricity can increase average income (consumption) of a typical rural household by about 22 percent. Good road access conditions can enhance income by approximately 18 percent. The largest impact is noted when a village is directly connected to a wholesale market by good road access; the corresponding difference increases by over 40 percent compared to those communities without such access. The expansion of this basic infrastructure tends to result in the clustering of other infrastructural facilities such as bus-stops, pharmacies, public telephones, post offices and small community- level shops around roads and electricity.

33. **Attainment of secondary and post-secondary education is important for raising rural incomes.** This is because human capital accumulation can raise rural incomes only after it crosses a threshold level. Access to primary education does not have any statistically significant

impact on household income. Education in rural areas has the effect of increasing rural household income only after the post-secondary (10th grade completed and above) education level, suggesting that the incremental effect is rather modest in households headed by someone with secondary education while the gains to completing college education are much higher. The problem is that only a few rural households in Jharkhand can take advantage of this, as access to human capital is extremely limited both at secondary (18 percent of household heads) and post-secondary (5 percent of household heads) levels of education.

34. **Financial access through alternative channels, including those mediated via NGOs and the vibrancy of the local economy, appear to have the favorable impact of increasing average rural income.** Micro-finance and other programs supported by NGOs can have an important effect on income: an average rural household residing in communities with strong NGO presence has higher per capita income than its counterpart without such a facility (the difference is equivalent to 11 percent of average rural per capita consumption expenditure). The most important factor is, perhaps, the vibrancy of the local economy (captured here via the presence of community shops). This factor alone will augment average rural income by an amount equivalent to 17 percent of per capita consumption expenditure.

35. **Once the above-mentioned infrastructural elements are put in place, the entire rural livelihood dynamics can change in a major way.** In the changed context, the role of agricultural extension becomes important both for informed crop choice, depending on the area's agro-ecological potential, and for the dissemination of improved cultivation practices. With a growing marketable surplus, agricultural marketing will expand, which in turn would lead to increased demand for new investments in roads and better maintenance of existing roads to reduce transport costs. The development of transport infrastructure has a direct effect on employment for transport operators. Increasing the purchasing power of the farm sector also raises the demand for goods and services produced by non-farm sectors. This, in turn, creates scope for increasing the productivity enhancing as well as employment generating potential of rural non-farm sectors. Once the demand side constraints are released, access to power (and other inputs) can help release the supply-side constraints in the rural non-farm sectors.

36. These developments will lead to favorable pro-poor changes in the labor market as well. The study diagnosed five important characteristics in Jharkhand's labor markets: (i) the subsidiary status of farming; (ii) predominance of non-agricultural casual labor as the main occupation; (iii) very limited role for rural non-farm self-employment; (iv) relatively higher income for non-agricultural (especially salaried) workers; and (v) increasing rate of distress out-migration. As access to infrastructure, finance and education increases, more remunerative job opportunities will be created in farm and non-farm self-employment than at present. Farming, in particular, will become more profitable -- from being just a subsidiary occupation it will turn into a main source of income for many rural households. This will create the advantageous cycle of greater demand for efficient input use (including farm credit) and agricultural/rural diversification. Greater access to education will also help the exit of labor to more remunerative and regular wage (salaried) labor markets.

G. Alternative Development Paths: Defining a Middle Way

37. **Two opposite views of the development debate are represented by the different degrees of importance given to mining and agriculture.** One view contends that the development of the mining sector can usher in a new decade of development in Jharkhand. It can act as the natural launching pad for growth acceleration and financing of broad-based social development. This view states that since the state has the largest share of mineral Gross Domestic Product (GDP) amongst all Indian states, it should capitalize on its strength and not on its weakness (in this case, crop agriculture with a near total dependence on rainfall). This line of reasoning draws attention to capitalizing on the potentially substantial fiscal gains (mobilizing rents in the form of mineral revenue) and spending the additional gains on rural and social development, thus providing a win-win situation in terms of both growth and equity.

38. **In contrast, the second view is that the potential risks associated with the mining sector are high and that agriculture has shown great potential through impressive growth[6] in recent years contributing significantly to poverty reduction and human resource development.** This line of thinking suggests there is emerging evidence of high risks associated with the unregulated development of the mining sector in conditions of relatively poor governance, apart from the risks of flouting the provisions of social and environmental safeguards. In the absence of a separate capital development fund supported by mineral revenues and exclusively earmarked for rural and social development, the prospects for more than off-setting compensation are uncertain as untargeted funds get used for other less important purposes, besides encouraging corruption. All these can eventually lead to greater destruction of livelihoods rather than their creation. Hence, the natural launching pad is not all that natural after all, and agriculture provides a much safer option given the adverse conditions of governance.

39. **To the extent that technological progress is dependent on the expansion of irrigated agriculture, especially during the winter season, the prospects of agricultural growth in the state will be modest.** Even if judicious investment in irrigation schemes, itself a major undertaking given the past experience in constructing major surface water based irrigation projects, expands the current acreage under irrigation to its potential, it will still be restricted to only 40 percent of the land that can be irrigated in the state.[7] This can be compared to 70-80 percent irrigable land in the neighboring regions of the erstwhile Bengal Presidency that is, Bihar, West Bengal, and what currently constitutes the territory of Bangladesh where the groundwater irrigation potential is huge.

40. Crop sector growth even with the fullest expansion of irrigated acreage every year is likely to remain restricted to the trend growth rate of 3 percent per year and 4 percent per year for the overall agricultural sector as a whole (if one takes the standard achieved in West Bengal and Bangladesh in the best possible agricultural growth scenario). If the state realistically aims at a 6 percent growth rate over the medium term, from the current trend of 4 percent per year, it will have to focus on sectors outside of agriculture as well. With the proportion of agricultural value addition at only 22 percent, agriculture's direct contribution to the overall growth rate under the best possible scenario cannot exceed 15 percent; the remaining 85 percent must be generated in other sectors.

41. **On the other hand, the state is yet to develop appropriate institutional and regulatory conditions, as well as safeguard mechanisms for embarking upon a fast-paced mineral-based growth strategy**. In fact, without having such institutional safeguards firmly in place, an unregulated mineral-based growth strategy can bring in more risks than rewards. This can be judged by several examples. One group of examples relates to the manner in which

[6] The success story in agriculture is based on data up to 2002; hence it needs to be moderated in the light of the drought witnessed in the last three years.
[7] World Bank and Government of Bihar, Bihar Plateau Irrigation Project, 1994.

institutional safeguards of the local people directly affected by mining activities are being addressed, that is the *equity aspect* of mining-based growth. The other relates to the institutional hurdles that genuine private investors face in undertaking new investments in the sector, which is the *efficiency aspect* of mining-based growth.

42. **Given the strengths and weaknesses of the two options, the present study suggests a middle path, aiming at an inter-temporal balance between the two strategies**. While mining and broad-based industrial progress will lead growth over the medium to long-term and create resource mobilization, it is the agricultural and rural sector that needs to be continuously addressed in the short to medium term. This requires several factors to move in tandem. *First*, there is a need to focus on institutional building, especially the aspects dealing with risk, risk-perception, and risk-mitigating measures which are central to promoting growth and the poverty reduction agenda. *Second*, there is need to increase labor productivity in the agricultural and rural sector with high employment and increase in employment in the known rural sectors, especially through the development of small and medium enterprises (SMEs). *Third*, each of the economic sectors should be able to grow to its long-term potential including mining and mineral-based industries. However, efforts to "force in" development of a particular sector without addressing sector governance constraints can backfire in the context of a rather sharp rural/ urban "dualism", and a socially and spatially polarized economy of Jharkhand.

43. **The answer indeed seems to lie somewhere in between, with the crux of the overall strategy aimed at reducing risks associated with mineral-dependent growth, especially in an economy with high levels of poverty and inequality**. Building institutions, increasing labor productivity in agriculture and employment of people in the non-farm sectors to the extent possible through the development of SMEs is a possible way forward in the short to medium term. A balanced strategy would require broadening the manufacturing base beyond mineral-based industries and establishing forward and backward linkages leading to employment generation. In order to promote mining development in a sustained manner, a strong governance framework and institutional capacity is a must to mitigate any social or environmental impact.

H. Social Inclusiveness for Effective Citizenship

44. **Social inclusion and effective citizenship for all are desirable outcomes everywhere, especially in Jharkhand with its sharp social and regional divide.** Comparative poverty profiles across states shows that not only do SC/SC groups have a higher poverty rate than other social groups, the tribal groups in Jharkhand (along with Orissa) have the highest poverty intensity in India—higher than the ST groups in other Indian states.[8] Over the post-emergence years although signs of progress have touched virtually all social groups, the extent of improvement has been unequal, with the tribal groups benefiting the least. This is also reflected in the spatial differences with high concentration of poverty and greater access-deprivation in the remote districts. Hence, the inclusiveness of the tribal groups and remote areas is a priority issue from the vantage of citizen rights.

45. **Tribal inclusion can be achieved through broad-based social sector investments as well as civic and community empowerment.** Jharkhand can achieve higher social progress

[8] The head-count incidence of poverty for the ST group is 71percent in Orissa and 56 percent in Jharkhand compared with 47 percent in West Bengal, 40 percent in Bihar, and only 27 percent in AP, as estimated by the present study from the NSS 55th round.

such as basic education and health Millennium Development Goals (MDGs) even at relatively low levels of income, and can improve upon the coverage, targeting and efficiency of the social protection schemes for the most needy and vulnerable. In the medium term, institutional arrangements need further development of public-private-NGO partnership within a permanent collaborative framework that ensures efficient service delivery.

46. **Promoting social inclusiveness will be important for achieving sustainable development as well.** The weakening of socio-political institutions required for protection of both weaker groups and natural resources represents a threat both to tribal society and to the environment. The weakening of traditional institutions also threatens the environment and National Resource Management (NRM) based livelihoods.

47. **An important step would be to bridge the current gap between "legal" and "customary" rights by explicitly recognizing tribal institutions in Jharkhand as an expression of direct democracy.** In particular, customary land tenure should be recognized. People should be "consulted on their vision of development"; their land should not be acquired without their prior and "informed consent (instead of mere consultation)"; they should have "shares in any project that comes up on their land" with their land ownership remaining intact; and they must be "asked to move only if rehabilitation has been satisfactorily completed".[9]

48. **Finally, political commitment is needed to "make development happen" in the shortest possible time**. There is need to ensure that the political gains achieved through years of struggle to create a separate "tribal state" start yielding significant economic benefits. It is time that the voices of the left-out majority of the state are finally heard and their problems acted upon, and that an accelerated and inclusive growth strategy finally ushers in a new development decade for Jharkhand.

Short- and Medium-Term Policy Options for Reform

A. Improving the Investment Climate to Promote Broad-Based Growth

Short Term

- Removing regulatory constraints, including: (i) setting up a single-window clearance facility for approval of new projects, empowered by legislation; and (ii) transparency of approvals by setting standards and time frames for issuing clearances, with provisions for deemed approval if such clearances are not obtained within declared time frames.
- Improving access to land: (i) creating an industrial land acquisition and facilitation agency for development and management of industrial parks in the state; (ii) creating a land bank for industrial purposes, at least for urban areas based on rational land-use planning principles consistent with the compensation and safeguard policies; and (iii) improving credit information on SMEs through assistance to commercial banks and financial institutions to verify and collate historical data on SMEs.
- Enhancing access to finance through improvement in the credit evaluation and risk management skills of banks and other financing institutions. This would improve lending practices by building capacity to reduce transactions costs and also reduce and manage risks related to SME lending.

Medium Term

[9] Sundar (2003).

- Computerizing and updating of land and property records that impede the use of land as collateral, and promoting the use of collateral substitutes.
- Strengthening business development services and market linkage programs for SMEs to improve competitiveness, profitability and creditworthiness.
- Amending the Contract Labor Act at the state level to allow contract labor to be employed in non-core activities subject to certain conditions.
- Adopting the amendment to the Industrial Disputes Act in line with the proposed central bill amendment to enable easy exit options for industries.

B. Improving Access to Quality Infrastructure

Short Term

- Formulating an infrastructure development policy, creating an infrastructural development board and corporation, and an enabling act to facilitate private investment.

Transport

- Assigning the core rural road network to the State Road Development Agency, making it functional by providing necessary staff and resources, and applying the procedures used in the Pradhan Mantri Gram Sadak Yojana (PMGSY) across the sub-sector.
- Assigning the core highway network to a semi-autonomous State Highway Authority, after a functional reclassification of roads, to be managed along commercial lines as provided for under the Jharkhand Highways Bill.

Water Supply and Sanitation

- Creating awareness about the links between sanitation and health through campaigns.

Irrigation

- Upgrading the technical skills of personnel in the water resources department to enable them to design, operate and maintain modern irrigation infrastructure.
- Unbundling water resource management from irrigation service provision, setting up of new institutional arrangements with a state-level apex body like the State Water Resources Agency, appointing an independent regulator to encourage public-private partnerships in developing mini hydroelectric stations and irrigation systems with specialized agricultural crop zones.

Power Sector

- Improving financial reporting and internal controls for each company, including internal auditing, procurement, fuel supply and metering, billing and collection for large power consumers.
- Increasing representation of independent non-executive directors on the boards of power companies through a transparent, competitive recruitment process.
- Operationalizing the corporate restructuring, including: (i) competitive recruitment of managers for each new company; (ii) development of human resources in accounting and audit functions; and (iii) establishing new financial management systems for each new company.
- Drafting a clear policy vision for the sector, including plans for restructuring.
- Evaluating subsidies including an analysis of the distribution of the benefits and development of an institutional mechanism to work out cross indebtedness.

Medium Term

Transport

- Improving and modernizing the Ranchi Airport.

- ⇦ Assigning user charges and road transport improvements.
- ⇦ Creating a computerized management information system (MIS), for state and rural roads to inventories, and then managing assets more effectively as well as concurrent reforms in business procedures in procurement, supervision, monitoring and financial control.
- ⇦ Developing an Inland Container Depot (ICD)/dry port for completion of all customs formalities for imports and exports, with direct connectivity to Kolkata and Haldia ports.

Water Supply and Sanitation

- ⇦ Investment in key business processes such as MIS, data collection, financial management and procurement procedures of the Drinking Water Supply (DWS) department, sector NGOs, and other key players.
- ⇦ Ensuring that all sector funding streams are integrated into a single financial structure overseen by one body.

Irrigation

- ⇦ Designing an investment plan based on a robust set of data used in a Decision Support System (DSS) model with appropriate cash flow forecasts.
- ⇦ Community participation and involvement of all stakeholders to enhance accountability.
- ⇦ Up-scaling of irrigation infrastructure to improve productivity of water and land through agricultural intensification and diversification to income-earning crops that can be grown with limited water, using improved irrigation and agricultural technologies.
- ⇦ Completing of ongoing schemes as quickly as possible in a rational manner.
- ⇦ Developing hydropower for increased irrigation through groundwater exploitation by shallow or open dug wells.
- ⇦ Focusing on minor irrigation along the lines of the Gram Bhagirathi Yojana, with emphasis on participatory irrigation management.
- ⇦ Groundwater exploitation should be through dug well and shallow tube wells and should not be more than the recharge.

Power Sector

- ⇦ Developing business turnaround strategies for each company.
- ⇦ Increasing transparency and accountability of new power companies to a broader range of stakeholders.
- ⇦ Establishing commercial transactions between financially independent companies, including power purchase agreements between the generation and distribution companies and a separate licensing and tariff regulation for each new company.
- ⇦ Creating opportunities for new lower cost entrants to provide power generation and electric service in rural areas.
- ⇦ Increasing investment in the sector by improving sector finances, which will in turn improve the range of financing options.

C. Addressing Issues in the Mining Sector

Short Term

- ⇖ Finalization of the draft of the India Mining Development Policy.
- ⇖ Strengthening the capacity of the Jharkhand Pollution Control Board to monitor and enforce compliance of the legal and regulatory framework.
- ⇖ Decentralizing responsibilities to regional offices and upgrading administrative and technical skills.
- ⇖ Amending the Indian Coal Bearing Areas Act to permit private investment in the coal sector.

Medium Term

- Rationalizing consent management based on environmental risks and re-allocating resources towards more effective inspection and monitoring.
- Shortening the permit process by eliminating discretion in the implementation of the law.
- Reducing speculation and encouraging active exploration through structured license fees.
- Introducing a modern, computerized, on-line, rules-based mining rights cadre to enable quicker and transparent access to minerals and securing appropriate mining titles on a "first come first serve basis".
- Preparing guidelines for environmental impact assessments, environmental management and community development plans.
- Addressing compensation issues in consultation with all stakeholders, especially local communities.
- Preparing a consultation framework to facilitate rational land use planning, community development and sharing of benefits between local and indigenous peoples, and the dual use of designated forest areas with progressive rehabilitation and afforestation.
- Improving transparency and revenue management by adoption and implementation of the principles of the Extractive Industries Transparency Initiative (EITI).

D. Improving Governance and Service Delivery

Short Term

- Curbing premature transfers by: (i) introducing computerized transfer processes at lower levels; (ii) creating a statutory civil services board at higher levels of the system; (iii) establishing a computerized database to track transfers and monitor compliance with a three-year average tenure norm and (iv) imposing quantitative caps to limit transfers.
- Revising manuals for the greater use of information technology and recasting of secrecy provisions to ensure consistency with the Freedom of Information Act (2005).
- Ensuring greater accountability and transparency through e-governance and full implementation of the Right to Information legislation.
- Strengthening the presence and quality of block administration through more visits to the districts and blocks by senior government officials.

Medium Term

- Clustering departments to improve functional efficiency with a minister and principal secretary for each cluster.
- Removing schemes of marginal value, curtailing unproductive expenditures and making monitoring more effective though zero-based review of all schemes.
- Improving performance and career management, moving towards a merit-based civil service, with an improved performance management system of Grade I and Grade II officers.
- Amending existing state legislation contradicting the central PESA Act or the Jharkhand Panchayati Raj 2001 Act and ensuring compatibility between the two.
- Devolving real power and resources to PRIs through administrative and fiscal measures.
- Clarifying the powers of different tiers of the PRI system through an activity mapping exercise involving critical line departments, elected PRI representatives, and NGOs and publicizing them through training sessions with the media.
- Placing teachers, para-medics and Primary Health Centre (PHC) doctors under the direct control of PRIs.
- Working with civil society groups to implement programs, train PRI representatives and evaluate public services.

E. Fiscal and Public Expenditure Management

Short Term

- Passing the Fiscal Responsibility and Budget Management Act (FRBMA) incorporating medium-term fiscal targets.
- Drawing up the Medium Term Fiscal Program (MTFP) to meet the FRBMA targets.
- Adopting expenditure control measures such as restrictions on the creation of new posts, rationalizing of existing posts and a ceiling on contingent liabilities.
- Create a separate Mineral Revenue Fund designed to support development activities, especially for supporting rural and social development, in order to ensure the effective use of mineral revenues, as untargeted funds run the risk of being used for less important purposes, besides encouraging corruption.

Medium Term

- Implementing the FRBMA and the MTFP targets.
- Following a realistic budgeting process involving line departments and reflecting policy objectives, leading to performance based budgeting within the context of a medium-term expenditure plan.
- Simplifying procurement rules, adopting electronic procurement, increasing oversight and monitoring and training programs for officials.
- Creating a Finance and Accounts cadre for treasuries, budget division and internal audit division and modernization of treasury functions.

G. Strengthening Human Development Strategies

Short Term

Health

- Strengthening the drugs management system and the health MIS.
- Using demand side financing, a means of transferring purchasing power to specified groups, for the purchase of health services.

Education

- Providing incentives such as conditional cash transfers (CCT) to households to send their children, especially girls, to school with enhanced emphasis on the *completion* of primary and secondary education.
- Filling up vacant positions with teachers possessing subject-specific knowledge for upper primary and secondary schools, additional teachers to ease the burden of multi-grade teaching in single-teacher schools, adequate female teachers and teachers who understand the local tribal language and are sensitive to the contextual culture.

Medium Term

Health

- Prioritizing available resources for: (i) priority health services (PHS) with focus on reproductive and child health care and improving maternal and child nutrition; (ii) focusing PHS on the poor; and (iii) extending financial protection to the poor against major illness.
- Human resource management including development of job descriptions and introduction of performance based management systems.
- Scaling up of the public health service delivery by public and private providers.
- Developing and strengthening organizations and systems such as planning and budgeting, financial management, quality assurance, monitoring, procurement and finally, regulation and accreditation.

- ⇦ Promoting local oversight for delivery of public health services**.**

Education

- ⇦ Upgrading Education Guarantee Schemes (EGS) into primary schools in a phased manner.
- ⇦ Providing the minimum pre-service and regular in-service training to teachers without formal teacher training.
- ⇦ Analyzing the tenure, qualification requirements, standardization, selection, appointment, pre-service and in-service training of para-teachers.
- ⇦ Setting up of the State Institute of Education Management and Training (SIEMAT) and strengthening the links between all these support systems.
- ⇦ Provide technical support to the State Institute for Education Research and Training (SIERT) and State Institute of Educational Management and Training (SIEMAT) in curriculum revision, textbook development, and training of trainers training at the district level, and strengthening capacity for research and evaluation.
- ⇦ Addressing under-spending of Sarva Shiksha Abhiyan (SSA) allocations and identifying activities using the innovative grants in SSA aimed at introducing state- specific interventions.
- ⇦ Promoting public-private partnerships, especially at the secondary level since 10 percent of the total schools are under grants-in-aid.
- ⇦ Increasing private institutions under grants-in-aid.
- ⇦ Expanding the vocational education sector.

Chapter 1: A New State: Emergence, Features and Challenges

1.1 The state of Jharkhand, India's twenty-eighth state was carved out of southern Bihar and came into existence on November 15, 2000. It is bound by Bihar on the north, West Bengal in the east, Orissa in the south and Chhattisgarh and UP in the west. It covers an area of 79,714 sq km, with 22 districts, 32,616 revenue villages and a population of 27 million according to the 2001 census. With 28 percent of the state's population comprising tribal communities (compared to the all-India average of 8 percent), Jharkhand was created as a "tribal state".

1.2 The historical evolution of the state has an important bearing on the understanding of its current conditions. The creation of this state was mobilized by the Jharkhand Mukti Morcha (JMM) movement that gathered momentum in the mid-1980s. However, the move for a separate state goes right back to the time of independence when, in 1947, the All India Jharkhand Party came into being. In short, the creation of the new state had antecedents of considerable political and social mobilization.[10] Following the bifurcation of the state, a BJP coalition came into power in Jharkhand with the state assembly being made up of legislators elected in the last all-Bihar elections that took place in 2000. The state had its first elections in February 2005 that were closely contested and resulted in a BJP coalition returning to power. The opposition comprised the JMM, Rashtriya Janata Dal (RJD), Indian National Congress and the Communist Party of India (CPI).[11]

1.3 Jharkhand has a rich endowment of natural resources – forests, minerals and abundant land. With only 2.7 percent of the population of India,[12] the state possesses approximately 33 percent of its mineral reserves, and is particularly rich in coal and iron ore. The Dhanbad-Jharia coal belt, the minerals of Giridih and the steel towns of Jamshedpur and Bokaro are among its national assets.

1.4 There were several advantages that emerged from the separation of Jharkhand from Bihar. It took away a bulk of the parent state's industrial, educational, mineral and forest assets and one-third of the population. But Jharkhand remains, along with residual Bihar, among the most food-insecure states in the country. The Vision 2010 document of the government admits to a 52 percent deficit in food grain production, with 230 grams per capita daily availability against the all-India average of 523 grams. Undivided Bihar had the highest rate of child malnutrition in the country in 1992/93. This is still true of Jharkhand today as indicated by the recent 2005/06 National Family Health Survey (NFHS) round.

1.5 The monitoring and analysis of the economy is severely constrained due to the lack of data not only for the period up to 2000 but also for the last five years. A quantitative review of the economy can thus be regarded only as broadly indicative. However, despite inadequate data, certain key features of the economy and development challenges emerge.

[10] On the history of the formation of Jharkhand as a political identity, see Prakash (2001) and Corbridge *et al* (2004).
[11] The ruling political coalition, however, remains fragile, as indicated by the recent political development, whereby a new coalition government came to power in September 2006.
[12] According to the 2001 census.

A. Poverty and Social Indicators

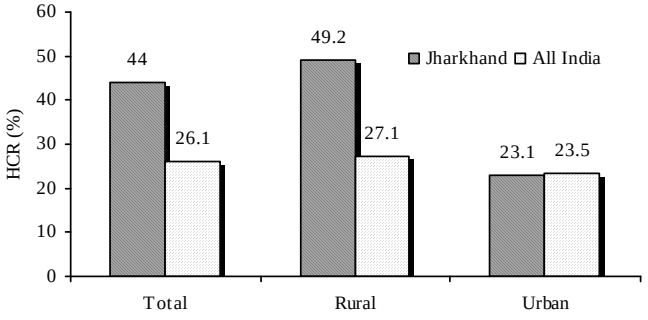
1.6 **Jharkhand has one of the highest levels of poverty in India, with a sharp contrast between rural and urban poverty**.[13] The incidence of poverty at the state level is assessed at 44 percent in the state compared with 26 percent for India as a whole (Figure 1.1 and Table 1.1) There is, however, a sharp contrast between rural and urban poverty. The incidence of rural poverty, assessed at 49 percent in 1999/00, is the highest among all Indian states, with the second highest being Orissa (48 percent), followed by Bihar (44 percent), Assam (40 percent), and MP (37 percent).[14] In contrast, the incidence of urban poverty is only 23 percent, which is similar to or better than many advanced states such as AP and Maharashtra (27 percent), Karnataka (25 percent), Tamil Nadu (23 percent), and much lower than in Orissa (44 percent) and Bihar (34 percent).[15]

Table 1. 1: Trends in Poverty as per NSS Thick and Thin Rounds

Poverty Measures	Thick Rounds (50th & 50th)		Thin Rounds (53rd & 58th)	
	1993/94	1999/00	1997	2002
Rural				
Head-Count	61.7	49.2	59.4	47.1
Poverty Gap	16.1	10.1	15.7	10.5
Squared Poverty Gap	5.6	3.1	5.5	3.3
Urban				
Head-Count	27.7	23.1	10.3	14.5
Poverty Gap	5.4	5.3	2.4	1.7
Squared Poverty Gap	1.4	1.8	1.0	0.3
All				
Head-Count	55.6	44.0	50.6	40.6
Poverty Gap	13.9	9.0	13.3	8.7
Squared Poverty Gap	4.8	2.9	4.7	2.7

Source: Estimated from the unit-record data of successive NSS rounds using Jharkhand-specific poverty lines. Comparisons are valid only within each category of NSS rounds. These are "unadjusted" poverty numbers based on reported consumption in Schedule-1 of NSS (see, footnote 1 below).

Figure 1. 1: Poverty Headcount – Jharkhand & All-India (1999/2000)



Source: Estimated from NSS 55th round, Schedule 1.

1.7 An analysis of poverty trends based on NSS rounds throws up interesting results:

- **There is broad consistency in annual growth rate estimates between survey-expenditure and GSDP data.** The annual growth rate in per capita consumption expenditure, as estimated from the NSS data, is around 2 percent for the thick round interval and 1.7 percent for

[13] In most cases data was not available after 2002, limiting the team's ability to fully diagnose and access the impact on poverty reduction.

[14] Note that these poverty estimates are "unadjusted" i.e. without making any Deaton-Dreze (2002) type of adjustment for any possible overestimation of per capita monthly consumption from the simultaneous recording of food consumption through 7-day/ 30-day memory recall in Schedule 1 of NSS. Hence, only the official poverty numbers are used here for state-level comparisons for both rural and urban poverty.

[15] In this respect Jharkhand does not stand alone. In fact, the sharpest rural-urban contrast is provided by Assam where the incidence of urban poverty is only 7 percent compared with the rural headcount of 40 percent. Strikingly, both the states have abundant natural resources.

the thin round (Table 1.2). This may be compared to 2.4 percent estimated from the GSDP data.

Table 1. 2: Summary Statistics on Consumption Growth and Consumption Inequality (1993-2002)

Year	Rural				Urban			
	Poverty Line	Mean	Mean/Poverty Line	Gini Index (%)	Poverty Line	Mean	Mean/Poverty Line	Gini Index (%)
Thick Round								
1993/94	212	215	101.4	23.7	239	421	176.7	34.2
1999/00	333	376	112.8	22.2	341	673	197.4	36.0
Thin Round								
1997	278	292	105.0	25.3	285	624	218.9	28.8
2002	348	391	112.9	21.8	356	819	230.0	32.5

Table 1. 3: Decomposition of Changes in Poverty Measures into Growth and Inequality Components (change in percentage points)

	Growth Component	Inequality Component	Residual	Total Change
Rural				
Thick Rounds				
H	-14.14	0.32	1.28	-12.54
P (1)	-5.61	-1.40	0.97	-6.04
P (2)	-2.41	-0.71	0.61	-2.51
Thin Rounds				
H	-6.92	-4.21	-1.12	-12.25
P (1)	-2.84	-2.50	0.17	-5.17
P (2)	-1.27	-1.14	0.20	-2.21
Urban				
Thick Rounds				
H	-7.43	1.87	1.01	-4.55
P (1)	-2.20	2.16	-0.03	-0.07
P (2)	-0.73	1.30	-0.21	0.36
Thin Rounds				
H	-1.57	6.73	-0.94	4.22
P (1)	-0.36	0.02	-0.32	-0.66
P (2)	-0.13	-0.56	-0.04	-0.73

Note: Poverty line (Rs./person/month) and mean (Rs./person/month) are in current prices. Thick and Thin rounds results are not comparable. However, comparisons are possible within each category of NSS rounds.
Source: Estimated from the unit-record data of successive NSS 50th and 55th Thick rounds and 53rd and 58th Thin rounds.

Note: Poverty line (Rs./person/month) and mean (Rs./person/month) are in current prices. Thick and Thin rounds results are not comparable. However, comparisons are possible within each category of NSS rounds.
Source: Estimated from the unit-record data of successive NSS rounds.

- **Jharkhand has made considerable progress in reducing poverty since the early nineties, as indicated by data from both the thick and thin rounds.** While comparisons are not possible across thick and thin round estimates, one can go by the rate of progress within each category of

NSS rounds (Table 1.2). The rate of overall poverty reduction was quite impressive—about 2 percentage points a year. This may be compared to 2.5 percentage points a year observed at the all-India level during the same period.

- **The comparative performance was highly uneven between rural and urban areas with faster progress recorded for rural areas.** In general, the pace of rural poverty reduction was faster in both thick and thin round intervals. The incidence of urban poverty dropped as per the thick round, but rose as per the thin round NSS data.

- **The Gini index of consumption inequality has dropped for both thick and thin round intervals for rural areas, while it rose for urban areas.** The latter has increased from 34 to 36 percent during 1994-2000, and rose at an even higher pace during 1997-2002 (Table 1.2).

Table 1. 4: Key MDG and Social Indicators 2000

Indicators	Jharkhand	India
Poverty and Child Malnutrition		
Poverty Head-Count (official estimate)	44	26
Percentage Children Underweight	54	47
Percentage Children Stunted	49	46
Education		
Literacy Rate (6 & above)	54	65
Male	68	75
Female	39	51
Net School Attendance (6-14)	64	77
Boys	71	80
Girls	56	74
Health		
Infant Mortality Rate (2005/06)	69	57
Percentage Children Fully Immunized	9	42
Immunized against Measles	18	51
Immunized against DPT (3 doses)	22	55
Population Growth Rate (1991-2001)	2.3	1.7
Contraceptive Use (any modern method)	25	43
Sanitation Access	15	30
Maternal Vaccination (TT)	51	67
Births Attended by Skilled Attendants	18	42
Percent of Households with Access within 15 Minutes of Safe Water Supply	34	62

Source: NSS 55th round, NFHS-II, NFHS-III, and Population census 2001.

- **While growth has been the most important explanatory factor underlying the drop in the measures of poverty, contemporaneous changes in inequality also played an important role in both the rural and urban areas.**[16] This is confirmed by decomposing the changes in poverty rates into growth and inequality components (Table 1.3). Thin rounds data provide dramatic contrasts between rural and urban areas in this regard. In rural areas, poverty would have been reduced by only 7 percentage points during 1997-2002 instead of the 12 percentage points actually observed, but for the shifts in the distribution of consumption in favor of the rural poor. In comparison, poverty in urban areas would have dropped by 7 percentage points instead of 5, due to off-setting adverse shifts in the distribution of consumption hurting the urban poor.

[16] This does not mean that the distribution can be necessarily improved without disrupting the present growth process. The decomposition results are meant to draw attention to initial inequality as a factor of poverty reduction.

- **The state's key social indicators such as literacy, enrolment, infant mortality and child nutrition, are well below the all-India average (Table 1.4).** Although positive changes have been registered in most of these indicators since 2000 there has been striking deterioration in respect of two key indicators during 1998-2005. These relate to the areas of child malnutrition and infant mortality. The prevalence of child malnutrition (as measured by the proportion of underweight children) has increased from 54% to 59% between the last two NFHS rounds carried out in 1998/99 and 2005/06. Similarly, the infant mortality has risen from 54 deaths to 69 deaths per thousand live births. On account of both these indicators the state's current record appears worst or next to worst among all Indian states. Firstly, the proportion of children underweight in the state, which is assessed at 59%, can be compared to 60% in Madhya Pradesh, 58% for Bihar, 52% in Chhattisgarh, 44% in Orissa, 40% in Assam, and much higher than the all-India average of 46%. Secondly, the infant mortality rate in the state, which stands at 69 deaths per thousand live births, may be compared with 70 in Madhya Pradesh, 62 for Bihar and 57 for the all-India average.

B. Growth and Employment

1.8 **Contrary to its image, Jharkhand is predominantly a mining and industrial state.** Close to half of the GSDP of the state accrues from industry with mining, quarrying and registered manufacturing contributing nearly 78 percent of the state's industrial output. It is the country's most mineral-intensive state, with mining and quarrying accounting for 14.3 percent of the GSDP (as compared to 2.3 percent for the rest of India), and manufacturing for 27 percent (as compared to only 17 percent for all India in 2004).

Figure 1. 2: Sectoral Shares in GSDP

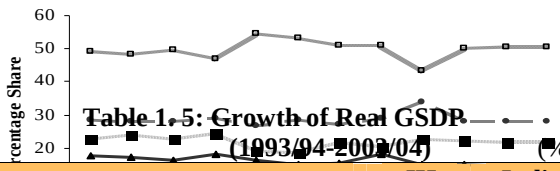


Table 1. 5: Growth of Real GSDP (1993/94-2003/04) (%)

	JH	India
Agriculture and Allied	4.0	2.2
Industry	4.8	5.9
Industry- Mining	3.0	4.6
Services	5.3	8.2
GSDP	4.8	6.0

Source: Central Statistical Organization.

1.9 **Forestry, from which the state derives its name, contributes only about 1.3 percent of the GSDP.** It is interesting to note that the shares of industry, agriculture and services have remained more or less constant over the last 10 years, with industry contributing nearly 50 percent and both services and agriculture contributing 28 percent and 22 percent respectively year after year (Figure 1.2).

Source: Central Statistical Organization.

Table 1. 6: Comparison of Per Capita Growth Rates

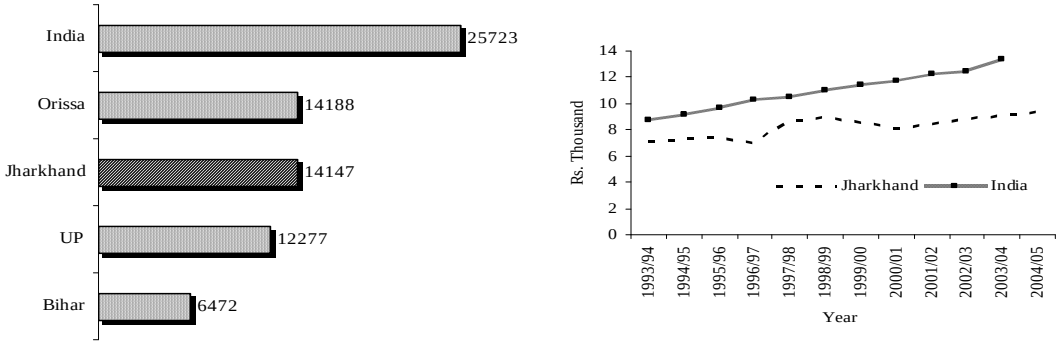
	1993/94 - 2003/04	
	Nominal	Real
Jharkhand	6.58	2.44
Bihar	7.19	2.28
Orissa	8.38	2.52
Tamil Nadu	10.00	3.97
Andhra Pradesh	10.65	4.69
Karnataka	10.68	5.82
West Bengal	11.80	5.55
All India	9.90	3.97

Source: Central Statistical Organization.

1.10 **Jharkhand's economy grew at an estimated rate of about 4.8 percent from 1993/94 to 2003/04, compared to 6.0 percent for all India (Table 1.5).** Almost all sectors show huge volatility in growth rates year on year. While the agricultural sector grew at a rate of 4 percent (higher than 2.2 percent for all India), the industrial and services sectors grew at lower than the all-India rates. The mining sector, which contributes nearly 15 percent of the GSDP (six times more than the all-India level), grew at only 5.3 percent, compared to an 8.2 percent growth at the all-India level.

1.11 **The high level of industrialization has not translated into high levels of income for the state.** While the per capita income of the state is higher than that of states like Uttar Pradesh or Bihar, it is about half that of the national average (Figure 1.3). The state's nominal per capita income of Rs.14,147 ($314 approx.) in 2003/04 is below that of countries such as Bangladesh ($400) and the average per capita income of Sub-Saharan Africa ($510) as well as states like Orissa, while it is more than double that of Bihar. The gap between the growth of income between Jharkhand and the rest of India has been widening as the state's per capita income has grown only at 3.4 percent per annum compared to 4.8 percent for all India between 1993/94 and 2003/04.

Figure 1. 3: Growth Gap between Jharkhand and Rest of India



Source: Central Statistical Organization

1.12 **Jharkhand's per capita income has increased slower than that of other states between 1993/94 and 2003/04.** It ranks below Andhra Pradesh, Bihar, Karnataka, Orissa, Tamil Nadu, and West Bengal as well as the Indian average in nominal terms and among these states, it only scores above Bihar in real terms.

1.13 **Lower per capita GSDP can be attributed to low levels of productivity across different sectors.** Given that labor force participation rates are roughly similar (32.9 percent for the state against 33.6 percent for India), lower per capita GSDP in the state can be largely attributed to lower productivity. In 1999/2000, nearly 90 percent of the state's workforce was employed in sectors where productivity levels were lower than those for India (Figure 1.4 and Table 1.7). These sectors included agriculture, mining, utilities, construction, trade and hotels, and storage,

Table 1. 7: Productivity Growth in Jharkhand by Sector (1993-2000)

	1993/94		1999/00		1993-00
	Share in GSDP	Share in Employment	Share in GSDP	Share in Employment	Productivity Growth
Agriculture & Allied	22.7	64.7	21.7	59.4	3.6
Industry	49.1	15.7	51.1	19.7	-0.6
Mining	17.6	3.3	15.4	3.5	-0.5
Manufacturing	23.9	7.4	30	9.6	2.1
Others	7.6	5	5.7	6.6	5.7
Services	28.2	19.6	27.2	20.9	1.1
Overall	100	100	100	100	2.7

Source: Estimated from NSS 50th and 55th rounds, Schedule 10 and CSO data.

transport and communication; they contributed close to 60 percent of GSDP. Manufacturing accounted for 30 percent of GSDP but employed less than 10 percent of the workforce. Further, this diagnosis seems to hold true over time. At the all-India level, the largest increases in labor productivity have been in mining, manufacturing and financial services. Of these, Jharkhand has witnessed a negative growth rate in labor productivity in mining, while the growth of labor productivity in manufacturing has been less than half the all-India figure. Financial, insurance and business services clearly surpassed the all-India growth rate and also showed the highest level of productivity in 1999/00, but contributed only 8 percent of GSDP and negligible employment. Thus even though the state has a large share of industry in GSDP, this has not translated into a high per capita income.

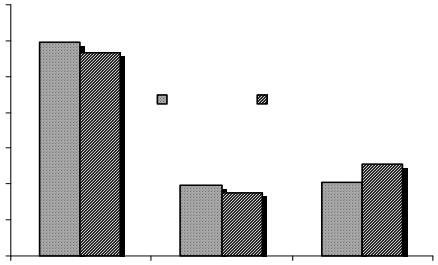
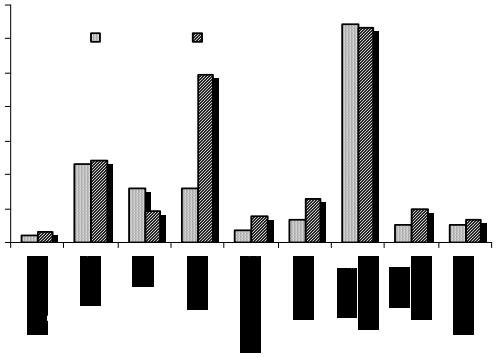


Figure 1. 4: Productivity Levels: Jharkhand and India (1999/2000)



1.14 **While the structure of output indicates a high level of industrialization, the structure of employment reveals the predominance of agriculture**. Nearly 60 percent of the employment in the state stems from agriculture (1999/00), with industry and services accounting for 20 percent each (Figure 1.5). These figures are not vastly different from employment trends across the country, as at an all-India level agriculture accounts for 57 percent, while industry and services account for about 18 percent and 26 percent respectively. While the agricultural sector employs 60 percent of the labor force, it contributes only about 20 percent to the GSDP of the state. This sector with its low productivity and large employment contributes greatly to the high rural poverty in the state.

C. Prioritizing Development Challenges

1.15 Jharkhand, like many other low-income states, is confronted with many development challenges, some being more important than others from the perspective of a medium-term strategy. As pointed out earlier, the state has experienced a modest growth rate of 2.4 percent per year in GSDP over the last decade and about 2 percent per year in consumption expenditure over 1997-2002, as estimated from the NSS survey. With one of the highest levels of poverty incidence in India, the state needs to accelerate the overall growth rate and also make it pro-poor.

Identifying Bottlenecks to Growth

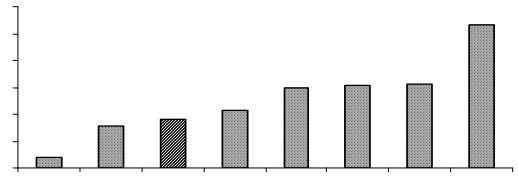
1.16 **A growth diagnostic for Jharkhand reveals that poor infrastructure and lack of institutional development are two major constraints to growth.** Infrastructural investments not only accelerate growth, but have strong linkage effects with other complementary inputs such as human capital, access to finance, and adoption of new technology. With improved connectivity, for instance, economic and social development literally moves into the connected areas. The impact of infrastructure is larger when used in combination and when designed to link major growth centers.[17] This is because infrastructural elements such as roads, power, telecommunication, water and sanitation, irrigation and storage capacity are often synergistic in nature. Improved institutional performance, on the other hand, reduces the "transaction costs", which, in turn, increases productivity of as well as rate of investment via favorable effects on investment climate**.**

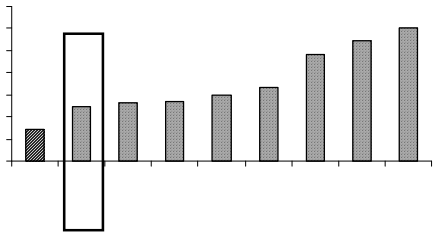
Access to Infrastructure: Impediments and Improvements

1.17 **Lack of access to infrastructure can be measured in terms of: (i) under-provisioning relative to the rest of India; and (ii) high unfulfilled demand in key areas such as transportation, telecommunication, power, water supply and irrigation.** The extent of deprivation is higher in Jharkhand as compared to the rest of India and higher in rural areas than in urban areas.

1.18. **Jharkhand (along with Bihar) has one of the poorest road connectivity among all Indian states, resulting in high transportation costs. Gains from road investments can be quite high especially when all-weather, good quality roads connect communities with "growth centers".** The centers reduce the cost of doing business, especially for the small and informal sectors and for those residing in rural areas. This can be measured both in terms of road density as well as surfaced to total road ratio (Figure 1.6 and 1.7). In terms of road density the state ranks third lowest in this sub-sample, better than Bihar and AP, but much worse than the other states such as Orissa and West Bengal. In terms of the proportion of surfaced roads in total road length, a more revealing indicator, the state ranks the lowest. The extent of the high shadow price on roads can be assessed from the relatively high returns on roads in the state. Households residing in villages with good

Figure 1. 6: Road Density





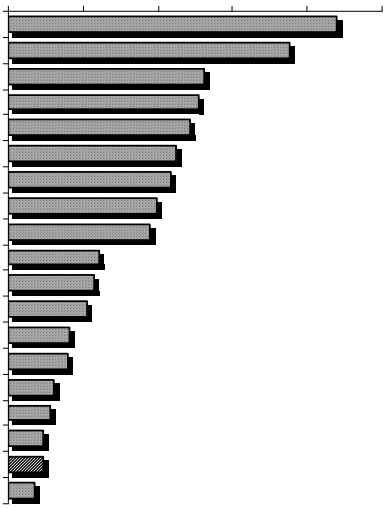
[17] One obvious consideration would be to use infrastructural inve or example, to prevent the often-noted phenomenon of "roads to nowhe

approach road connectivity have, on average, 18 percent higher income than their counterparts without such access. The largest impact is noted in households, which reside in villages directly connected to wholesale markets by good road access (where the difference increases to over 40 percent).[18] Hence, significant gains can be achieved with improved road connectivity.

1.19. **Improvements in road service delivery require better planning, core process improvements, investments and rural road management in the near future**. A medium to longer term objective could be to assign larger responsibilities, foster ownership, user charges and road transport improvements in general. The creation of a computerized MIS is absolutely essential for planning and taking stock of assets. Core process improvements, such as transparency in public procurement including better performance-based contracts for both investment and maintenance can enhance sector outcomes. Simultaneously the sector requires huge investments, roughly 2-3 times of recent annual outlays. Rural roads are being funded through the Pradhan Mantri Gram Sadak Yojana (PMGSY), and the best way forward would be to expand well-established policies and procedures under this scheme to cover all rural roads.

1.20. **Jharkhand has one of the lowest tele-densities in India. The state ranks third from the bottom with slightly improved ratios compared to Chhattisgarh and Bihar.** The lack of telecommunication places the rural poor in Jharkhand at a clear disadvantage compared to other states. This is especially true as a third of the population lives in difficult high terrain where it is not easy to build routine road networks (Figure 1.8).

Figure 1. 8: Overall State-wise Teledensity (2004/05)

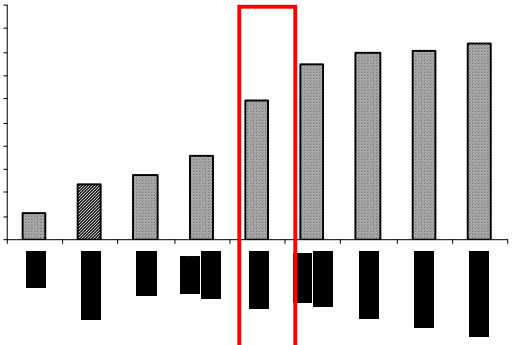


1.21. **The power sector in Jharkhand has good business potential.** The state is well endowed with coal and has the potential for low-cost power generation, particularly if power plants can be set up in the vicinity of coal mines. The sector has a good consumer mix, with a high proportion of industrial load. In addition, the state is free from the legacy of large supply of power to agriculture and low tariffs that plague most states in India.

[18] Estimated from the Rural Jharkhand BaseLine Survey Data (see Chapter 3).

1.22. **Despite the good business potential, access to power in the state is very low, as judged from per capita availability, community connectivity, and household access.** The average power consumption is only 30 kwh per capita, the lowest in India, (Bihar touching 45 kwh per capita) as compared to 373 kwh per capita for all India. Only 40 percent of the communities in the state have power connectivity (second lowest after Bihar) as against 86 percent at the all-India level.[19] The gap between the state and the rest of India is even more striking at the household level. Only 23 percent of households have access to electricity compared with the all-India average of 59 percent (Figure 1.9), while in rural areas access is less than 10 percent.[20] High costs of production and high industrial tariffs coupled with poor collection efficiency, have a significant, though poorly understood, negative fiscal impact. Not only do subsidies finance and perpetuate inefficiency in the power sector, they also have an opportunity cost to the GoJ in terms of foregone investments in other sectors.

Figure 1. 9: Household Access to Power



Source: Estimated from NSS 55th round.

1.23. **High shadow prices on electricity can be judged by two indicators: (a) relatively high power tariffs; and (b) relatively high return from access to power.** In the case of Jharkhand (unlike some other states with a very high degree of non-technical system-loss) the level of transmission and distribution (T&D) losses is lower than the all-India average (26 percent vs. 33 percent). The state ranks eighth in terms of high power tariff rate in a 21-state sample.[21] The micro-estimate of the income effect of power access at the community level also shows that households with such access can earn 46 percent higher income than those without such access.[22] In short, rectifying the power access constraint can result in a significant increase in income. Some elements of improvements in the power sector have been discussed in Chapter 4.

1.24. **Although about 98 percent of the state's rural communities have access to basic water supply (80 percent through hand pumps) compared to the all-India average of 80 percent, poor maintenance results in lower sustained water supply coverage**. Sanitation coverage is far lower, at about 7 percent compared with the Indian average of 21 percent; though actual usage may be lower still. Lack of local management and ownership, weak service support and a weak financing system are among the reasons for this sector's present state. The GoJ's strategy for this sector is to shift the role of the government from that of a provider to a facilitator of services through involvement of user groups for service delivery. District- and village-level water and sanitation committees have been created and the next step is to build their capacity for

[19] Estimated from the NSS data.
[20] Second lowest rate of electrification nationwide after Bihar and lower than the average in Sub-Saharan Africa.
[21] Ministry of Power data.
[22] Estimated from the NSS 55th round data.

this task. Simultaneously, the sector requires significant investments in infrastructure for safe and reliable water supply. Creating awareness about the linkages of safe water supply, improved sanitation and hygiene with health would be necessary, though public investments needed in physical infrastructure for sanitation would be relatively low. Investment in the improvement of key business processes of the Drinking Water Supply (DWS) department, sector NGOs and other key players in areas such as MIS, data collection, financial management and procurement procedures are all relatively straightforward activities that nevertheless promise significant returns. Ensuring that all sector funding streams - be they transfers from the Government of India (GoI), state funds or from other sources - are integrated into a single financial structure overseen by one body would help enforce a common policy and practices in the sector.

1.25. **Lack of irrigation facility is another key infrastructural bottleneck.** Easing the irrigation constraint -- up to the point of the permissible limit of 40 percent from the current low level of 15-20 percent -- will have beneficial effects on agriculture, and via linkage effects, on rural non-farm growth. Due to slow growth in irrigation, the agricultural sector has not been able to perform to its potential both in terms of food production as well as crop diversification. However, the expansion of area under irrigation in the state faces a number of techno-economic challenges (Chapter 3).

Institutional Performance

1.26. **The state faces significant challenges in overcoming the weaknesses of implementation capacity.** This is especially important in the context of the huge planned increase in capital expenditure (mostly on account of infrastructure building) from 2.8 percent of GSDP in 2003/04 to 7.7 percent of GSDP by 2006/07 as indicated by the budget estimates. These challenges are reflected in four sets of factors: (a) inadequate administrative capacity; (b) low beneficiary satisfaction; (c) high insecurity; and (d) problem of corruption.[23]

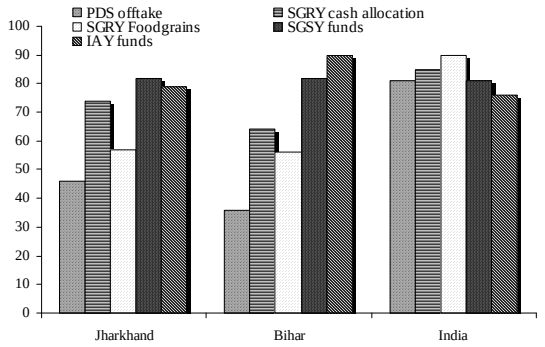
Administrative Capacity

1.27. **As part of the problems associated with the creation of a new state, Jharkhand suffers from serious administrative and management shortcomings adversely affecting implementation effectiveness.** There is no catch-all summary measure of administrative capacity. The present study uses three proxy indicators: (i) extent of shortfall in program implementation; (ii) frequent premature transfers of top-level managers; and (iii) absence or weakness of key departments often with high level of under-staffing.

[23] The terms "institutional performance" and "governance" are often used interchangeably in the literature. The study opted for the former usage for two considerations. First, governance is often equated with corruption, which is an outcome covered under institutional development. Second, a large part of institutional constraints arise from the *absence* of institutions (missing institutions) rather than from the malfunctioning institutions. This is particularly true in the context Jharkhand confronted with the challenge of building apparatus of the new state (state-building).

1.28. **The extent of shortfall in program implementation (realized vs. allocation) is still considerably higher than the all-India average.** Comparable state-level data for centrally-sponsored schemes is shown in Figure 1.10. Several Government of India (GoI) evaluations of anti-poverty programs indicate that Jharkhand is a low performing state with regard to implementation effectiveness, often falling below national averages, and significantly short of top performers like Tamil Nadu and Rajasthan.

Figure 1. 10: Utilization Rate for Major Anti-Poverty Schemes



Source: Ministry of Rural Development and Ministry of Civil Supplies, GoI

1.29. **A high rate of premature transfers undermines institutional performance because managers are neither given the minimum lead time to institute reforms, nor are they likely to be held accountable for such a short tenure.** A very high rate of transfers persists within the Secretariat: there have been five Chief Secretaries and five Director-Generals of Police since November, 2000, pointing to a lack of continuity even at the highest levels. More importantly, this transfer culture has percolated to field-level administration as well. The average tenure of a deputy commissioner since the creation of the state is merely one year and a Superintendent of Police only eleven months compared with the norm of three years established by Jharkhand's transfer policy.[24]

1.30. **Many important departments have not been established in Jharkhand, while many service delivery wings of the government have serious manpower shortages with numerous vacant technical positions in districts.** To give one example, the state does not have a department of economics and statistics (DES), vital to the monitoring of development outcomes. Both the finance and the planning departments currently have a severe shortage of technical manpower. The same applies to service delivery departments such as agricultural extension, education and health.[25] In the case of service delivery, public-private partnerships can ease the strains on administrative capacity. However, the partnership option is presently somewhat limited, given the relatively weak initial NGO presence in the state.[26]

1.31. **An important "missing institution" in Jharkhand for effective decentralized development is the absence of a popularly elected, administratively and fiscally empowered PRI institution both for scheduled and non-scheduled areas.** PRI elections have been put on hold by a court order because of legal challenges over the state's reservations policy, thus not only aggravating the pre-existing feeling of isolation of previously excluded groups but also affecting the institutional performance of development programs on the ground. As per the central *Panchayat Extension to Scheduled Areas* (PESA) law and the *2001 Jharkhand*

[24] On this aspect, see Chapter 2.
[25] Chapter 2 and Chapter 5 provide greater details of these issues.
[26] This is already happening in some districts in case of SGSY and SGRY, or in case of social mobilization for agricultural programs. While this line of action needs to be advanced further, the scale of NGO operation is presently very limited and that too restricted to a few activities such as social mobilization. small-scale agricultural technology, and micro credit. Hence, some of the deficiencies in departmental capacities cannot readily be addressed by greater public-private partnership alone, and some critical manpower shortage problems in the public sector need to be addressed for improved institutional performance.

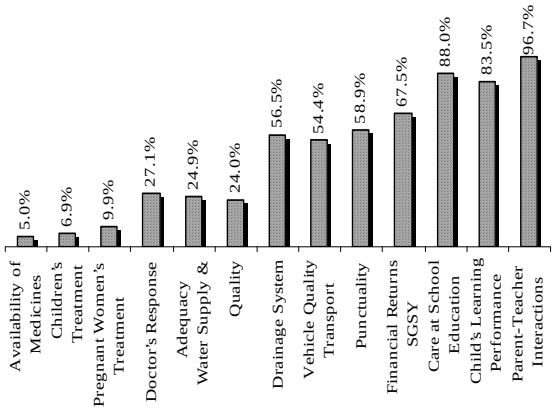
Panchayati Raj Act, in scheduled areas, the Gram Sabha is to be vested with strong powers, such as the right to approve programs and projects (including the overseeing authority over medium and micro irrigation, control over minor forest produce, and allocation of small-scale mining rights), select beneficiaries, and certify the correct use of funds by the GP in the form of a utilization certificate. This is a potentially powerful tool of accelerating development in the state, which has remained trapped in the legal imbroglio.[27]

1.32. **The challenge of administrative governance is also heightened by the presence of other factors of natural disadvantage.** Relatively low population density, geographic isolation of some areas, diverse ethnoscape and no common local language also make governance a more acute problem.

Client Satisfaction

1.33. **Poor client satisfaction plagues most of the economic and social service sectors.** This may be seen from a range of indicators culled out from a recent beneficiary survey.[28] For economic services such as rural roads, only 57 percent of the respondents rated the quality of roads constructed as "good"; and 44 percent reported that water supply breaks down frequently.[29] Only a few respondents (4 percent) have reported the availability of constructed drainage systems, and of those who have such access, 44 percent remained dissatisfied because of water clogging and water overflows. The primary health sector appears to be very precarious with a high level of doctors' absenteeism: 47 percent of rural respondents reported doctors' absence in the PHC. Client satisfaction indicators tell the same story for rural health (Figure 1.11). The reasons for poor client satisfaction include: distance, absenteeism, attitude, inadequate provisioning for maintenance, and low local-level participation.

Figure 1. 11: Beneficiary Satisfaction with Key Services



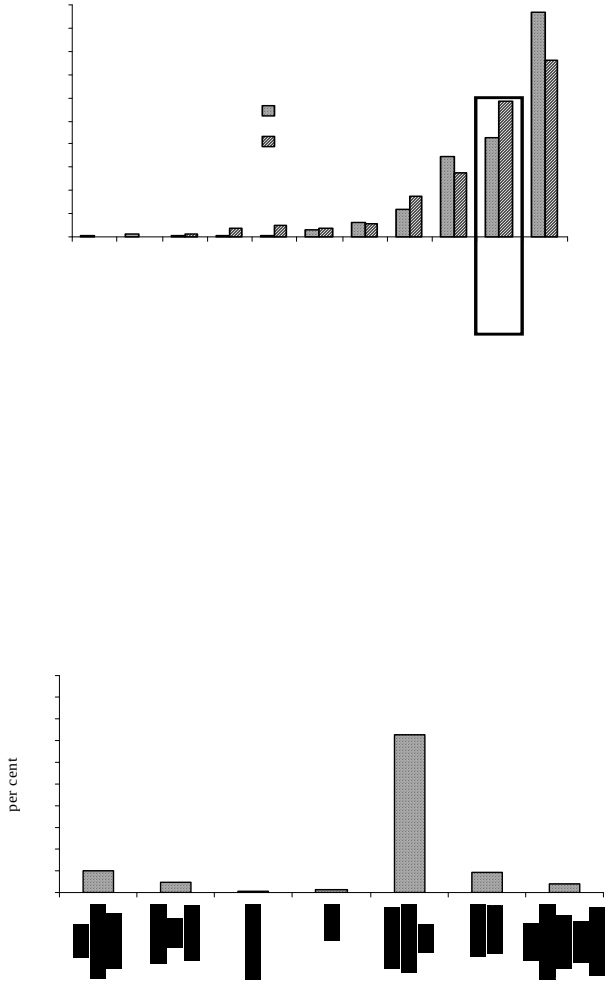
Source: Estimated from the 2005 Rural Jharkhand User Satisfaction Survey (RJUSS).

1.34. **The factors adversely affecting client satisfaction can be overcome through appropriate institutional reform.** A striking example is primary education. The sector was once characterized by one of the highest incidences of teachers' absenteeism (43 percent) in the world.[30] The situation has fast improved since then. Both the User Satisfaction Survey and the Baseline Survey carried out in two independent rural samples indicate that primary education is

[27] Discussed in greater detail in Chapter 2.
[28] The results from the Rural Jharkhand User Satisfaction Survey (RJUSS) carried out in 2005 are used for the purpose of illustration.
[29] The Citizen Report Card Pilot Survey carried out in 2004 also notes the same trend. Reliability of public water sources comes across as a major issue; feedback from the majority of respondents using public water sources (72 percent) indicates that the water sources supplied by the government are not reliable. Drying up of sources (34 percent) and poor maintenance (27 percent) are quoted as the major reasons for the sources being not reliable; a relatively higher proportion (40 percent) quoted poor maintenance as a reason for high levels of unreliability (PAF 2004).
[30] World Bank (2003); Chaudhury *et al* (2005).

now mostly satisfactory (Figure 1.11). Around 86 percent respondents send all their children to school. Distance is not a major deterrent since almost 77 percent respondents report sending children to schools located within one km, while another 15 percent report schools to be located within one km and two km. About 57 percent visited their ward's school regularly, with over 95 percent reporting parent-teacher interactions when they visit. Mid-day meals were provided at schools regularly in 75 percent cases, with only 6 percent reporting that meals were never provided. However, there is further scope for institutional improvement. For instance, the Village Education Committees (VEC) does not seem to be functioning effectively, as around 60 percent parents were not even aware of the existence of such a body.

Figure 1. 12: Left-Wing Extremist Violence in State



Source: Rural Jharkhand Baseline Survey

Insecurity

1.35. **Jharkhand faces unusually high micro-risks affecting private investment, and everyday security of livelihoods.** Two indicators -- incidence of extremist violence and frequency of bandhs -- can illustrate the nature of the problem. The state is susceptible to a high level of left-wing extremist political violence, as distinguished from a high degree of street (or village) level crime rates that characterize states such as Bihar. In fact, although in terms of incidence of left-wing extremist violence it is second to AP, the incidence is rising alarmingly (Figure 1.12).

1.36. **The impact of a very negative "*bandh*"-culture (strike) arising from the fragmented ethno-political situation in the state can hardly be over-emphasized.** Jharkhand had the highest number of bandhs among all Indian states between 2000 and 2005. The estimated annual economic loss to the state due to "Bandhs" supported by different political parties is in the range of 3 to 6 percent of GSDP (equivalent to the entire fiscal deficit of the state).[31]

Corruption

1.37. **Corruption appears to be a relatively less important constraint to development in Jharkhand compared to Bihar and Orissa. On this measure the state compares favorably with the rest of India.** The 2006 ICA survey shows that only 26 percent of respondents consider

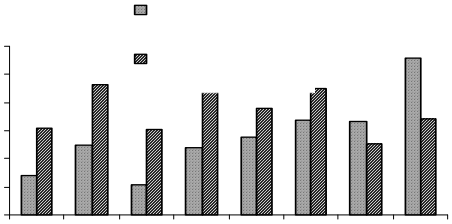
[31] Bank staff estimates.

corruption to be a major bottleneck to development in Jharkhand compared to 38 percent assessed for the rest of India, 62 percent in Orissa and 52 percent in Bihar.[32]

1.38. **However, for some sectors, like social protection, the question of program leakage (however defined) has already become a potential policy concern.** Average coverage continues to be low despite significant investments in these schemes (about 4 percent in 2003/04). Many schemes have much lower coverage compared to the rural poor and/or Below Poverty Line (BPL) population (Figure 1.13).

1.39. **Even for programs where the coverage rate is high there is often larger exclusion of the poor compared to the rest of India.** The Public Distribution System (PDS) illustrates the point: a much higher proportion of BPL families are not able to get ration cards compared to the rest of India. Non-availability of the food items is another reason for the relative lack of participation in the program (Figure 1.14). About 75 percent of Fair Price Shop (FPS) owners in Jharkhand admitted to having paid bribes for lifting commodities from godowns, by far the highest of any state.[33]

Figure 1. 14: Reason for Low Participation of the Poor



1.40. **In some sectors the extent of leakage, although presently low, can increase in the future as the scale of operation expands towards greater population coverage.** For instance, at first glance, leakage in the power sector with transformation, transmission, and distribution (TTD) losses at 26 percent compared to 33 percent for all India looks favorable (Figure 1.15), and much lower than that observed for most other states. However, as discussed, the per capita power consumption is very low (nearly half the all-India coverage) and 90 percent of the rural population remains outside the coverage. This indicates that the above statistic reflects the currently limited coverage of power restricted to urban areas only. Once rural power connectivity begins to expand, the problem of leakage could surface in a major way if an appropriate system of power sector governance is not put in place (as in the case of other states cited above).

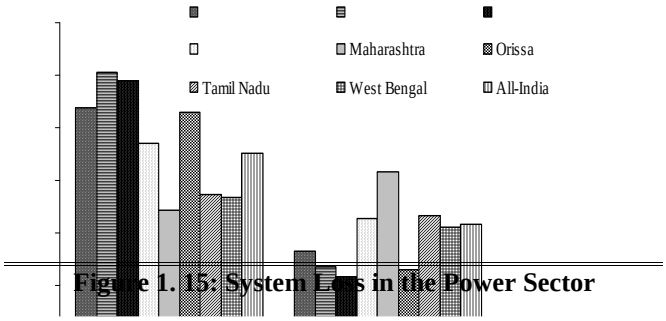
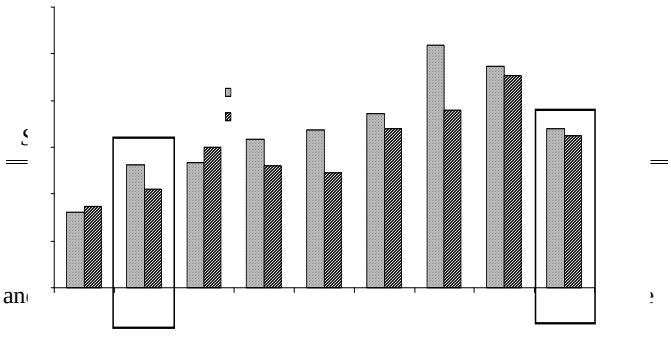


Figure 1. 15: System Losses in the Power Sector



1.41. **There is widespread perception in**

[32] See Chapter 4 for further details.

[33] West Bengal was second highest with 60 percent. On these and Chapter 5.

civil society that corruption in Jharkhand, while considerably lower than Bihar, is a growing menace. The 2005 TI-CMS perception survey ranks the state as being 14th among 20 states in terms of "efficiency and transparency of governance" (Table 1.8). Although the relative ranking is better than Bihar, Madhya Pradesh, Karnataka, Rajasthan, and Assam, its position is worse than Orissa and another newly created state, Chhattisgarh.

Other Constraints to Growth

Human capital

1.42. **Access to human capital is an important source of long-term growth.** Two features are noteworthy. *First*, distribution of education among different segments of population for the state as a whole does not appear to be very different from the all-India pattern (Figure 1.16).

Second, plausible estimates indicate that returns to education are quite modest. At least for rural areas, the incremental income enhancing effects of attaining different grades of education up to the secondary level are quite modest. NSS data indicates that the income of those who have completed only primary education is merely 10 percent higher as compared to those who are illiterate, while the corresponding effect is statistically insignificant as per the rural Jharkhand baseline survey.[34] The big jump comes only with the attainment of post-secondary (10+) education. It is true that for the state as a whole the average earning for salaried workers (with regular wage employment) varies considerably with the level of education. In fact, for any given level of education an average Jharkhandi salaried worker earns relatively more than in the case of other states (Table 1.9). This higher skill premium may not be reflective of any serious shortage of educated workers, but rather an expression of intense competition for government jobs (i.e. many more aspirants than vacancies), especially under conditions of quota and reservation policy for the specific social groups.

Table 1. 8: Efficiency and Transparency of Governance

State	Composite Index	Rank
Kerala	240	1
Himachal Pradesh	301	2
Gujarat	417	3
Andhra Pradesh	421	4
Maharashtra	433	5
Chhattisgarh	445	6
Punjab	459	7
West Bengal	461	8
Orissa	475	9
Uttar Pradesh	491	10
Delhi	496	11
Tamil Nadu	509	12
Haryana	516	13
Jharkhand	**520**	**14**
Assam	542	15
Rajasthan	543	16
Karnataka	578	17
Madhya Pradesh	584	18
Jammu & Kashmir	655	19

Table 1. 9: Average Nominal Wage Earnings for Salaries Workers (15-59) by Level of Education

State	Primary	Secondary	Tertiary	Average
Jharkhand	**125.3**	**162.0**	**253.3**	**184.3**
Bihar	69.4	152.4	253.6	184.5
Orissa	109.8	140.5	189.1	151.4
West Bengal	91.2	137.9	251.1	169.2
Andhra Pradesh	70.5	112.4	200.2	136.7
Tamil Nadu	65.1	117.5	225.6	131.7
Karnataka	81.3	121.1	216.3	145.7
Maharashtra	105.3	141.1	240.5	158.6

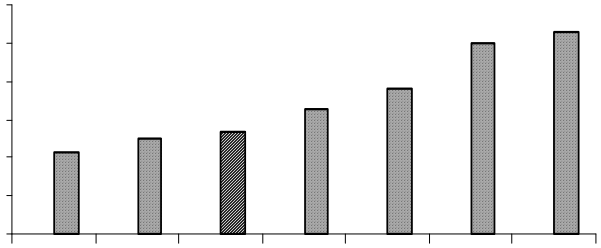
Source: Estimated from NSS 55th round, Schedule 10.

[34] See Chapter 3.

Financial intermediation

1.43. **Lack of demand for credit rather than inadequate access to financial infrastructure is probably the key factor underlying the low financial intermediation in the state**. As per the Reserve Bank of India data (2001), the state has a higher level of per capita commercial bank deposits (Rs. 4,866) compared to Bihar (Rs.2,354), Orissa (Rs.3,105), Chhattisgarh (Rs.2,823), though lower than West Bengal (Rs.5,874), Tamil Nadu (Rs.7,658) and Maharashtra (Rs.14,802). Poor financial intermediation can be seen from the low coverage of banking facilities, high losses among rural banks (indicating poor lending practices), and particularly low access to credit in rural areas. Not only does the state have an insufficient number of bank branches per one million of population (Figure 1.17), the average per capita commercial bank loan is lower than that for other advanced states[35] and the credit-deposit ratio has been declining.[36] However, these indicators may be poor because of the low demand for loans in the state in the absence of irrigation and other infrastructural investments.

Figure 1. 17: Number of Bank Branches per 10 Lakh Population

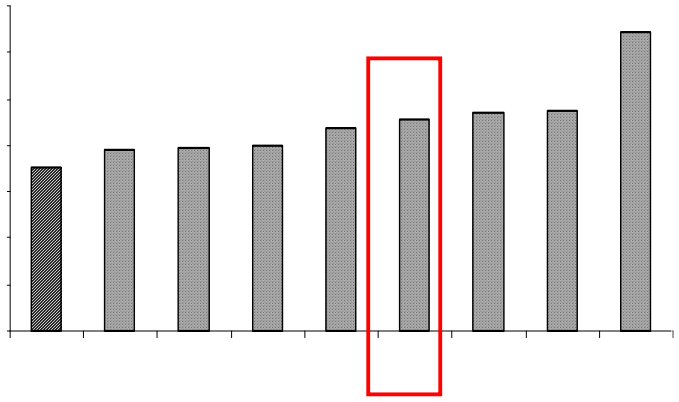


[35] According to RBI data for 2001,average commercial bank loan per person is only Rs. 122 (in 2000/01 prices) compared to Rs. 50 in Bihar, Rs.124 in Chhattisgarh, Rs.140 in Orissa, and much lower than in West Bengal (270), 546 in Punjab, and 654 in Tamil Nadu.

[36] Jharkhand Banking Inquiry Committee Report, 2003.

1.44. This is not to say that the credit market is not a constraint; the latter may partly explain why Jharkhand has the smallest share of households with income from non-agricultural self-employment (Figure 1.18). However, for industrial activities in urban areas the loan/ capital (leverage) ratio is 56 percent compared with 41 percent for all India. Similarly, the cost of the funds, interest/ loan ratio, is about 11 percent compared with an estimated 14 percent for all India.[37] In short, lack of demand for loans may be the more deep-seated cause of slow development of non-agricultural enterprises rather than mere access to credit in the backdrop of underdeveloped infrastructure, un-irrigated agriculture, and adverse institutional performance.

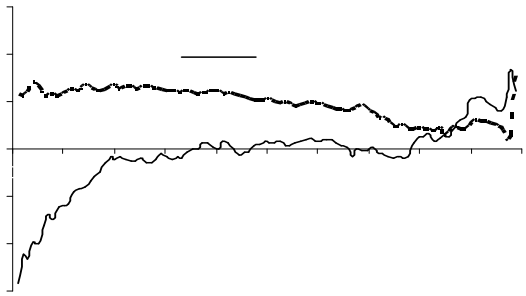
Figure 1. 18: Percent Households with Income from Non-Agricultural Enterprises



D. How to Make Growth Pro-Poor: Need for Rural Focus

1.45. While there is a rationale for focusing on unlocking Jharkhand's rural development potential, it does not imply retreating from the urban sector.

- ***First,* the growth incidence curves estimated from the NSS data (Figure 1.19) suggest that rural growth has been pro-poor, while urban growth has been highly dis-equalizing**. Hence, the need for a rural focus becomes a compulsion in the context of a state like Jharkhand.



- ***Second,* high inter-region inequality can fuel social conflict and political instability.** This can be judged by the wide variation in the poverty rate by district. Thus, poverty head-count varies from 85 percent in Pakur, 80 percent in Deoghar, 77 percent in Dumka, 74 percent in Palamu to 54-55 percent in Lohardaga and East Singhbhum, 43 percent in Ranchi down to 20-21 percent in Dhanbad and Hazaribagh.[38] Seen from this angle the issue of rural neglect carries with it a certain political urgency, especially in the context of a fragile polity. The creation of Jharkhand as a separate state was seen by many as a political expression of the self-development aspiration of the tribal and other disadvantaged populace who were historically neglected. This suggests the need to focus on making growth pro-

[37] www.indiastat.com
[38] Preliminary results based on NSS 55th round (Schedule 10).

poor through specific interventions for the inclusion of vulnerable groups. Such a growth process is likely to be more sustainable over the medium to long term.

E. Structure of the Report

1.46. **To sum up, weak institutional capacity, poor infrastructural development and lack of rural opportunities are the predominant features that characterize Jharkhand's economy and explain its modest development outcomes.** For any development strategy to be successful in the state, these sets of issues need to be tackled up front. Accordingly, the report is organized as follows. Chapter 1 presents macro trends and performance of the Jharkhand economy (Sections 1.1 and 1.2) and discusses the key development challenges (Section 1.3). This diagnostic exercise leads to the identification of weak institutional capacity and lack of infrastructural and rural access as the three factors that are "binding constraints" to growth and explain the modest development outcomes in the state. Accordingly, Chapter 2 discusses the priority issues within the agenda of building institutional capacity, while Chapter 3 focuses on issues that merit consideration within the agenda of improving rural opportunities. Considered together they provide the micro-foundations for discussing alternative development paths pursued in Chapter 4. Social inclusiveness is an end in itself even if the growth rate is low, especially in Jharkhand with its sharp social and regional divide. The state can achieve higher social progress such as basic education and health MDGs even at relatively low levels of income, and can improve upon the coverage, targeting and efficiency of the social protection schemes for the most needy and vulnerable groups (Sections 5.1 through 5.3).

Chapter 2: Building Institutions and Improving Performance

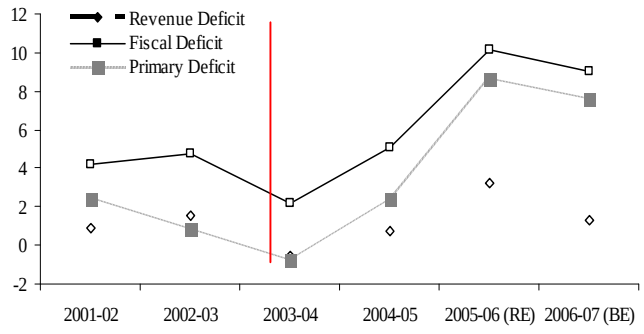
2.1 The centrality of improving institutional capacity of the state to achieve inclusive and sustainable growth was highlighted in chapter 1. While some aspects of institution-building (creation of norms and values, efficiency-culture, competitive democratic polity) demand a longer time horizon,[39] others (creation of new an organizational set-up, rules of business, effective system of monitoring and statistical strengthening, public-private partnership, local-level participation and improved service delivery) can be addressed in the medium term. In fact, certain institutional changes such as those relating to law and order, accountability of public administration, and greater involvement of local-level organizations are imperative. To address the challenges of institution- building faced by the state, apart from sector-specific governance issues, four areas have been identified.

2.2 *First*, strengthening state finances and linking allocation of resources to improvements in the delivery of services is essential for improving human development indicators in the state. *Second*, an efficient and transparent administrative system at all tiers of government is a prerequisite for improving service delivery. *Third*, the state needs to manage infrastructural investments effectively to maximize the growth impact and make it more inclusive. These are discussed in chapters 3 and 4. And fourth the management and governance of minerals and environment assumes heightened importance in a state like Jharkhand, which has a huge mineral endowment and large forest cover. Issues, constraints and diagnostics of these challenges are discussed briefly below.

A. Fiscal and Financial Governance

State's Fiscal Performance

Figure 2. 1: Deficits as Percentage of GSDP



Source: GoJ, Budget Documents.

2.3 **There are already some disturbing trends in the state's fiscal balances. This is in addition to the pre-existing structural weaknesses in the financial management system that the state inherited from Bihar.** Since the state came into existence in November 2000, financial figures are available only from 2001/02. The fiscal deficits have been rising at an alarming rate (Figure 2.1). The state is unlikely to meet most of the performance criteria posited by the Twelfth Finance Commission (TFC) for debt relief and may lose out on substantial fiscal receipt on that count. This does not augur well as the state faces major challenges in its development strategy, which requires increased public sector allocation to infrastructure and human resource development. Thus the need is urgent for

[39] North (1990).

improving resource mobilization, increasing cost effectiveness of expenditure, and rationalizing the budgetary processes.

2.4 Except for one year, 2003/04 (when the central elections took place and the model code of conduct was in place), fiscal deficits have been rising rapidly in recent years reaching an alarming level of 10.1 percent of GSDP in 2005/06 (RE). The biggest increases are evident on the expenditure side -- in particular, transfers and capital expenditure -- which may well be in line with a desired development strategy but which have not been matched by increases on the revenue side. This is typical of a new state, as observed with other new states, where finances are better in the first few years and then deteriorate in the following years as the division of assets and liabilities occurs and as new hirings start to take place to fill in gaps in capacity.

2.5 Actual figures show a decline in the fiscal deficit by two percentage points (from 4.2 percent to 2.2 percent of GSDP) between 2001/02 and 2003/04 (Table 2.1). There was a revenue surplus and a primary surplus of 0.6 percent and 0.8 percent of GSDP respectively in 2003/04. However, the stock of debt continued to increase from 23 percent to 25.5 percent of GSDP during the same period. The low levels of deficit during this period were largely due to low levels of spending, a reflection of the lack of capacity in the government. This picture changes very rapidly from 2004/05, with the fiscal deficit more than doubling from 2.2 percent in 2003/04 to 5.1 percent in 2004/05. All fiscal indicators show a substantial deterioration with the fiscal deficit budgeted at 9.0 percent, revenue deficit at 1.3 percent and primary deficit at 7.6 percent of GSDP. Debt levels are at 30.8 percent of GSDP in 2005/06.

Table 2. 1: Fiscal Summary of Jharkhand
(Percent of GSDP)

State Government	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
	Actuals	Actuals	Actuals	Actuals	RE	BE
Revenue Receipts	13.7	13.6	14.2	15.2	16.9	18.8
A. Tax Revenue	9.7	9.5	10.0	10.9	10.6	12.9
States' Own Tax Revenue	4.8	4.8	5.0	5.5	5.9	5.8
Share of Central Taxes	4.9	4.6	5.0	5.4	4.6	7.1
B. Non-Tax Revenue	4.0	4.1	4.2	4.4	6.4	6.1
State's Own Non-Tax Revenue	2.6	2.7	2.8	2.4	2.9	2.8
Grants from Center	1.4	1.4	1.4	2.0	3.5	3.3
Revenue Expenditure	14.7	15.1	13.6	16.0	20.1	20.2
Salary	6.3	6.5	6.0	6.0	6.7	6.1
Interest	1.7	3.9	3.0	2.6	1.5	1.4
Pension	1.6	1.4	1.4	1.4	1.6	1.5
Subsidy	0.1	0.3	0.2	1.1	1.0	0.2
Transfers	4.8	2.9	2.9	4.8	9.2	10.7
Operations and Maintenance	0.2	0.2	0.1	0.2	0.3	0.2
Capital Expenditure (net)	3.2	3.2	2.8	4.3	6.9	7.7
Revenue Deficit	-0.9	-1.6	0.6	-0.8	-3.2	-1.3
Fiscal Deficit	-4.2	-4.7	-2.2	-5.1	-10.1	-9.0
Primary Deficit	-2.4	-0.8	0.8	-2.5	-8.7	-7.6
Debt	23.0	23.6	25.5	29.6	30.8	36.3
Total Expenditure	17.9	18.3	16.4	20.3	27.1	27.9

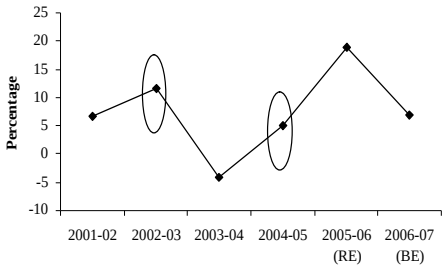
Source: Finance Accounts and Budget Documents.

Note: Rs. 2,234 billion (0.3 percent of total expenditure) of grants-in-aid to local bodies was wrongly classified as capital expenditure in 2004-05 in the Finance Accounts. This amount has been reclassified as revenue expenditure in this report under transfers.

Revenue Receipts

2.6 **Approximately 55 percent of the total revenue receipts are on account of the state's own tax and non-tax revenue collection efforts.** This figure remained more or less constant from 2001/02 to 2003/04, but declined to 52 percent in 2004/05 and 2005/06 and is estimated to decline further to 46 percent in 2006/07. Total non-tax revenue is likely to increase by 61 percent in 2005/06 according to the revised estimates, with most of the increase coming from increased tax through mining and doubling of grants from the center. Being a new state, most of the changes introduced in commercial taxes focus on providing impetus and incentives to different sectors through lower tax rates and providing tax rebates to industry and exporters. The abolition of additional tax and taxes on several utility items, complete tax rebate on 100 percent exports, reduction of entertainment tax from 110 percent to 60 percent and increase in the limit of gross turnover of sales from one lakh to 7 lakh are amongst the changes introduced. A tax rate of 4 percent on mobile handsets and 8 percent on spare parts and accessories of mobile handsets has been imposed with effect from September 2005. The net impact of these changes will be known in a year or two as most of these changes are fairly recent.

Figure 2. 2: **Revenue Deficit/Revenue Receipts**



Source: Finance Accounts and Budget Documents.

2.7 Based on a single monitorable indicator, namely, a 5 percent decline in revenue deficit to revenue receipts ratio year on year for the five-year period from 2000/01 to 2004/05, the state was entitled to an award of Rs. 105.47 crore. Even though the state did not achieve the target in 2002/03 and 2004/05, it got the full award from the GoI (Figure 2.2).

Revenue Expenditures

2.8 **The growth rate of expenditures has outstripped that of receipts, leading to a worsening of the fiscal deficit.** After reaching a low of 13.6 percent in 2003/04, revenue expenditure as a percentage of GSDP has increased substantially to 20 percent of GSDP in 2005/06. Salaries, pension and interest payments accounted for 76 percent of revenue expenditure in 2003/04, leaving little head-room for other expenditures. This is expected to fall to 44.5 percent in 2006/07. While the proportion of salaries and pensions in GSDP has remained relatively stable,[40] interest payments, which were high during the period 2002/03 to 2004/05 seem to be stabilizing back to the 2001/02 levels. Subsidies, while low, have fluctuated over time. Despite the TFC's recommendation to states to start acknowledging their loans to state electricity boards as subsidies in the interest of transparency, Jharkhand has not done so as yet. The proportion of transfers has nearly doubled from 4.8 percent of GSDP in 2001/02 to an estimated 9.2 percent of GSDP in 2005/06 (Figure 2.3). This figure is expected to go up further to 10.7 percent of GSDP in 2006/07. The operations and maintenance figure has fluctuated between 0.1 percent of GSDP in 2003/04 and 0.3 percent of GSDP in 2005/06. This is a woefully inadequate figure given the infrastructure requirements of the state, especially in the light of the new push towards attracting capital investment through the various memoranda of understanding (MoUs) that have been signed.

Figure 2. 3: Main Components of Revenue Expenditure

Source: Finance Accounts and Budget Documents.

2.9 Salaries have grown rapidly in nominal terms. The large increase in salary expenditure can be attributed to a substantial rise in recruitment since 2002/03. The state government has hired over 6,000 teachers, 2,000 doctors and health workers and 5,000 policemen. Pending promotions, the merging of 50 percent dearness allowance (DA), an increase in house rent allowance (HRA) and accumulated salary arrears have contributed to the increased salary bill. Even after these appointments, there are several vacancies in the education, health and police departments, and if the government continues to fill these, the salary bill can be expected to increase further in the coming years.

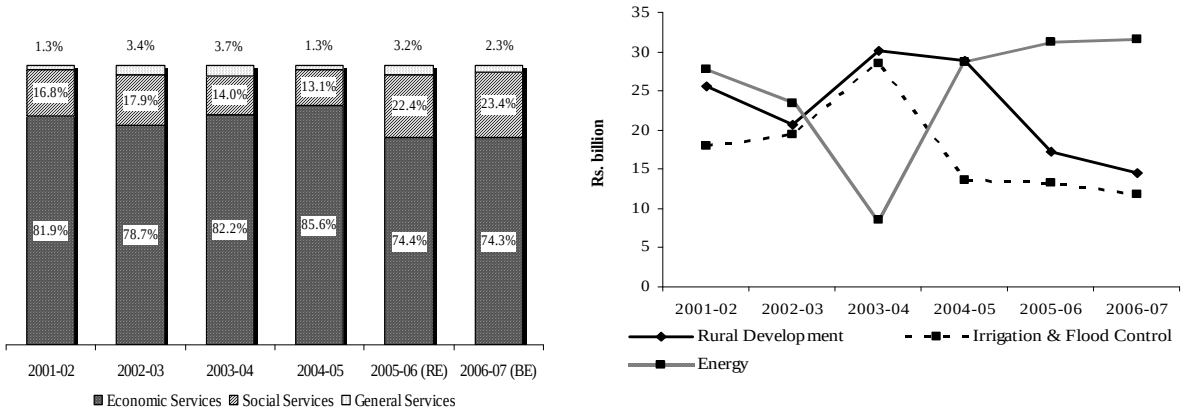
2.10 In nominal terms, transfers have gone up nearly four times since bifurcation, with large increases being registered in 2005/06 and 2006/07 after the state elections. Transfers increased from 4.8 percent of GSDP in 2001/02 to 9.2 percent in 2005/06 and are projected to increase to an alarming 10.7 percent of GSDP in 2006/07. Expenditures under this category need to be scrutinized and understood in greater depth to enable the government to take corrective measures where required as such increases in spending are not sustainable. Some of these expenditures can be attributed to proposed new schemes benefiting mainly the SC/ ST population of Jharkhand, such as proposals to issue caste certificates, health cards to all tribal members along with other health benefits, provision of jobs to all ST graduates etc. However, these remain largely unexplained.

[40] The Government of Bihar claims that the GoJ is not contributing enough towards the pension liability after the split. This may lead to litigation whereby the GoJ may have to make a large one-time settlement in the future.

Capital Expenditure

2.11 **Capital expenditure is expected to nearly double in two years as a result of planned investments in infrastructure**. Jharkhand's capital expenditure has increased from 2.8 percent of GSDP in 2003/04 to 4.3 percent in 2004/05 (Figure 2.4). It is further expected to increase to an estimated 7.7 percent of GSDP by 2006/07 according to budget estimates. Within capital expenditure, the share of social services has increased by 5 percent since 2001/02 with the increase going to the education, health and urban development sectors. The decline in economic services is mainly on account of decline in allocations to the rural development sector (which had huge unspent balances in 2003/04, due to lack of good projects or proposals) and irrigation.

Figure 2. 4: Composition of Capital Expenditure



Source: Finance Accounts and Budget Documents.

Note: Rs. 2234 billion (0.3 percent of total expenditure) was wrongly classified as capital expenditure in 2004/05 in the Finance Accounts. This amount has been reclassified as revenue expenditure in this report and accordingly reduced from social services in capital outlay.

Debt Management

2.12 The public debt of Jharkhand consists of: (i) internal debt, that is, domestic market borrowings from banks and financial institutions as well as the special securities issued to the National Small Savings Fund (NSSF) of the central government; (ii) loans from the central government; and (iii) National Small Savings collection in the state given by GoI as loans and provident funds. The composition of public debt of the state is given in Table 2.2. At the time of the bifurcation of Bihar into Bihar and Jharkhand, the debt stock of the undivided state was divided on the basis of population. Certain items such as insurance and pension funds remain undivided and contested by the two states. As a result Jharkhand, which had a smaller population, inherited smaller debt stock relative to its GSDP (23 percent) as compared to post-bifurcation Bihar (61.9 percent).

Table 2. 2: Public Debt of Jharkhand: Stock and Composition (in Rs. billion and as a percent of GSDP)

	2001/02	2002/03	2003/04	2004/05	2005/06 RE	2006/07 BE
Debt Stock	75.2 (23.0)	86.0 (23.6)	101.4 (25.5)	129.2 (29.6)	146.4 (30.2)	188.9 (35.1)
Internal Debt	35.3 (10.8)	48.8 (13.4)	67.3 (16.9)	96.5 (22.1)	115.2 (23.8)	160.3 (29.8)
Loans from the Center	40.1 (12.3)	35.6 (9.8)	31.5 (7.9)	29.9 (6.8)	28.4 (5.9)	25.8 (4.8)
Small Savings, Provident Funds, etc.	-0.2* (-0.1)	1.6 (0.4)	2.6 (0.7)	2.8 (0.6)	2.8 (0.6)	2.8 (0.5)

Source: Finance Accounts and Budget Documents.
Note: RE – Revised Estimates; BE – Budget Estimates; Numbers in parenthesis are percent of GSDP.
*: Negative balance is due to non-allocation of balance for insurance and pension funds component between Bihar and Jharkhand on bifurcation.

2.13 Overall, the debt stock is expected to reach 35 percent of GSDP by 2006/07. Internal debt has grown rapidly since bifurcation and is expected to reach nearly 30 percent of GSDP in 2006/07. Within internal debt, market borrowings and the special securities issued to the NSSF are the major components, while loans from financial institutions are minimal.

2.14 Loans from the central government, which were market loans raised by the GoI at the prevailing interest rates and on-lent to the states at higher rates, have declined since bifurcation. Based on the TFC's recommendation, already accepted by the GoI, the central government will no longer provide loans to the states and thus with repayments, this component will decline further.

2.15 The third group of debt, namely, small savings, provident funds etc., comprises mainly of the provident fund of government servants and balances under the state government employee's group insurance scheme and is marginal. The apportionment of the balance of the latter as on November 14, 2000, that is, immediately prior to bifurcation, between Jharkhand and Bihar, remains to be done.

2.16 The division of assets and liabilities between the two states, including guarantees, is an outstanding issue, disputed at various levels in different sectors. At the time of bifurcation, the division was to be on the basis of a population proportion of 75:25. However, this ratio was often contested in the Supreme Court and alternate arrangements made. Hence, some of the contested liabilities such as the State Transport Corporation (STC) and power losses are not on the books of the state government as yet. Once settled, this settlement may impact the financial

position of the state either way. Actual fiscal outcomes year on year will be subject to one- time shocks of settlement till such time that this division is completed.

2.17 The central government formulated the debt swap scheme for state governments in 2002/03, wherein the participating states were allowed to raise additional market borrowing to repay high-cost block loans to the central government. The GoJ took advantage of this in all three years: 2002/03, 2003/04 and 2004/05.[41]

2.18 The Eleventh Finance Commission had defined a state to be "debt stressed" if the ratio of its interest payments to revenue receipts exceeds 20 percent while the TFC has recommended reducing this ratio further to 15 percent. Interest payments were made on an ad hoc basis in the first few years after bifurcation and only stabilized later. Interest payments as a percentage of revenue receipts were at a high of 28.7 percent in 2002/03 and have declined steadily since then; they are expected to be as low as 7.7 percent in 2006/07.

Twelfth Finance Commission Award: Implications for the State

2.19 According to the TFC award, Jharkhand's share in the pool of taxes is 3.36 percent (excluding service tax) and 3.4 percent for service tax. This is slightly higher than what had been decided under the Eleventh Finance Commission award wherein Jharkhand was given 3 percent of the 14.6 percent for undivided Bihar. The total grants-in-aid to be received by the state over the next five years are shown in Table 2.3.

Table 2. 3: Grants-in-Aid on the Recommendation of the Twelfth Finance Commission
(Rs. billion)

	2005/06	2006/07	2007/08	2008/09	2009/10	Total
Total	1.71	4.15	4.34	4.54	4.77	19.51
Non-Plan Grants	1.65	3.24	3.43	3.63	3.86	15.81
Plan Grants	0.06	0.91	0.91	0.91	0.91	3.70
Grants to Local Bodies	1.16	1.16	1.16	1.16	1.16	5.80
Panchayats	0.96	0.96	0.96	0.96	0.96	4.82
Municipalities	0.20	0.20	0.20	0.20	0.20	0.98

Source: Twelfth Finance Commission Report.

2.20 Apart from taxes and grants-in-aid, a major incentive to all states is linked to the passing of the Fiscal Responsibility and Budget Management Act (FRBMA). On enactment of the FRBMA, Jharkhand will get debt relief of Rs.659.43 crore on account of rescheduling of loans (contracted before March 2004 and outstanding as of March 2005) at a lower rate of interest of 7.5 percent per annum. Of this Rs. 205 crore is on account of lower principal repayment and Rs. 454.5 crore on account of lower interest payments.

[41] In 2002/03, two state development loans (SDLs), totaling Rs.2.05 billion with 6.75 percent interest and repayable in 2013, were raised and the proceeds were allocated towards repayment of block loans bearing higher interest. Also further repayment of Rs.1.16 billion was made under the debt swap scheme in 2002/03. In 2003/04, SDLs totaling Rs.4.23 billion at 5.9 percent interest and repayable in 2017 were raised for repaying block loans and also a further Rs.2.56 billion of block loans were repaid. In 2004/05 SDLs totaling Rs.2.28 billion bearing average interest at 6.03 percent and repayable in 2014 were raised to repay block loans and also further repayment of block loans of Rs.2.47 billion was made.

2.21 While the FRBMA has been drafted, it has not yet been passed. Although, the state government intended to pass the act during the budget session before the close of the financial year 2005/06, political developments led to a state of "sine die" which means that the state assembly was neither in session nor adjourned immediately prior to the end of the financial year. Therefore, the FRBMA could neither be passed as an Act in the assembly nor through an ordinance since the house was not adjourned. Since the FRBMA will now technically be passed in 2006/07, this raises the question of whether the state will be entitled to the interest relief of Rs. 103 crore for 2005/06. The state may either get the award for two years together or it may lose the first year's award. Further, the state is unlikely to benefit from the TFC's debt waiver linked to the reduction of revenue deficit (Box 2.1).

Box 2. 1: Will Jharkhand Miss the Boat on TFC's Debt Waiver?

According to the GoI's scheme, repayments that are due to central loans from 2005/06 to 2009/10 will be eligible for write-off, linked to an absolute amount by which the revenue deficit is reduced year on year from the base level. The base level has been taken as the average of revenue deficit for the state from 2001/02 to 2003/04. This poses a major problem for Jharkhand whose base level is very low as the state had a revenue surplus in 2003/04. According to the debt relief formula, Jharkhand is entitled to a debt write-off of Rs. 2.69 for every rupee of reduction of revenue deficit, provided the revenue deficit is below the baseline (-2.45 billion) and fiscal deficit is below the level in 2004/05 (5.1 percent of GSDP). Actual figures for 2004/05 show a deterioration of revenue deficit (-3.38 billion) from the base level (-2.45 billion). Therefore the state does not qualify for performance-based debt waiver for 2004/05. Revised estimates for 2005/06 show a worsening of the revenue deficit to -15.53 billion. However, the final figure is likely to be much better as this figure does not factor in the FRBMA award and the increased share of the state in central taxes. In order to qualify for the TFC debt relief award in future years, Jharkhand needs to follow the fiscal path given in Table 2.4.

2.22 A reduction in revenue deficit from -1.3 percent to zero in two years and a 6 per cent correction in fiscal deficit may be very difficult for the state. Even with such a steep correction, it is not clear whether or not the state will meet the "consistent performance" criteria laid out by the TFC.

Table 2. 4: Fiscal Correction Path Required to Meet the Targets set by Twelfth Finance Commission

		2004/05	2005/06	2006/07	2007/08	2008/09
	Baseline (as per TFC)	Actuals	RE	BE	Projected	Target
Revenue Deficit (Rs. billion)	-2.45	-3.38	-15.53	-7.13	-2.4	0
Revenue Deficit (% GSDP)		-0.8	-3.2	-1.3	-0.4	0
Fiscal Deficit (Rs. billion)		-22.18	-49.18	-48.65	-30.47	-19.9
Fiscal Deficit (% GSDP)	-5.1	-5.1	-10.1	-9.0	-5.1	-3.0
GSDP		436.87	484.93	538.27	597.48	663.2

Source: Finance Accounts and Budget Documents and staff estimates.

Notes:

(i) GSDP estimates for 2004/05 from CSO, others calculated using 11 percent nominal growth rate suggested by the Twelfth Finance Commission.

(ii) In order to fulfill the condition that cumulative reduction in revenue deficit must exceed the cumulative interest relief, there must be a revenue surplus of Rs. 0.64 billion in 2007/08 and Rs. 1.42 billion in 2008/09 (assuming that the state receives interest relief for 2005/06).

2.23 The state seems to be well on its way to meeting the other two criteria suggested by the TFC, namely reducing the ratio of interest payments to

revenue receipts below 15 per cent and containing the salary bill as a proportion of revenue expenditure less interest and pensions to 35 percent by 2008/09.

Measures for Expenditure Control

2.24 Huge expenditures without commensurate increase in revenues are responsible for rising fiscal deficits in the state. While large increases in expenditures on infrastructure and social development of the underprivileged groups in the state are warranted, it is important to ensure that these are within the absorptive capacity of the state. A good monitoring mechanism needs to be put in place to ensure that there are no leakages in the system. The consolidation of schemes will help cut down administrative costs. Some common expenditure control measures for consideration include: (i) restrictions on the creation of new posts; (ii) rationalizing of existing posts; and (iii) ceiling on contingent liabilities.

2.25 Improving public procurement should also play an important role in enhancing the effectiveness of public spending while at the same time reducing unproductive expenditure. The existing mechanisms by which the state purchases goods, works, and services from the private sector are confusing as well as inefficient. The relatively poor functioning of the procurement system is especially worrying given the vast increase in procurement that is planned during the coming years with the expected doubling of investment spending. Experience from other countries, as well as other states in India, suggest that it is possible to improve the quality of spending while reducing the cost of procurement by 20-40 percent by simplifying rules, adopting standard procedures that incorporate the use of electronic procurement, and increasing supervision and monitoring of procurement practices and outcomes. These actions, combined with a training program to boost the skills and expertise of officials involved in executing and overseeing procurement, could make a major contribution to improving the quality of spending and achieving the fiscal responsibility targets.

Measures for Additional Resource Mobilization

2.26 Together with expenditure control some additional resource mobilization measures can be adopted to put the state finances back on track. While the tax cuts that the state has introduced for additional investment and income generation may eventually lead to higher tax collection, it cannot be taken for granted. It is advisable to review these tax cuts carefully and retain only those that prove their intended efficacy. Other resource mobilization measures are noted below.

2.27 *First*, there is considerable scope for enhancing resource mobilization through better tax administration and compliance. The GoJ has taken the first step in this direction through its decision to implement the value added tax (VAT) in the state from April 2006. The Jharkhand VAT Bill, 2005 has been approved by the governor and the assembly. Sixty-two items have been listed under the tax-exempt category under the VAT system, of which nine were selected on the basis of local or social importance. The state has taken a number of steps to prepare for implementation of VAT, including training of officers and the launch of public awareness campaigns covering all major trade unions, chambers of commerce and industry organizations which will focus on the rules, laws etc. of VAT. While this is expected to lead to an increase in tax revenues, a clearer picture of the impact of VAT will emerge only by end-2006 depending on how well it is administered.

2.28 *Second*, the GoJ is likely to benefit from enhanced mineral revenues if the central government accepts the TFC's recommendation that mineral royalties to states should be on an ad valorem basis. The initial benefits of this change will depend on the rate at which the royalty

is fixed, but over the medium to long run, revenues will go up as prices of metals and minerals, especially coal and iron ore, are expected to increase.

2.29 *Third*, the state should make every effort to get the full benefit of the TFC award (discussed above), including passing the FRBMA.

2.30 *Fourth*, the state should endeavor to get maximum benefit from central schemes targeted at underprivileged communities, of which Jharkhand has a large share.

2.31 *Fifth*, given the high level of poverty, the state could seek support of international donor agencies for grant funds for capacity building and put in place an appropriate incentive structure to involve the private sector (including NGOs) in funding the infrastructure and social development programs in the state.

Capacity Building for Budget Planning and Execution

2.32 In order to better manage its finances, and enhance accountability and transparency in spending, the GoJ needs to focus on the budgeting process. At present, the budget does not reflect a realistic picture of the financial position of the state. A lower fiscal deficit and a revenue and primary surplus in 2003/04 is not reflective of better fiscal management but huge savings of Rs. 3495 crore, of which nearly 50 per cent occurred in two departments -- education and rural development -- both of which are priority sectors for the government. While the overall level of debt is known, other disclosures such as large outstanding pension liabilities and contingent liabilities (committed contracts, guarantees, bad debts etc.) are not known.

2.33 The government needs to prepare a medium-term expenditure plan and place its annual budget preparation within the context of this plan. This plan should be prepared in consultation with the line departments and be consistent with resource mobilization efforts to ensure fiscal discipline in the medium to long term. Other immediate steps include drawing up of a "Medium-Term Fiscal Reforms Program" incorporating incentives outlined in the TFC award.

2.34 The state has taken some initial steps for enhancing financial discipline such as: (i) revision of budget construction and allocation procedures to facilitate intensive scrutiny and speed up budget execution; (ii) speedy financial approvals; and (iii) a cut in non-plan expenditure. Going forward, the state could consider the creation of a finance and accounts cadre that would help meet the requirements in specialized departments such as treasuries, the budget division and the internal audit division and would enable heads of departments (HoDs) to take the right decisions for better financial management of the state's resources. The state needs to build capacity in the finance department and modernize its treasury functions along the lines of states like Karnataka.

2.35 A progressive finance department would like to follow a process of realistic budgeting, which involves line departments and reflects policy objectives. This would eventually lead to performance-based budgeting. This needs to be backed by a strong internal audit function, which could be outsourced to professional audit firms as is being done by some states like AP and Karnataka.

B. Administrative and Local Governance

2.36 **Jharkhand faces serious challenges in the area of governance stemming from the lack of political stability and an inefficient administrative system**. The *first* challenge is to evolve a political consensus involving Jharkhand's disparate parties and factions on key reform issues. The *second* is to

improve the efficacy of the civil service by: (i) rationalizing departments and schemes; (ii) curbing premature transfers; (iii) improving performance and career management; and (iv) strengthening the presence and quality of block administration. The *third* is to encourage more accountability and transparency at all levels through greater use of e-governance, full implementation of the right to information legislation, and decentralization. Political decentralization will have to be complemented by administrative and fiscal measures to devolve real power and resources to PRIs. A *fourth* challenge is to establish genuine rule of law, which means curbing organized mafias and enforcing the law universally. The government should work closely with Jharkhand's many civil society groups to achieve these ends not only through consultation, but also by using their skills. This will help to implement programs better, train PRI representatives after elections, and conduct the evaluation of public services.

Political Governance

2.37 **The fact that none of the major parties has a secure majority has allowed small parties and independents to control the balance of power.** The risks of this delicately poised political situation are obvious: policy incoherence, political gridlock, and uncertainty. Clearly, there is a pressing need to develop political consensus on key issues important to Jharkhand's development. One symptom of the lack of political consensus is the growing activism of the judiciary in responding to governance challenges. Since the creation of Jharkhand, the courts have issued rulings – in response to public interest litigation – ordering the state to take action on a variety of fronts including: (i) holding Panchayati Raj elections; (ii) unbundling the Jharkhand State Electricity Board (JSEB); (iii) implementing a cooked mid-day meal program in schools; (iv) curbing leakages in the PDS; and (v) hiring doctors and para-medics on contract to fill vacancies.

Administrative Governance

2.38 Jharkhand's civil service continues to use procedures and systems inherited from Bihar. The revision of old manuals could be used to rationalize the structure of departments. Jharkhand's Rules of Executive Business provide for 40 departments; yet Jharkhand has only 12 ministers. This provides an opportunity to cluster departments in ways that improve functional efficiency with a minister and principal secretary responsible for each cluster. Manuals could be revised to accommodate the greater use of information technology, and secrecy provisions recast to ensure consistency with the recently passed Freedom of Information Act (2005).

2.39 There are ways to tackle the problem of frequent premature transfers that undermine service delivery. At lower levels of the civil service, particularly Grade III teacher positions, some states, such as Karnataka and Tamil Nadu, have experimented successfully with computerized transfer processes. At higher levels of the system, interference in transfers can be curbed by creating a statutory civil services board, an idea endorsed by the Chief Secretaries conference as early as 1996 to screen transfer requests. The government would have to furnish reasons for transferring an officer prematurely and the Board would have the right to refuse such requests. A computerized database could be established to track transfers over time, as Karnataka has already done, to monitor compliance with a three-year average tenure norm. Quantitative caps can be imposed to limit transfers: Karnataka, for example, has placed a cap of 5 percent of total civil service strength on annual transfers.

2.40 The government has an option to move towards a merit-based civil service, possibly starting with an improved performance management system of Grade I and Grade II officers first. Results expected could be specified at the beginning of the year. Officers could be graded on the basis of their ability to achieve these results in Annual Confidential Reports (ACRs). Negative ACRs can then be used to weed out non-performers through compulsory retirement. Promotions would then reflect prior performance rather than being the outcome of serving time. At the same time, the government should resist the temptation to create new posts to accommodate demands for promotion. The government might consider new pay policies to link performance and merit-based salary increases more clearly.

2.41 A zero-based review of all schemes will help to screen out schemes of marginal value, curtail unproductive expenditure and make monitoring more effective. For instance, the welfare department has approximately 120 schemes operating simultaneously, each receiving little attention, with a large proportion of expenditure devoted to salaries and establishment costs. Deputationists running welfare department schemes, for example, are less amenable to departmental control and often hold additional charges, resulting in a low attention span. Scheme administrators also complain of frequent transfers in programs, such as SSA. At another level, the problem reflects a growing vacuum in governance, particularly at the block level. Officials, citing insurgency problems, no longer reside in many blocks, visit block offices infrequently, and do not travel within their blocks regularly.

2.42 There are serious concerns about leakages. In the PDS, the Supreme Court's adviser in Jharkhand states that the diversion of foodgrains intended for the very poor under the Antyodaya Scheme is in the range of 40 percent to 50 percent. It is not clear how accurate the beneficiary lists are for most schemes. In the absence of strong PRIs, beneficiary lists are known to have been influenced by powerful locals at the expense of the needy. Several projects have experienced corruption in the process of tendering and procurement. Most schemes also lack an independent monitoring mechanism.

2.43 The GoJ has introduced some reforms, including streamlining the approval process, selective procurement procedures and third party inspections for a few schemes. The process of securing Cabinet approval for schemes has been streamlined, allowing for expenditure immediately after approval by the Cabinet and the State Assembly. The women and child department has revamped the procurement process for nutritional supplements by asking women's self-help groups (*mahila mandals*) to supply good-quality food from local markets, and allowing elected *anganwadi* workers to procure food from the block or district headquarters as well. With respect to third-party monitoring, the Xavier Institute for Social Sciences (XISS) is currently conducting a review of the Integrated Child Development Scheme (ICDS), while the Xavier Labor Relations Institute (XLRI) is doing one for SSA at the request of the central government. Finally, the inspection regime requires reinvigoration. Senior government officials need to visit their districts and blocks regularly. An energetic inspection regime can play a role in curbing corruption in schemes in the state's 211 blocks; the regular presence of government officials will fill the administrative vacuum currently exploited by extremists in some blocks.

Enhancing Accountability and Transparency

2.44 A multi-pronged anti-corruption strategy with preventive and enforcement measures to discourage corruption at all levels will send a signal that the government is serious about tackling the problem. Such a strategy should be based on extensive consultation with civil society and industry. Orissa has done well in framing a credible anti-corruption strategy and surveys indicate that the re-election of the NDA in Orissa was at least partly due to the government's relatively clean image.

Preventive strategies to reduce corruption and strengthen accountability

- **E-governance combined with business process re-engineering to simplify transactions and make them more transparent can play a vital role in reducing opportunities for corruption**. The computerization of land records in Karnataka, E-sewa centers in Andhra Pradesh and the introduction of computerized file monitoring in the Karnataka Secretariat are examples of successful e-governance initiatives. The application of e-governance, along with business process changes, such as banning the use of stamp paper, placing guideline values on the internet and creating model deeds, have improved the registration department in Maharashtra.

  Jharkhand could consider applying IT solutions to agencies with an extensive public interface, particularly the provision of land records, the development of urban and rural single-point delivery kiosks (using wireless technology when necessary), and the creation of information systems to centrally monitor schemes and the provision of other services. Experience from other states shows that e-governance solutions work best when a mix of factors prevail, particularly tenurial stability for administrators supervising the project, line department ownership, and high-level political support. A public-private partnership model usually works better than in-house efforts by bridging gaps in technical capacity and funding as well as injecting new management skills that might not be readily available in government. User fees retained by providers may be necessary to ensure the long-run sustainability of such initiatives.

- **Access to information can be a powerful tool to demand accountability in government programs, especially at the grass-roots level.** In Rajasthan, the Mazdoor Kisan Shakti Sangathan (MKSS) sought to uncover corruption in local public works by securing employment rolls, vouchers, beneficiary lists, and completion and utilization certificates. These were turned over to villagers for scrutiny at open public hearings called *Jan Sunwais* in the presence of the media and a panel of eminent persons. The key irregularities that emerged in public hearings were (i) hiring ghost-workers and pocketing the proceeds at the expense of real workers; (ii) paying for work not completed or not done at all; (iii) false bills and vouchers; (iv) the use of inferior materials for constructing local roads or public buildings; and (v) manipulating beneficiary lists for social programs. In Delhi, Parivartan used Delhi's Right to Information (RTI) law to expose corruption in the state's PDS by insisting on access to stock registers for comparison with household usage. The GoI has recently passed a forceful Freedom of Information (FoI) Act that applies to all state governments as well. This new law needs to be aggressively implemented and publicized in Jharkhand to improve accountability at the grass-roots level. Citizens' charters based on wide consultation could be introduced in major public agencies.

- **Decentralization in Jharkhand, can not only reinforce local-level accountability mechanisms, but open up new spaces for participation for groups hitherto excluded from the system.** Decentralization is a powerful tool for enforcing accountability if panchayats are empowered administratively and fiscally. In MP, for example, the state government's decision to place teachers under the supervision of GPs has reduced absenteeism to only 17 percent compared to 39 percent in Jharkhand in 2004 (World Bank, 2005). The GPs in MP were empowered with the capacity to recruit local teachers, authorize and withhold salary payments, and remove teachers in the event of non-performance. Madhya Pradesh now has the third lowest rate of teacher absenteeism in India after Maharashtra and Gujarat, despite being a low-income state like Jharkhand.

2.45 Jharkhand announced elections for PRIs, beginning September 26, 2005. The fact that this decision was made under pressure from NGOs and the High Court indicates that, unlike in MP, Jharkhand lacks strong political support for decentralization. Now that elections have been put on hold by a court order because of legal challenges over the state's reservations policy, there is a danger that elements opposed to holding these elections could seek to delay them indefinitely. If elections are delayed for a long period, Jharkhand will lose a crucial opportunity to improve the quality of governance where it counts -- at the local level and in the countryside. The key priority is therefore holding elections as quickly as possible.

2.46 When elections are held, a staggering 50,375 representatives will be chosen, including 13,894 women from a ST, SC, or Other Backward Class (OBC) background. In scheduled areas, the gram sabha will be vested with strong powers including the right to approve programs and projects, select beneficiaries, and certify the correct use of funds by the GP in the form of a utilization certificate, as per both PESA and the 2001 Jharkhand Panchayati Raj Act. Some activists have asked, and with good reason, why these powers specific to scheduled areas cannot be extended to all gram sabhas across the state. Yet, in other ways, the Jharkhand Act does not fully implement the provisions of the PESA Act. If the central PESA Act grants the gram sabha and panchayat "ownership" of minor forest produce, the Jharkhand Act vests panachayats with the right to "manage, collect, store, and market" minor forest produce, but not own it. If the central PESA Act allows the gram sabha and panchayat the right to prevent land alienation, the Jharkhand Act only allows the zilla parishad (ZP) the right to restore land alienated unlawfully. Finally, the central PESA Act makes it obligatory for state officials to consult the gram sabha or panchayat before granting leases for minor minerals and acquiring land for development projects; neither of these provisions finds mention in the Jharkhand Act. These inconsistencies are likely to breed more court battles once PRIs begin to function in the state.[42]

2.47 In order to promote the effective functioning of PRIs, beyond holding elections, the GoJ should consider the following steps:

- Amending the existing state legislation in different areas that contradicts either the central PESA Act or the Jharkhand Panchayati Raj 2001 Act, and within the two acts, to ensure compatibility.

[42] For a discussion of these issues, see PRIA (2004); Ekka (2003); Menon and Sinha (2003). See also, Government of Jharkhand, Law Department, Jharkhand Panchayati Raj Act, 2001 (Ranchi: Government of Jharkhand, 2005).

- Clarify the powers of different tiers of the PRI system through an activity mapping exercise involving critical line departments, elected PRI representatives, and NGOs. Jharkhand should seriously consider placing teachers, para-medics, and doctors at the Public Health Center (PHC) level under the direct control of PRIs with the power to recruit, monitor, and remove such staff. Jharkhand could begin the process by placing 60,000 contract teachers and 1,600 contract doctors under PRI control.
- A recent survey by the Indian Social Institute reveals widespread ignorance of the powers of panchayats and gram sabhas conferred by the central PESA Act across villages. The GoJ should take action to publicize these powers through training sessions with elected representatives, district-level officials, and NGOs, as well as the print and electronic media, to equip them to function within the new system.
- The financial basis of the emerging PRI system in Jharkhand remains unclear. The State Finance Commission has begun its work, but currently has only one chairperson and no members in harness.

Box 2. 2: Whither Panchayati Raj Elections in Jharkhand? The Legal Imbroglio

The path leading up to the notification of PRI elections – and the subsequent reversal of the decision to hold them – was beset with controversy. Some tribal interests argued that the Jharkhand Panchayati Raj Act (2001) was not fully consistent with the central PESA Act designed to extend the 73rd constitutional amendment to scheduled areas, while some non-tribal interests objected to elections on the ground that 667 panchayats notified as part of the scheduled areas were fewer than 40 percent tribal in population, but subject to tribal reservations as stipulated by the PESA law. Others complained that the Jharkhand 2001 Act had been poorly drafted in the absence of adequate public consultation. In the end the High Court - responding to several public interest litigation suits - blocked the holding of PRI elections scheduled to begin on September 26, 2005 because of concerns over the state's reservations policies including:

(a) The decision of the state government to allow 80 percent reservation of seats for election to the GP in scheduled areas to accommodate not just members of scheduled tribes (entitled to 50 percent of all seats under the PESA law), but those belonging to SCs and OBCs as well. The High Court ordered that under the law, reservations could cover no more than 50 percent of all seats, as per Supreme Court directives.

(b) The failure of the Jharkhand Panchayati Raj Act (2001) to reserve one-third of all chairperson positions in panchayats at the village, block, and district levels for women in general and scheduled areas. The Act allows for a reservation of 50 percent of these posts for members of STs in scheduled areas, but not specifically for women STs. In general areas, chairperson posts are open to all under the State Act.

(c) The High Court's decision to strike down a provision of the central PESA Act allowing for the reservation of all chairperson posts in scheduled areas for ST members on the ground that this violated Article 14 of the Constitution, which guarantees citizens equal protection under the law.

The root cause of the controversy is the fact that Jharkhand's tribal population is spread out over several districts, rather than concentrated in a few, creating the anomalous situation of several areas officially classified as scheduled with only a minority tribal population. De-scheduling these areas is likely to be a highly contentious and time-consuming process requiring presidential assent. The High Court's ruling has now been challenged in the Supreme Court; in the meantime, however, the government decided to cancel the decision to hold elections indefinitely, despite the High Court's order asking the government to show compliance with its ruling and hold elections by October 31, 2005.

Enforcement strategies to reduce corruption and strengthen accountability

- **Strengthening the Rule of Law**. Jharkhand, like many other states, has faced serious threats to the rule of law in various ways. One reason for this is the protection afforded by certain political figures to local mafias centered around the state's rich mineral, forestry, and land resources, making it more difficult for the police to take action. A few well-publicized actions to enforce the law would send a strong signal that the government is serious about

doing so. Reinforcing the operational autonomy of the state's police force is therefore a key element in the strategy to ensure the rule of law. The National Police Commission recommends several useful steps to enable the police to function in a more autonomous and professional fashion, including:

- The creation of an independent state police commission to: (i) establish clear guidelines for the functioning of the police; (ii) provide a forum for appeals against arbitrary decisions; and (iii) review the performance of the police through an annual report placed before the state assembly, for example.

- The Director General of Police in a state should be selected only on the basis of objective criteria possibly through the Union Public Services Commission (UPSC) and given a fixed tenure of three years by law.

- Appeals to the State Police Commission should be possible against mala-fide transfer or suspension orders. The authorities vested with the right to issue such orders should be clearly specified in the state's transfer policy.

The persistence of insurgency in several parts of the state also poses a danger to the rule of law and underlines the importance of developing a coherent strategy for tackling such issues. This includes: (i) greater political decentralization to absorb forces currently operating outside the formal political system; (ii) cracking down on corruption in government schemes and programs that hurt the poor the most; and (iii) bolstering administration in the state's taluqs.

- **Staffing and providing operational strength to the Lok Ayukta.** While Jharkhand has established an office of the Lok Ayukta (ombudsman) to provide an independent vehicle to combat high-level corruption, the office has yet to begin functioning properly. The Jharkhand Lok Ayukta Act allows the Lok Ayukta to investigate and recommend action in cases involving both corruption and public grievances. The Lok Ayukta can take *suo-moto* cognizance of such cases even without the filing of a formal complaint on the basis of media reports. Yet, the absence of investigating staff means that the Lok Ayukta has to depend on the government-controlled vigilance department to conduct investigations often at its own pace. The Lok Ayukta also claims that the government is slow to respond to their reports and has not cooperated fully in investigations involving officers of the Indian Administrative Service (IAS). There is no website to inform the public about the powers of the Lok Ayukta or the procedures for filing complaints, as is the case in Karnataka.

- **Enhancing the effectiveness of the vigilance department**. The vigilance department operating under the Prevention of Corruption Act (1988) is responsible for pursuing corruption cases against officials. As a government agency, it cannot pursue investigations against senior officials or prosecute them without permission from the Chief Minister. This is an important structural weakness not unique to Jharkhand: the freedom to pursue investigations is a key element in strengthening institutional capacity to combat corruption. The vigilance department has also been short of investigative staff but progress has recently

been made in filling vacancies, particularly at the level of deputy superintendents of police (DSPs).

The government intends to amend the Vigilance Bureau Manual to set time limits for completing early investigations. It may be useful for the government to set time limits, as it has on many occasions in the past, for the completion of departmental inquiries as well as monitor compliance closely. Of the 680 departmental inquiries initiated since the creation of the state in 2000, approximately 60 percent are still pending. Government orders that date back to the 1950s assign a maximum time of three to four months to complete an inquiry and impose either a minor or major penalty after appeals.[43] Officers leading inquiries should as a rule always be senior to the officer under inquiry and not hold other responsibilities that render them incapable of conducting swift disciplinary proceedings.

Both the vigilance department and the Lok Ayukta's office could profitably turn their energies to focusing on corruption and grievances in government programs and schemes as well as service delivery. Such a strategy is likely to aid common citizens more effectively. The Karnataka Lok Ayukta, for example, has played an important role in rooting out corruption in drug procurement, urban municipalities, and hospitals and emerged as a key channel for resolving complaints relating to service delivery.

C. Mineral and Environmental Governance

2.48 **The state's encouraging mix of natural resource endowments makes it an ideal destination for investment that could unleash growth and job creation.** Jharkhand means the "land of forests" and true to its name the state is endowed with vast forests and a rich assemblage of floral and faunal biodiversity. Few states in India can match the scenic landscapes and rich biodiversity of Jharkhand. The state is also home to a large tribal population who are heavily dependent upon forest resources for their livelihoods. Jharkhand has vast mineral reserves, with 33 percent of India's coal deposits, 47 percent of its mica and 34 percent of its copper. Creating a diverse and inclusive economic base calls for harnessing not just its comparative advantage in mining, but also the untapped opportunities for growth provided by tourism.

2.49 **However, the transition to industrialization, particularly mining-led growth requires strong government institutional structures to mitigate the associated environmental and social risks.** The development thrust of the state emphasizes growth in the mining sector, followed by improving agricultural productivity. A mineral-led growth strategy could provide the foundations for development provided the risks are well managed. Most of Jharkhand's mineral deposits are located in forests that are inhabited by tribals. Mineral development has therefore involved the destruction of forests, displacement of a large number of tribals dependent on the forests and high levels of pollution that have adverse health effects. Ignoring the environmental effects of mineral development has therefore fueled social conflict and discontent. This in turn is known to increase business risk and deter investments that are necessary for development. Agencies involved in environmental issues therefore have a crucial

[43] See for example, the GO issued by L.P. Singh, I.C.S., Chief Secretary of Bihar, 1953. Government of Bihar, Appointment Department, "Speedy Disposal of Disciplinary Cases against Government Servants" (Patna: January 9, 1953) reprinted in Bihar Board's Miscellaneous Rules, 1958 (Patna: Malhotra Brothers, 2004), pp. 153-154.

role to play in addressing these negative externalities to create social consensus needed for a sustainable flow of investment and growth.

2.50 **An environmental governance structure is in place with the respective roles of the central ministries, state departments and agencies well defined.** In Jharkhand the environmental regulatory framework is closely aligned with and embodied in the major central Acts of Parliament (such as the Environmental Protection Act and the Forest Act). Most of these policies are aimed at defining acceptable environmental standards and strengthening the enforcement authority of the state regulatory agencies. Under the Indian constitution, the states and central government share jurisdiction over forests. The Ministry of Environment and Forests is the lead central agency that defines national policy goals and sets the legal framework for controlling forest use. The state forest department is the dominant public agency responsible for implementing these laws and managing the state's forests. Projects that require clearance of forests in excess of 25 ha must undertake an environmental impact assessment. Application for forest clearance is invariably granted, but is conditional upon reforestation of an equivalent area of land through a process known as the Compensatory Afforestation Scheme (CAS). These policies are complemented by regulations on pollution levels that are enforced through the State Pollution Control Board (SPCB). The SPCB is charged with monitoring emissions, enforcing compliance and providing the legal "Consent to Establish" and "Consent to Operate" permits.

2.51 **While the overall legislative framework for environmental protection is well established across India, implementation of these policies remains a challenge in many Indian states.** This is particularly true of the newer states like Jharkhand, where environment agencies such as the SPCB are nascent and relatively weak. Evidence suggests that once the license to operate has been granted, there is limited monitoring of compliance levels. Hence numerous studies report that environmental regulations are routinely breached. Examples include forest clearance in excess of sanctioned levels, unsafe disposal of hazardous waste (e.g. asbestos at Roroburu), uncontrolled pollution of waterways, adverse health impacts and the economic exclusion of communities affected by mining. The CAS has also not lived up to its promise with indications that few such schemes have been satisfactorily implemented.[44] The depletion of forest resources remains a primary development concern in a state such as Jharkhand where a substantial proportion of the population relies on forests for their livelihood needs.

2.52 **The capacity, incentives and institutional design of the environmental agencies in Jharkhand need to match the growing demands placed upon these agencies by a mineral-intensive growth strategy.** There are large gaps in staffing the forest department with a 30 percent vacancy rate at the forest guard level. At the same time, the present system emphasizes top-down approaches that focus on administrative processes rather than environmental outcomes, thereby limiting the initiative and effectiveness of the field staff. A similar situation exists in the SPCB. If the state is to generate broad based-growth it will need to create greater social support for investment in the economy. This will require improvements in the capacity and ability to mitigate adverse mining impacts by enforcement of existing regulations.

The key elements of such a strategy would include:

[44] Kumar (2005).

- *Strengthening the capacity of the Jharkhand PCB to monitor and enforce compliance with existing regulations***:** This include: (i) developing and implementing a plan to upgrade skills; (ii) developing and adopting tools for better and faster evaluation of environmental assessment of investments; (iii) rationalizing consent management based on environmental risks and re-allocating resources towards more effective inspection and monitoring; (iv) decentralizing responsibilities to regional offices with the respective capacity upgradation in staff and equipment; (v) undertaking full computerization and web-based management of application processing and monitoring; and (vi) introducing greater information disclosure and transparency in decision-making, including getting ready to meet the requirements of the new Right to Information Act.

- *Building knowledge, awareness and capacity of line departments (industry and mining), investors and financial institutions to improve environmental performance:* Good environmental performance is increasingly seen as good business practice and a way to maintain competitiveness in global and domestic markets. There is a need for the line departments to provide timely information and technical support to investors on appropriate clean technologies.

- *Improving environmental compliance, performance and risk mitigation, and management in the mining sector,* which is associated with several issues and challenges, including the preparation and operationalization of detailed procedures for: (i) environmental compliance for different categories of mines; (ii) mine closure; and (iii) mining legacy issues. This will facilitate a sustainable development strategy for the mining sector, which is needed for benefits from investor interest in the state's mineral resources.

- *Strengthening capacity and efficiency of forest management institutions:* Mining-led growth will not gain the necessary public support without substantial improvement in the way that forestry issues are addressed in the state. Greater attention needs to be given to: (i) the complex forest clearance process; (ii) improving mechanisms for the accountability of the forest department in compensatory afforestation; and (iii) policy guidelines on how to economically restore lost ecological and livelihood benefits.

- *Promoting more effective public participation in environmental management***,** including: (i) raising knowledge and awareness; (ii) a more informed and constructive public hearing process; and (iii) the involvement of citizens in monitoring and enforcement.

Chapter 3: Improving Rural Opportunities for Shared Growth

3.1 **This chapter presents the diagnosis for rural backwardness and indicates the possible avenues for unlocking rural opportunities for shared growth in Jharkhand.** Improving economic opportunities in rural areas depends on several factors, such as initial asset endowments (household and geographical), market conditions, quality of institutions, and development interventions (including infrastructure, access to finance, technology, and social policy).

A. Access to Assets

3.2 **An average rural household in Jharkhand is in a disadvantaged position with respect to access and control of assets.** Assets, as defined in terms of the rural livelihoods framework, include natural, human, physical, financial, and social assets.[45]

3.3 **The most important physical asset, land, shows highly skewed distribution in rural Jharkhand**. According to the 2005 RJBS data the bottom 43 percent of the rural population, as per the landownership scale, has only 4 percent of land, while the top 8 per cent has 41 percent (Table 3.1). The average size of landholdings has declined over the 10-year period from 2.25 acres to 1.64 acres, which is a very sharp drop by any standard. This has been accompanied by growing land alienation, as indicated by the rising Gini for landownership from 0.65 to 0.70. The relatively high inequality in land distribution is surprising given the colonial legacy of legal restrictions on the transfer of tribal land ownership in the state. It is quite possible that the 2005 RJBS data has overstated the inequality of landownership. Estimates based on the 55th round of NSS indicate, however, that the concentration of landownership in rural Jharkhand is indeed considerably skewed notwithstanding the legal protections of tribal land, as originally envisaged in the Chhotanagpur and Santhal Pargana Tenancy Acts. The estimated Gini inequality of rural land ownership for the state in 1999/00 was 0.64, which is admittedly lower than the all-India average of 0.71, but would still appear to be on the high side (given the initial condition of tribal land ownership). More importantly, inequality in land distribution is possibly on rise in the recent years through illegal (distress) land transfers.[46]

Table 3. 1: Distribution of Land and Non-Land Assets

(in percent)

	Households	Land Owned Now	Land Owned 10 Years Ago	Non-Land Assets
Land Ownership Category				
Functionally Landless	43.0	4.2	7.7	24.6
Marginal	21.2	12.0	15.6	19.8
Small	15.7	17.5	18.0	24.6
Medium	12.8	25.1	24.4	15.7
Large	7.5	41.2	34.3	15.3
Social Category				
SC	11.5	8.5	7.0	8.0
ST	26.9	34.0	36.6	18.7
OBC	46.0	38.7	38.6	54.2
Others	15.7	18.9	17.8	19.1
Total	100.0	100.0	100.0	100.0

Source: Estimated from the 2005 Rural Jharkhand BaseLine Survey (RJBS).

[45] Ellis (2000).

[46] Prevention of tribal land alienation is a much discussed public issue in Jharkhand. Unfortunately only anecdotal evidence is available in this regard. In case of un-lawful transfer of tribal land in contravention to section 46 of the Chhotanagpur Tenancy Act, person can apply against the revenue court. In 2003/04 alone 4263 cases of tribal land alienation were officially registered. According to the estimates of the People's Union for Civil Liberties (PUCL) about 15 lakh acres of adivasi land has been

3.4 **While other non-land assets are also distributed unequally across the rural sector, the extent of inequality appears less dramatic.** A case in point is access to physical assets such as agricultural and non-agricultural assets (including consumer durables). The bottom 43 percent along the landownership scale command only 25 percent of non-land assets, while the top 8 percent have 15 percent. This also comes through the prism of the social divide: the tribal category, constituting about 27 percent of total households, has a share of about 34 percent of land, but owns only 19 percent of non-land assets.

3.5 **Human asset endowment in rural Jharkhand is quite low, though not as skewed as the distribution of physical assets.** Three different measures of the stock of human capital can be considered: (i) household heads with some exposure to formal education (54 percent); (ii) household heads that have completed primary education (43 percent); and (iii) household heads that have completed secondary education (17 percent).[47] Even at this low level of human asset endowment, the poor and non-poor divide (howsoever it may be measured) is quite pronounced at the post-secondary level. Only 15 percent of the poor household heads have attained education up till class X and above, while the corresponding figure for the top non-poor is 31 percent. At below-secondary level education, however, the poor and non-poor divide is not as sharp: while 49 percent of the poor household heads did not have any exposure to formal education, the corresponding figure is 35 percent for the top non-poor. This has been the result of historical neglect of basic education of the rural population afflicting not just the income-poor.[48]

3.6 **For the disadvantaged poor, access to favorable market arrangements can improve the returns to initial assets.** For example: (i) the land-poor can gain access to land through the tenancy market; (ii) returns to land can be enhanced through improved access to technology such as irrigation; (iii) returns to labor can be higher if the poor have access to jobs with better remuneration; and (iv) access to capital through credit markets can help support rural-farm, off-farm or non-farm diversification. However, this is not the case in rural Jharkhand.

3.7 Not all markets are discussed here, partly because of lack of information, and partly because of prioritization. The size of the land-tenancy market, for instance, is very limited in the context of Jharkhand: leased-in land accounts for only 7 percent of cultivated land (much lower than 30-35 percent in West Bengal and 23-26 percent in Bangladesh). On the other hand, little information is currently available on the structure, level of integration, and value-chain in the output market disaggregated by food and cash crops.

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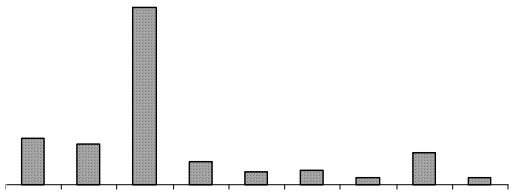
alienated from them during 1950–1990 for setting up industries, mines, large dams, animals sanctuaries, and highways. Another 8 lakh acres have been fraudulently and illegally snatched from them by "unscrupulous outsiders". Land alienation resulted in large-scale displacement; 36 lakh adivasis have been displaced, and only one-third of them have been rehabilitated (see, for example, http://www.pucl.org/Topics/Dalit-tribal/2004/adivasi-jharkhand.htm).

[47] Human educational capital is a "stock" concept, as an embodiment of the threshold level of knowledge and skills, and is to be distinguished from enrolment, which is a "flow" concept. There is some debate as to which indicator is to be taken as the proxy for human capital—literacy, primary completion rate or secondary completion rate. While the precise measure can justifiably vary across country contexts most opinions agree that the focus should be beyond just "literacy". The other important distinction lies in the choice of the demographic group. Since human capital is a direct input into the production process, it is important to focus on the labor force segment of the population, which is why it is important to define literacy or completion rate measures for the adult working population, rather than for population aged seven years and above.

[48] This has been the case until recently. The expansion of basic education (up to class VIII) has been quite rapid in recent years after the creation of the new state (more on this in Section 5).

B. Access to Labor Market

Figure 3. 1: Main Occupation of Rural Working Population



3.8 The analysis of labor market participation reveals five main conclusions. They relate to: (i) the subsidiary status of farming; (ii) the predominance of non-agricultural casual labor as the main form of employment; (iii) a limited role for rural non-farm self-employment; (iv) the relatively higher incomes of non-agricultural (especially salaried) workers; and (v) an increasing rate of distress out-migration. *First*, farming is largely seen as a subsidiary occupation both for the poor and the non-poor with 39 percent of the rural working population regarding it as their subsidiary occupation and only 12 percent considering it as their main occupation (Figure 3.1). In contrast, rural wage labor is the main occupation for 61 percent and the subsidiary occupation for 20 percent of the rural working population. This is in sharp contrast to irrigated agriculture in the plains such as in West Bengal, Bihar and Bangladesh, where farming tends to be the main occupation of at least 40-60 percent of rural households while the corresponding figure for rural wage labor is in the range of 25-33 percent. The low variation in this respect across different agro-ecological regions suggests that the relatively low share of farming in Jharkhand is not the outcome of agro-ecological constraints alone.

3.9 ***Second*, in the case of traditional subsistence agriculture, prospects for casual agricultural wage employment are extremely limited even for poor households.** As per the principal status of employment, on average, only 13 percent of the rural poor are engaged in agricultural labor. In comparison, 48 percent of the rural poor are employed in non-agricultural casual wage employment, mainly in construction and transport and less so in mining and manufacturing. These activities are characterized by very low labor productivity; consequently, the rural wage rate in Jharkhand is very low (Table 3.2). In fact, the agricultural wage rate appears to rank the lowest amongst the Indian states along with Orissa and Andhra Pradesh.

States	Agricultural Wage Rate (Nominal)		
	Male	Female	Average
Jharkhand	48	34	41
Bihar	53	47	50
Orissa	51	30	41
West Bengal	63	50	57
Andhra Pradesh	51	33	42
Tamil Nadu	93	42	68
Karnataka	55	36	46
Maharashtra	57	36	47
All-India	63	43	53

Source: Indiastat.com

3.10 **Third, the development of rural non-agricultural self-employment enterprises has been sluggish in Jharkhand.** Currently the sector provides employment to 6 percent of rural households as per the principal employment status criterion and to 8 percent as per the principal income source criterion. This is not unexpected, given the relative absence of consumption demand induced linkages in the context of un-irrigated agriculture.

3.11 **Fourth, the low rate of return to agricultural self-employment is specific to Jharkhand. The latter is only slightly higher than in the case of casual agricultural wage labor, and quite similar to that for non-agricultural wage labor.** There is no direct way of comparing returns to labor by farm/ non-farm status and by mode of employment. Indirect estimates (taking per capita monthly consumption by main employment status of household head) show the familiar ranking: the return to regular wage labor is higher than the return to casual wage labor and the return to non-farm labor is higher than the return to farm labor (Table 3.3).

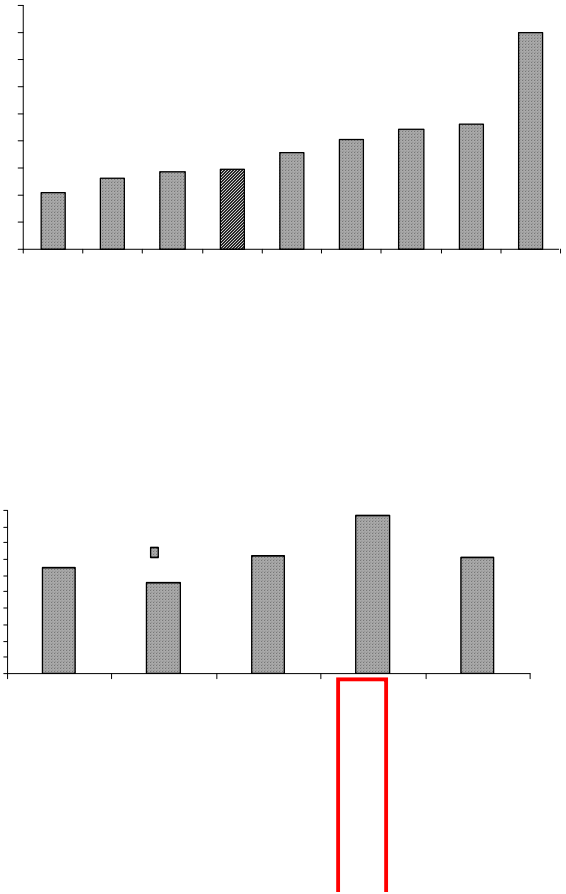
Table 3. 3: Relative Return to Farm and Non-farm Activities by Modes of Employment

Sectors/Modes of Employment	Relative Return (Regular Wage = 100)	
	Employment Status	
	Main Occupation	Main Source of Income
Regular Wage-Employment	100.0	100.0
Non-Farm Self-Employment	0.77	0.83
Casual Non-farm Wage-Employment	0.59	0.66
Farm Self-Employment	0.64	0.61
Casual Self-Employment	0.50	0.58

Source: Estimated from the 2005 Rural Jharkhand Baseline Survey (RJBS).

3.12 **Fifth, while the rate of migration has increased at a fast pace over the past 10 years across all social categories, migration offers upward mobility only for a third of rural migrant households.** For others, migration does not offer any immediate upward mobility, although it provides rural poor households access to scarce cash income. It is not difficult to understand the motivation of distress migration. The rate of unemployment in Jharkhand was one of the highest among the Indian states in 1999/2000, which was confirmed by a perception survey (Chapter 1). Ten years ago, about 66 percent of rural respondents thought that it was harder to find employment in rural areas. This figure dropped marginally to 62 percent in 2004/05, indicating that the employment situation has improved only marginally since the emergence of the state. In such a situation, a high rate of out-migration would be expected. The proportion of households reporting migration has gone up sharply from 1.5 percent to 5.1 percent according to the baseline survey data, indicating a three-fold increase over a 10-year period. The rate of migration has increased for both poor and non-poor (and for tribal/ non-tribal groups), but the rate is about twice as high for the non-poor group compared to the poor. The growing role of migration can also be seen from the considerable weight of households with dependence on income from migration (Figure 3.2).

Figure 3. 2: Household with Migration –Income



3.13 **An analysis of migration history for the sample, however, suggests that as**

many as 60 percent of the households have recorded livelihood migration over the 20-year period between 1985 and 2005.[49] Of these, about 4 percent moved to a different district within the state and another 4 percent to a different state, indicating that most of the migration has taken place within the same district. This is not unexpected given that there is a high cost to migration, which is marked by risks and uncertainties. Another important constraint may be social exclusion, i.e. barriers to entry to urban higher-income jobs, especially for the SC/ ST population who would have to compete with both upper caste workers and in-migrant settlers from other neighboring states. As a result, since most of the migration takes place within the same district, the well-being of only one-third of the migrants has improved (Figure 3.3). The incidence of self-reported improvement is proportionately more for the non-poor than for the poor (49 percent versus 33 percent).

3.14 **Raising the productivity of farm self-employment appears to be crucial in influencing labor market dynamics along a pro-poor development path.** If the productivity of farm self-employment could be increased through the adoption of improved technology and better crop practices, it could change the current pattern of utilization of rural labor. This would reduce the excessive dependence on casual wage labor, especially non-agricultural wage labor and make farming a more remunerative occupation, thus increasing its weight as the principal status of employment. Such a development would be beneficial for the growth of rural non-farm self-employment through the consumption demand induced linkages arising out of agricultural growth. The trigger for such a process could come from the adoption of appropriate forms of irrigation technology, access to power, and road infrastructure.

C. Access to Infrastructure

3.15 **Bridging the huge gap in the provision of infrastructure services requires large investments as well as determined concurrent institutional and policy reforms.** Infrastructure, particularly irrigation, power and roads, is a critical requirement for accelerated and inclusive growth. While access to these services across the state is an issue, the situation is worse in rural areas.

Access to Irrigation

3.16 **Among the key infrastructural elements, appropriate irrigation technology is one of the most important.** Irrigation-led agricultural growth has been the key trigger of successful agricultural transformation over the past thirty years in most regions of South Asia.[50] Adoption of irrigation technology can have an immediate effect on rural livelihoods by: (i) raising land productivity; (ii) increasing household food security; and (iii) enhancing profitability of farm operations thereby leading to a rise in real land values. These would eventually lead to the revival of agricultural labor and land tenancy markets, reducing the rate of distress out-migration, and also support rural non-farm growth via favorable linkage effects.

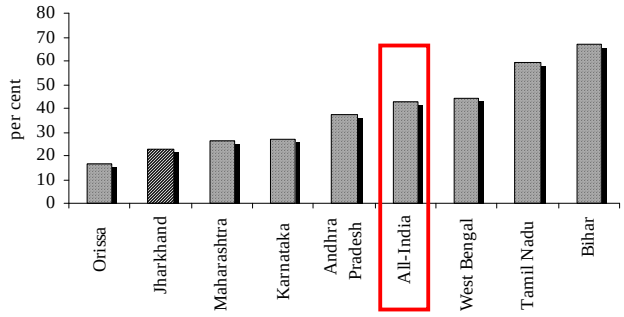
3.17 **Other factors can start functioning more effectively once irrigation technology is in place.** The role of agricultural extension becomes important both for informed crop choice

[49] Assessment of the annual migration rate is difficult to estimate from the existing data.
[50] Mellor 1976

differentiated by agro-ecological potential and for the dissemination of improved cultivation. With a growing marketable surplus, agricultural marketing becomes important, which in turn leads to an increased demand for new road investments and better maintenance of existing roads for reducing transport costs. The development of transport infrastructure has a direct employment effect for transport operators. Increasing purchasing power of the farm sector also raises the demand for goods and services produced by the non-farm sectors. This, in turn, creates the scope for increasing productivity enhancing as well as employment generating potentials of the rural non-farm sectors. Once the demand side constraints are released, access to power (and other inputs) can help release the supply-side constraints in the rural non-farm sectors.

3.18 **The rate of irrigation is low and distributed extremely unequally—more unequally than the distribution of physical and human assets.** The level of irrigation remains one of the lowest among all the states. According to the NSS data, the irrigation rate (defined as irrigated land as a percentage of cultivated land) is only 23 percent for Jharkhand compared to 41 percent at the all-India level (Figure 3.4). Besides, not only is the rate of irrigation low, it is also highly unequally distributed. Nearly all the irrigated land classified in the NSS data is concentrated in the first two deciles—which indicates a much higher concentration ratio than in case of physical and human assets.

Figure 3. 4: Share of Irrigated Land



Source: Estimated from NSS 55th round, Schedule 1.

3.19 **The lack of investment, institutional capacity, user participation and inadequate agricultural extension services are some of the reasons responsible for only about 10 percent of the total cultivated area receiving some form of irrigation in Jharkhand**. *First*, the irrigation coverage is quite low partly due to lack of investment in the past. A well-prepared investment plan based on a robust set of data used in a Decision Support System (DSS) model with appropriate cash flow forecasts is required. If the absorption capacity can be created, feasible investment in this sector over the next two decades could be around Rs. 10,000 crore. *Second*, the technical skills available in the water resources department need urgent improvement in order to design modern irrigation infrastructure and to operate and maintain it in a sustainable manner. At present, irrigation coverage is about 200,000 ha. With the proposed investment, this coverage would expand to 1,000,000 ha. The present capacity to handle this fivefold increase in the magnitude of operation is inadequate. *Third*, community participation in irrigation operations in Jharkhand has been minimal, contributing to poor services and lack of accountability. Involvement of all stakeholders, especially users, would require enactment of necessary legislation. *Finally*, up-scaling of irrigation infrastructure must be carried out with improving productivity of water and land as the objective. This objective can be realized only with agricultural intensification and diversification to income-earning crops that can be grown with limited water, using improved irrigation and agricultural technologies. It is necessary to go beyond the line agencies and reach out to the private sector, including NGOs, to obtain this service.

3.20 **It is possible to improve the situation substantially** by: (i) completing ongoing schemes as quickly as possible in a rational manner; (ii) promoting equity through investment in areas neglected so

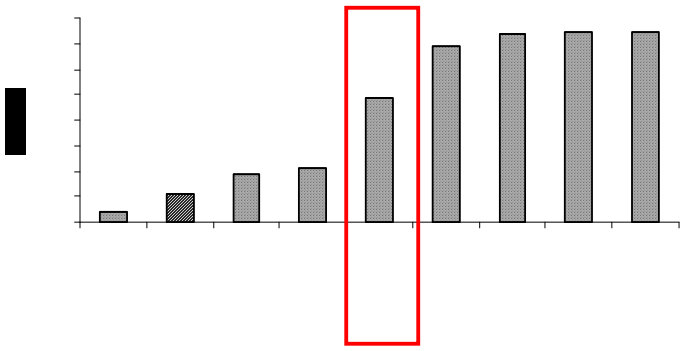
far; (iii) developing hydropower for increasing irrigation coverage through groundwater exploitation, using shallow or open dug wells; (iv) unbundling water resource management from irrigation service provision to develop these resources in an efficient manner while addressing various competing demands on this resource; (v) introducing new institutional arrangements with a state-level apex body like the State Water Resources Agency, and basis and management agencies; (vi) appointing an independent regulator (similar to the electricity sector regulator) to encourage public-private partnerships in developing mini hydroelectric stations and irrigation systems with specialized agricultural crop zones; and (vii) facilitating capacity building of the irrigation service delivery institutions, including improving the technical and managerial capacity of the service provider.

3.21 **If addressed, irrigation can provide a viable entry point for accelerated rural development.** This is so for two reasons. *First*, the technical scope for irrigation expansion exists and needs to be reaped in full. The current low irrigation coverage indicates that there is room to grow at least up to 40 percent of cultivable land. While the groundwater potential is limited (only 25 percent of total irrigation potential) the scope for surface water irrigation is considerable. Different types of irrigation possibilities, that is, major-, medium-, and micro- irrigation systems can be developed. Indeed, different irrigation technologies can entail different ownership mix possibilities: while major and medium irrigation systems are likely to be public sector led, micro-irrigation through water harvesting is suitable for the tribal upland and likely to be community led. In Jharkhand, irrigation coverage did not expand in the past largely because of under-investment in major and medium irrigation systems.[51] *Second*, returns to irrigation appear to be considerable even in the present context. Based on NSS data it is estimated that the impact of adding an extra unit of land under irrigation increases average per capita monthly expenditure by about 17 percent while controlling for regional effects (Annex Table 3.1, col. 2).

Access to Power and Roads

3.22 **The return to initial assets can be enhanced through improved access to physical infrastructure such as electricity and roads.** Comparable estimates based on NSS data suggest that household access to electricity at 11 percent is extremely low in rural Jharkhand, compared to 48 percent for rural India (the only state that has a lower access rate than Jharkhand in this sample is Bihar). Similarly, while 80 percent of the NSS primary sampling units at the rural all-India level have reported the presence of electricity, this figure is only 26 percent for rural Jharkhand (Figure 3.5).

Figure 3. 5: Rural Access to Electricity

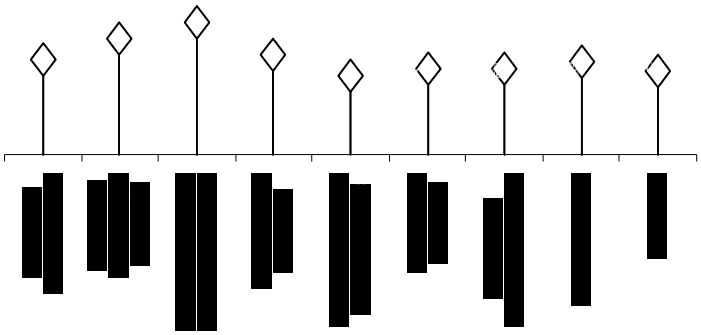


Source: Estimated from NSS 55th round, Schedule 1.

[51] More on this in Chapter 4.

3.23 **With respect to road access, rural Jharkhand is in a disadvantaged position vis-à-vis the all-India average.** Only 36 percent of villages in the state have immediate access to all-weather roads compared to the all-India average of 57 percent.[52] Bihar is the only neighboring state which has a lower rate of all-weather and metal road access.

Figure 3. 6: Percentage Respondents Rating Road/Transport Attributes as "Good" on 3-point Scale



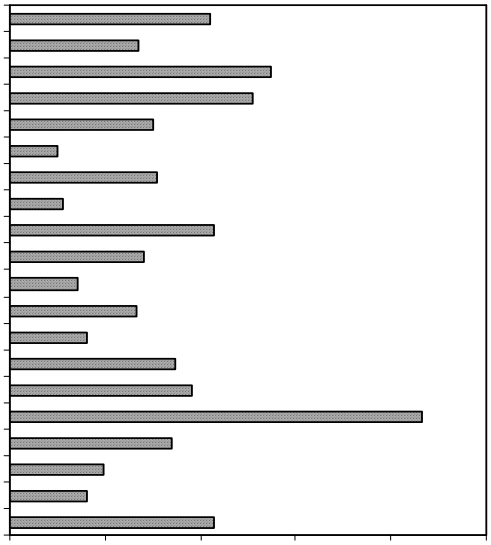
Source: Estimated from the 2005 Rural Jharkhand User Satisfaction Survey (RJUSS).

3.24 **Lack of clarity of roles, non-participation by non-state government stakeholders, poor funding mechanisms and outdated business and management practices are amongst the underlying causes for poor road service delivery.** There is a lack of clarity with respect to responsibilities for different parts of the network and different aspects of the system (construction, operation and maintenance). For example, rural roads are somewhat arbitrarily reassigned between the Rural Engineering Organization (REO) and Road Construction Department (RCD); or constructed under one rural development scheme or another only to find itself "orphaned" with no agency to maintain it. In several such areas, including road safety, accountability is unclear.

[52] The corresponding figures for village-level access to metal roads are 25 percent and 45 percent.

3.25 **However, the findings of the User Satisfaction Survey are not so bad**. A number of respondents in the survey rated certain aspects of rural road and transport services as "good"[53] (Figure 3.6)**.**

Figure 3. 7: Impact of Community Assets on Income



3.26 **Both electricity and road access at the community level can make considerable difference to average rural affluence.** This can be measured by a range of indicators (Figure 3.7). Just being located in a village with electricity access can increase average income (consumption) of a typical rural household by about 22 percent. When the condition of road access is good, it can enhance income by about 18 percent. The largest impact is noted when the village is directly connected to a wholesale market by good road access; the corresponding difference increases over 40 percent compared to those communities without such access. The expansion of this basic infrastructure tends to result in the clustering of other infrastructural factors such as bus-stops, pharmacies, public telephones, post offices and small community-level shops around roads and electricity.[54]

D. Access to Credit Markets

3.27 **Access to formal credit is extremely low, even for the non-poor category. Only 20 percent of the demand for loans is related to productive (farm and non-farm) purposes, while the rest is accounted for by consumption and risk-coping.** Access to credit (capital) markets is an important factor for stimulating both farm and non-farm growth. As per the Baseline Survey Data, only 17 percent of rural households had taken credit from any source during the year preceding the survey (i.e. 2004/05). A formal/ informal breakdown based on the last credit transaction over the past five years shows that only 20 percent of the loan cases can be attributed to any institutional source (16 percent are provided by government and commercial banks). Moneylenders account for about 39 percent of loan cases while a slightly higher proportion of loan cases are accounted for by the "friends and relatives" category. Most loans (81 percent) were for non-productive purposes (consumption loan-18 percent; coping with risks such as health and social/ festival expenses-63 percent). Only 19 percent supported productive investments, indicating the nature of demand in the credit market.

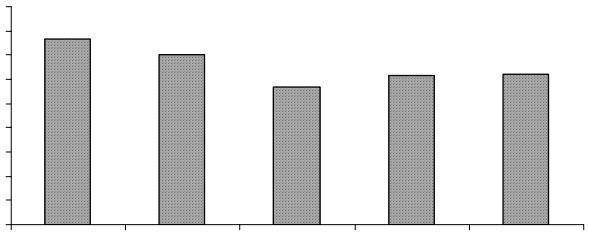
[53] User Satisfaction Survey of Rural Services, ORG for World Bank, 2006, based on a sample of 1400 respondents.
[54] Bivariate correlation among these factors range from 0.3 to 0.6 in the community level of data of the Rural Jharkhand Baseline Survey.

3.28 **With respect to financial assets, rural Jharkhand is characterized by the lack of access to credit rather than inequity.** This may be partly explained by the persistence of low demand for credit given the aspect of largely un-irrigated agriculture and little rural diversification with low returns to assets. But, low access may well be due to the lack of financial institutions. According to the 2002 survey carried out by the NSSO, self help groups (SHGs) are present in only 5 percent of villages in Jharkhand, as compared to 11 percent in Orissa, 23 percent in West Bengal, 28 percent in Chhattisgarh, and 80 percent in Kerala, with the all-India average at 24 percent.[55] Only 3 percent of Jharkhand's villages have the presence of NGOs. As many as 60 percent of these villages are located at a distance of 5 km and above from the nearest bank with 27 percent at a distance of more than 10 km.

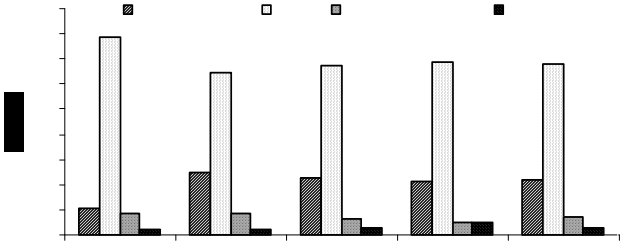
E. Risks and Risk-Mitigating Institutions

3.29 **Susceptibility to risks is extremely high in rural Jharkhand. At the rural level about 35 percent of households faced a major crisis-event in the past three years with higher vulnerability recorded for the poor than for the non-poor.** The highest percentage (38.2 percent) of crisis events was experienced by food-deficit households in contrast to 30 percent observed for the food-surplus category (Figure 3.8).

Figure 3. 8: Incidence of Crisis in Past Three Years



3.30 **Idiosyncratic risk such as health shocks and covariate risk such as natural disasters constitute the two most important categories among the shocks.** Health shocks account for about 68 percent of all crisis events, followed by natural disaster (22 percent). In the case of rural Jharkhand, almost all the natural disaster events are caused by drought leading to crop failure (Figure 3.9).



3.31 **The difference between the poor and the non-poor living in the same community does not manifest so much in the overall incidence of crisis-events as in the case of the varying coping methods.** While the poor are more vulnerable to the so-called negative coping methods such as distress sale, drop in consumption or borrowing at higher interest, the non-poor can deploy less costly coping methods such as dissaving or

[55] NSSO (2003).

accessing soft loans. For example, in the case of food deficit categories, the financial cost triggered by the crisis was mostly managed through the support of family or friends, in the absence of which households were forced to take loans at higher interest rates to cope with the crisis. The situation was different for breakeven (no deficit-no surplus) and surplus food categories, almost 35 percent of which had family support as the first source to cope with the financial cost induced by crisis. The difference between the two categories lies in their relative ability to cope through buffer saving. While 30 percent of households in the surplus group coped with crisis by spending through the buffer saving, the corresponding figure is 15 percent for the breakeven category.

F. Livelihood Outcomes and their Determinants

3.32 Access to household, community and public assets, different factor and product markets, availability of infrastructure, and susceptibility to a variety of exogenous shocks with diverse methods of coping can influence the occupational choice and rate of return to assets, in turn determining livelihood outcomes.[56]

Insights from NSS Thick Round Data

3.33 **Results from micro-analysis using data of NSS households surveyed in Jharkhand under the 55th round highlight some special features of rural Jharkhand.**[57] *First*, education has an effect on increasing rural household income only after one reaches the post-secondary education level suggesting that the incremental effect is rather modest in households headed by someone with secondary education while the gains to completing college education are much higher.[58] The problem is that only a few rural households can take advantage of this, as access to human capital is extremely limited both at secondary (18 percent of household heads) and post-secondary (5 percent of household heads) levels of education. *Second*, electricity access appears to have strong effects on increasing rural income.[59] The income of households who have access to electricity is Rs. 188 (amounting to 46 percent of the average per capita monthly expenditure in rural areas) more than those without such access. The quantitative importance of electricity access is second to having post-secondary education. Unfortunately, only 10 percent of the rural households currently have access to electricity. *Third*, only 22 percent of the cultivated land is irrigated at present. Quantitative analysis indicates considerable effects of irrigation access on increasing rural household income.[60] *Fourth*, households who have temporary or seasonal access to work in nearby towns have higher incomes than those who lack that access.[61] Unfortunately,

[56] In this section the term "income" and "survey- based consumption expenditure" has been used interchangeably. This is because although we are interested in the analysis of household income the survey data for India is typically available for consumption expenditure only.
[57] Detailed results are presented in Annex Table 3.1.
[58] While the incremental income effects of households with someone with college-level education are in the range of Rs. 248-266 (about 60-65 percent of the average per capita monthly NSS expenditure in rural areas), it is only about Rs. 40 higher compared to the reference category of heads with no formal education (about 10 percent of average per capita monthly expenditure).
[59] NSS data have limited information about household access to infrastructure. Connectivity to all-weather rural roads is one important missing variable. However, it is possible to assess the impact of access to electricity and irrigation.
[60] Addition of an extra unit of land under irrigation coverage will increase per capita income by about Rs. 35 (about 9 percent of average per capita monthly expenditure). The marginal effect increases to Rs. 65 (about 17 percent of average per capita monthly expenditure) if one controls for the regional effects.
[61] The matched difference is Rs.70 (equivalent to 17 percent of average monthly expenditure).

the pace of urbanization has been rather slow in the state.[62] *Fifth*, participation in non-farm and non-agricultural activities increases rural household incomes indicating the importance of rural diversification. Compared to the reference category of construction, households that derive their main source of income from these sources have considerably higher household income.[63] The key problem is that only a few rural households currently participate in these growth promoting, non-farm and non-agricultural activities,[64] because entry into formal services requires access to human capital, entry to the trade and transport business requires access to financial capital, entry to rural manufacturing requires artisanal skills and proximity to markets, and mining (as has been seen earlier) owing to its capital-intensive nature currently offers limited job openings. *Sixth*, the results also suggest the need for addressing regional imbalances, as there is statistical evidence of considerable regional disparity in rural income, adding an important dimension to any inclusive growth strategy in Jharkhand. The rural parts of Godda, Sahibganj, Dumka, Deoghar appear to be significantly poorer while Ranchi and East Singhbhum are significantly richer compared to the reference category of Pakur. *Last*, results show that, controlling for all other characteristics, the SC/ ST and OBCs [65] have much lower income (with ST being the most disadvantaged) compared with the more privileged groups. This is not only due to the fact that they are relatively more asset-deprived, but also possibly because the return to their assets is lower.

3.34 **One limitation of the NSS rounds data is that it does not contain any community module and hence cannot capture the independent effects of community assets on rural consumption (income).** Jharkhand's baseline surve**y** carried out during 2005 in connection with this study can be used to explore the relative importance of various community- level factors. Additional motivation of using this new survey data is to check the robustness of the previous NSS-based findings along with new household-level factors not captured earlier.

Insights from Rural Jharkhand Baseline Survey Data

3.35 **Some striking similarities between the NSS and the baseline survey data relate to the following: (i) low returns to un-irrigated cultivation practices; (ii) very low returns to land; (iii) greater importance of non-agricultural regular wage labor and/or skill demanding jobs; (iv) disadvantaged position of the female worker; (v) lower income earning status of the tribal and lower caste population (followed by OBCs and SC/ST); and (vi) strong favorable effects of household access to electricity and access to post-secondary education.** Annex Table 3.2 presents regression results in three groups: (i) results with only household-level factors; (b) results with both household and community-level factors; and (iii) results with household, community and region-level factors. The focus will be on the second set of regression results involving household and community-level factors.

[62] Annual urban population growth was 2.9 percent between 1991 and 2001, compared to 3.1 percent at all-India level. The matched pace is similar to Orissa and Bihar (2.9 percent in both cases), but was much higher in the newly created states such as Chhattisgarh (3.6 percent) and Uttaranchal (3.3 percent), and in advanced states such as Punjab (3.8 percent), Tamil Nadu (4.3 percent), and Maharashtra (3.4 percent).

[63] The incremental difference is Rs.57 for mining, Rs.58 for trade, and Rs 62 in manufacturing. The highest incremental effects are noticeable in case of transport business (an addition of Rs.121), followed by formal service (an addition of Rs.100).

[64] 2 percent in mining, 3 percent in formal services, 7 percent in manufacturing, 16 percent in trade, and 17 percent in transport business.

[65] The above three groups considered together constitute as many as 83 percent of the rural households (and 75 percent of all households in the state) as per the NSS data for the 55th round.

3.36 While most results based on the NSS round have been vindicated by the new survey data, some additional aspects are noteworthy. *First*, as expected, farming appears to be a residual employment category in the current context of rural Jharkhand, constrained by techno-economic factors. The most promising occupations are specific activities in non-agricultural sectors such as salaried job, informal service, and non-farm self-enterprise. Access to all of these activities requires human capital (some degree of prior skill formation), entrepreneurship, and access to finance. *Second*, migration to non-agricultural sectors when it is driven by pull-factors can be an important income-augmenting source and can contribute approximately 20 percent of per capita monthly consumption expenditure. *Third*, while both female and male workers contribute to household income, the degree of gender inequality is quite high. Thus, controlling for other demographic, household and community characteristics, an average male earns an income that is twice as high as an average female worker. *Fourth*, as in the case of NSS round data, it is only at the post-secondary level of education (those who completed Class X and above) that the return to human capital becomes significantly positive. Household heads who have attained this level of education can contribute an amount equivalent to 12-15 percent of per capita average monthly consumption. The corresponding figure for electricity access is also of similar magnitude (about 15 percent).

3.37 **The rural baseline survey clearly establishes the independent importance of community- level assets over and above the demographic and household-level factors. Access to market-connecting roads, the quality of approach roads, financial access through alternative channels as mediated through NGOs and vibrancy of the local economy all appear to contribute favorably to increasing average rural income.** Market connectivity appears to be an important factor, especially when the village is in close proximity to a main road connecting to a large growth center such as a wholesale market. This factor alone contributes an amount equivalent to about 20 percent of per capita consumption. It is noteworthy that the presence of SHGs in the village is not a statistically significant factor of income-determination. Part of the reason for insignificance may lie in the quality of Jharkhand's SHG movement.[66] Although SHGs are present in 22 percent of villages as per the baseline survey (up from just 5 percent as per the NSSO data for 2002), their quality may have deteriorated with the rapid pace of expansion post-bifurcation. However, microfinance and other programs supported by NGOs can have an important effect on income (the matched contribution is about 11 percent of average per capita consumption expenditure). The most important factor is, perhaps, vibrancy of the local economy (captured here via the presence of community shops). This factor alone will augment average rural affluence by an amount equivalent to 17 percent of per capita consumption expenditure.

3.38 Cross-sectional analysis of income can only give an idea about the relative importance of various proximate factors that determine rural income. It also intuitively suggests the major areas of possible rural investment strategy. However, the rural sector does not persist in isolation from the rest of the economy. Some of the constraints to rural growth may lie elsewhere, that is in the non-rural part of the economy, which requires extending the analysis to a broader inter-sectoral framework where the choice of various development paths can result in very different outcomes for rural growth and poverty reduction.

[66] The quality of microfinance mediated through the Bank-SHG channel varies considerably across the states. See, Basu and Srivastava (2005).

Chapter 4: Strategies for Growth: Assessment of Options

A. Alternative Development Paths: Issues and Concerns

4.1 **Two extremes of the development debate are represented by the opposing views that attach different degrees of importance to mining and agriculture.** One view contends that the development of the mining sector can usher in a new decade of development in Jharkhand as the natural launching pad for growth acceleration and financing of broad-based social development. This view states that since the state has the largest share of mineral Gross Domestic Product (GDP) amongst all Indian states, it should capitalize on this strength, towards mitigating its weakness of crop agriculture that is almost totally dependent on rainfall. This focuses on potentially substantial fiscal gains, through mobilizing rents as mineral revenue, and spending the additional gains on rural and social development, thereby providing win-win approaches to both growth and equity.

4.2 **In contrast, the second view is that potential risks associated with the mining sector are high and that agriculture has shown great potential through impressive growth in recent years, contributing significantly to poverty reduction and human resource development.** This view recognizes the emerging evidence of high risks in unregulated development of the mining sector under relatively poor governance, apart from the risks of flouting social and environmental safeguards. Without a capital development fund supported by mineral revenues, and exclusively earmarked for rural and social development, the prospects for more than off-setting compensation are uncertain as untargeted funds get used for less important purposes, besides encouraging corruption. All these can lead more to livelihoods destruction than creation. Hence, the natural launching pad is not all that natural after all, and agriculture provides a much safer option, given the adverse governance conditions.

4.3 **The present study suggests a third alternative for a state like Jharkhand, namely, achieving an inter-temporal balance between the two strategies.** While mining and broad-based industrial progress will lead growth over the medium to long-term and on to resource mobilization, it is the agricultural and rural sector, which needs to be continuously addressed in the short to medium term. This requires several things to move in tandem. *First*, there is a need to focus on institution building, especially those dealing with risks, risk-perception, and risk-mitigating measures, central to the growth and poverty reduction agenda. *Second*, there is the diagnostic analysis in Chapter 1 leading to a key two-sector message that is, increase in labor productivity in the agricultural and rural sector which has high employment, and increase in employment in the non-rural sectors, which has higher labor productivity, especially through development of SMEs. *Third*, each of the economic sectors should be able to grow to its long-term potential, including mining and mineral-based industries. However, efforts to "force in" development of a particular sector without addressing sector governance constraints can backfire in the context of a rather sharp rural-urban "dualism", and the socially and spatially polarized economy of Jharkhand.

B. Low Risk-Low Return: Can Subsistence Agriculture Lead the Way?

4.4 **During the period between 1993/94 and 2003/04, rural growth has been more pro-poor as compared to urban growth, and agricultural growth has been considerably higher than the all-India average (Chapter 1).** Two questions arise in this context: (i) What have been the sources of agricultural growth during this period; and (ii) Can modernizing subsistence agriculture lead the way for overall revitalization of the rural economy through linkage effects.

Opportunities for and Limits to Technological Progress in Crop Agriculture

4.5 **A considerable increase in food production over the past three decades was largely supported by rainfed agriculture.** The decade of the 1980s was largely one of stagnation in agricultural production, while improvement became pronounced from the early 1990s. Crop agriculture is largely restricted, however, to rice, which is cultivated mainly during the *kharif* (rainfed) season. The state has done well in increasing foodgrain production during the period 1973/74 to 2003/04 as reflected in higher growth rate (3.27 percent) than the national average (2.4 percent). Improvement in yields has significantly contributed to this increase (Table 4.1).

Table 4. 1: Annual Growth Rate in Area, Production and Yield of Principal Crops

(Percent)

	1983/84 to 1993/94			1993/94 to 2003/04			1973/74 to 2003/04		
Crops	**Area**	**Production**	**Yield**	**Area**	**Production**	**Yield**	**Area**	**Production**	**Yield**
Rice	-1.29	0.76	2.08	0.13	3.85	3.71	0.42	3.71	3.28
Wheat	-1.29	0.34	1.65	1.44	2.86	1.40	2.06	4.17	2.07
Maize	-2.38	2.14	4.63	4.11	4.19	0.08	1.19	2.34	1.14
Jowar	-5.59	-3.97	1.71	1.06	12.79	11.61	-1.94	4.09	6.15
Bajra	-5.18	-6.28	-1.16	-17.26	-0.71	19.99	-6.96	-1.75	5.59
Ragi	-4.44	-4.84	-0.42	-9.31	-8.60	0.79	-4.83	-4.21	0.65
Barley	-9.89	-6.70	3.54	8.04	11.61	3.31	-1.19	1.32	2.54
Foodgrains	-1.49	0.71	2.24	1.27	3.14	1.85	0.65	3.27	2.61
Sugar	-6.70	-4.46	2.40	7.18	2.92	-3.97	-0.54	-3.26	-2.74
Arhar	-2.72	0.00	2.80	12.90	7.68	-4.62	2.75	4.20	1.41
Ground Nut	-2.11	-2.84	-0.74	3.38	5.96	2.50	3.14	6.68	3.43
Sesame	0.20	-8.81	-8.99	-5.17	-4.29	0.93	-2.56	-2.28	0.28
Linseed	0.54	1.53	0.98	7.92	0.62	-6.76	2.66	1.66	-0.97
Niger seed	4.27	6.46	2.10	-13.16	-23.31	-11.69	-7.37	-9.83	-2.65

Source: Agriculture 2005- CMIE report.

4.6 **The yield level as well as cropping intensity are much lower than the national average for both rice and non-rice crops.** With largely untapped opportunity for winter cultivation, due to lack of irrigation facilities, the cropping intensity is low (114 percent compared to the national average of 134 percent). There is significant scope for area expansion, given the large share of fallow land (17 percent of the total cultivable land).

4.7 **The factors that contribute to agricultural growth are fertilizers, chemicals and seeds.** Over the last decade there has been tremendous growth in the use of fertilizer and seeds. Crop responsiveness to these inputs is, however, highly dependant on the availability of water, which is available only during the kharif (rainfed) season. So far, there has been negligible expansion of irrigation during the *rabi* (winter) and summer seasons. As a result, the crop sector in Jharkhand has been largely monocrop (that is, paddy) in nature.

4.8 **The major thrust for agricultural development has to come from the development of irrigation.** Given the insufficient rainfall, very low area under irrigation, poor productivity and drought conditions, water resources need to be developed urgently. The policy for developing water resources should include major, medium and minor irrigation prospects. Larger multipurpose projects would be very important in view of the power shortage. Increased power supply to agriculture will help to reduce

the cost of irrigation. Minor irrigation could be developed, along the lines of the Gram Bhagirathi Yojana. Participatory irrigation management should be emphasized in all these schemes. Groundwater exploitation should be done through dug well and shallow tubewells and should not be more than the recharge. The current move to enact legislation in this regard is a step in the right direction.

4.9 **However, there is scope for bringing additional area under cultivation, which is currently fallow.** The strategy should be to develop agriculture by focusing on increasing the production of non-rice foodgrains, horticultural production as well as animal husbandry and fisheries. Increase in productivity of land under rice production is the key to crop diversification as productivity gains can release land for other food and cash crops. Moreover, an increase in rice productivity can lead to better acreage for producing high value-added crops.

4.10 **The state's conditions are well suited for horticultural production.** Productivity levels are high in crops such as onion, mango, litchi and guava, which should also be linked with market and infrastructure development such as cold storage facilities. One reason for poor agricultural income has been the absence of cash crops such as cotton and sugarcane (there is no sugar factory in the state). With the development of water resources, sugar cultivation can be experimented with in a few pockets. With judicious crop planning, different categories of land can be used for remunerative crop production. There is also potential for producing flowers, medicinal and aromatic plants. In the case of livestock products, emphasis should be to increase the production of milk, eggs and meat. Cross-bred cows and better availability of fodder can raise milk production. Piggery can be emphasized as there is high consumption of pork and excellent breeds are available. Food processing units including those for fruit and vegetable preservation, milk and meat preservation and processing minor forest produce would enable farmers to get better prices. The role of agencies such as ATMA and KVKs is important in developing effective farm plans while also ensuring adoption of appropriate technology to improve farm income and the marketing chain. These prospects are still at the initial stage of development and will require substantial technological and institutional development.

4.11 **To the extent that technological progress is dependent on the expansion of irrigated agriculture, especially during the winter season, agricultural growth prospects in the state will be modest.** Even if investment in irrigation schemes enables expansion of the acreage under irrigation to its potential, it will remain restricted to only 40 percent of the state's irrigable land.[67] This can be compared to 70-80 percent irrigable land in the neighboring regions of the erstwhile Bengal Presidency that is, Bihar, West Bengal, and Bangladesh where groundwater irrigation potential is huge.

4.12 Crop sector growth, even with full expansion of irrigation acreage every year would remain restricted to the trend growth rate of 3 percent per year and 4 percent per year for agriculture overall, taking the standard achieved in West Bengal and Bangladesh in the best possible agricultural growth scenario. If the state is realistically aiming at a 6 percent growth rate over the medium term, from the current trend of 4 percent per year, it will have to focus on sectors outside agriculture. With agricultural value-addition of only 22 percent, agriculture's direct contribution to the overall growth rate under the best possible scenario cannot exceed 15 percent; the remaining 85 percent would have to be generated in other sectors.

4.13 In view of the limitations to agricultural growth, the question that arises is whether the forestry sector can play a lead-sector role in the rural growth process.

Forestry as a Subsidiary Source of Employment and Growth

[67] World Bank/ Government of Bihar, Bihar Plateau Irrigation Project, 1994.

4.14 **The importance of the forestry sector in Jharkhand's economy can be judged both by its initial high share in total land and by its recent growth performance.** Land under forests, for instance, constitutes about 30 percent of total land, with wide district-wise variation, ranging from 9 percent in Dhanbad to 43-45 percent in Garhwa, Palamu and Hazribagh (Annex Table 4.1). Besides, during 1993-2003, while the overall share of agriculture and allied sectors has dropped from 23 percent to 17 percent the share of the forestry sector has doubled from 1.9 percent to 3.4 percent. The growth in the forestry sector accelerated, particularly after the emergence of the new state and was in the range of 15 percent per year, compared with 4 percent for other agricultural sub-sectors from 2001-03.

4.15 **Jharkhand's forest resources, which at present contribute to rural livelihoods on a subsistence level, could play a much bigger role in economic growth and poverty alleviation.** Forests not only cover about 30 percent of the land area but are dominated by economically valuable SAL species[68] *Shorea robusta*. Nearly half the forest area is at least partially degraded and the remaining forests face growing pressure from encroachment caused by chronic rural poverty. A majority of the forests, constituting 81 percent, is classified as protected. Forest productivity in the state is at present approximately half the national average despite excellent natural conditions for growth. This represents a significant opportunity to expand forest productivity and attain growth potential through investments and institutional arrangements.

4.16 **During the lean season, many people's livelihoods depend critically on forest products for subsistence or supplementary income.** The most destitute gather wood for sale. A major part of the wood that head loaders and bicycle loaders carry is meant for the urban markets. The degree of dependence on forests for subsistence or cash income varies from place to place and depends on the state of forests, access and presence or absence of other income- generation opportunities. Preliminary results from the recent Citizen's Report Card survey (PAF, 2004) suggested that in the 400 households surveyed, about 12 percent depend totally on the forest during times of unemployment. Also, the survey reported that most forest products are collected for personal use.[69] In all the six villages surveyed by the Tata Energy Research Institute (TERI), the results showed that fuel-wood, fodder and wooden poles were gathered for household use and construction. Estimates of fuel-wood collection ranged from 2 kg per household per day to 30 kg per household per day. This large range is due to the fact that some of these households sell fuel-wood in the market. At least 70 percent of fodder requirements come directly from the forest. The villagers also depend on poles from the forests for construction and maintenance of their houses. On an average a household extracts around 6-10 poles from the forest in a period of three years.

4.17 **Although public expenditure on forest resource development and management has been increasing in accordance with new priorities, this has not yielded the expected returns.** The annual budget for forestry programs from state and central sources is just under Rs. **2 billion** (less than 0.5 percent of GSDP), and represents a significant increase from the situation in undivided Bihar. Approximately half of this is meant for operational programs, with approximately 70 percent spent on forest management, mainly to establish plantations on degraded lands and in association with new community-based forest management approaches. While average expenditure (Rs. 407 per ha) is nearly 26 percent higher than the national average, the average revenue per ha of forest cover is significantly lower (Rs. 71 per ha) than in many other states and one-third the national average.

4.18 **Hence, while there is ample scope for increasing efficiency in the forestry sector, given that it contributes only 4-7 percent of employment, and has low productivity (approximately half the all-India level), it cannot be the lead sector for rural growth.** On the other hand, its critical importance

[68] *Shorea* species are valued for timber and for pole production.

[69] It is important to note that, due to security reasons, forest villages in Naxalite areas were not included in the survey. These may have a higher dependence on forests.

for the rural poor and the tribal population lies in providing access to ecological reserves in times of crisis to supplement food consumption.

Potential of Rural Non-Farm Sectors

4.19 The rural Jharkhand baseline survey household data suggests that approximately 48 percent of the workers are engaged in non-agricultural wage labor. The performance of the rural non-farm (RNF) sector, that is, self-employment and wage-employment in service, trade, transport, and rural manufacturing depends on two factors in this sector: (i) whether labor productivity is higher; and (ii) whether employment is poverty-reducing as distinguished from poverty-sharing.[70]

4.20 The rate of return in rural non-farm self-employment is higher compared to the casual wage labor engaged in both agricultural and non-agricultural sectors.[71] The route to upward mobility for agricultural wage labor lies not in the transition to casual non-farm wage-employment but in non-farm self-employment and salaried wage-employment. Further, analysis based on the NSS round shows that the transport business, formal service, trade, and rural artisan activities lead to significant increases in income compared to unskilled construction or agricultural labor. A switch to informal service and mining activities appears to be poverty driven with no clear welfare enhancing effects (Annex Table 3.1).

4.21 Although there are activities within the RNF sector, which could provide upward mobility for rural unskilled wage labor, this has no automatic entry. On the supply side, such movement is restricted by limited access to financial capital and vocational skills (for self-employment) and by poor access to human capital (for salaried wage-employment). In addition, there are demand-constraints to the expansion of the RNF sector as well. Growth in RNF activities is likely to be constrained by slow crop-sector growth, especially for un-irrigated areas. When the scope for agricultural employment is limited, survival compulsions can lead to search for employment in non-farm and non-agricultural sectors, as reflected in the high proportion of non-farm sector employment in the rural labor force. Such mass exodus of farm labor to non-farm jobs takes place at the lower end of the productivity scale and represents an act of desperation, that is, push effects rather than the pull effects of a growing and dynamic sector, at present.

[70] Osmani (1990).
[71] Table 3.3; Chapter 3.

C. Medium to Long-Term Potential of the Mining Sector

4.22 **Jharkhand, with its favorable geology and rich mineral endowment, can benefit by strengthening its institutional capacity to manage and regulate the development and commercial operation of the minerals sector**. Mining and metallurgical downstream activities in the state account for more than 14.6 percent of GSDP; 7.4 percent of India's mineral production in 2002/03 or Rs. 53.3 billion,[72] mainly from coal (91.2 percent), iron ore (6.3 percent) and bauxite (0.6 percent); and contribute Rs. 8 billion per annum or about 15 percent of Jharkhand's total fiscal receipts, second only to sales tax (Table 4.2). Consequently, any growth strategy should include sustainable development of the minerals sector as one of its key components.

Table 4. 2: Mineral Resources of Jharkhand
(Tonnes million)

	Reserves			Production (2002/03)		
	Jharkhand	India	Proportion (percent)	Jharkhand	India	Proportion (percent)
Iron Ore	3,758	10,052	37.4	13.7	97.0	14.1
Coal	691	2,111	32.7	78.6	341.2	23.0
Copper (contained)	112	441	25.4	0.02	0.78	2.6
Bauxite	70	2,462	2.8	1.2	9.8	11.8
Fireclay	50	518	9.7	0.05	0.46	10.9
Limestone	511	75,678	0.7	2.3	145.6	1.6

High Investment and Growth Potential

4.23 **Many developing countries in Latin America and Africa have taken advantage of the increasingly global mining industry that competes for the limited amounts of exploration and development capital, seeking the best risk-adjusted returns**. Over the last 20-30 years these countries have successfully reformed their mining sectors and attracted significant private investment flows, technology and modern management to develop their natural resources. In Latin America, Chile, Peru, Mexico and Argentina have introduced the most comprehensive reforms that have produced impressive results (Table 4.3). In Africa, Ghana, Tanzania and Madagascar have followed suit with similar results. While some established Asian mining countries like Indonesia have experienced declining fortunes, PNG, Mongolia and China have enacted reforms and enjoy considerable investment interest.

Table 4. 3: Impact of Selective Mineral Sector Reforms
(US$ million)

Country	Level of Exploration		Industrial Output		Exports	
	Before	After	Before	After	Before	After
Argentina	<3	150	340	1,310	70	700
Chile	15	250	2,400	7,500	2,300	6,900
Peru	10	200	2,000	3,900	1,900	3,600[73]
Tanzania	<1	35	53	350	53	350
Ghana	<1	n.a.	125	700	125	650
Mali	<1	30	<1	242	<1	230

Source: Bank Staff estimates

[72] Central Statistical Organization.
[73] The figure for Peru includes the value of Antamina, which began production in 2001 valued at about US$ 650 million.

4.24 **International experience also suggests that not all mining-based growth strategies will be growth enhancing in the long run. The positive impact of mining reforms on growth and poverty depends mostly on competent institutions to manage mineral wealth, taking the unique characteristics of the sector into account.** Indeed, sustainability of a mining-based growth strategy will depend greatly on how the dividends from such growth are managed, as indicated by the classic example of Nigeria's boom and bust story.[74] Successful mining laws need to be designed to: (i) minimize corruption and rent-seeking, as well as the duration of the permit process, by eliminating discretion in the implementation of the law; (ii) reduce speculation and encourage active exploration, by the use of properly structured license fees, which also serve to finance an independent and efficient mining cadastre; and (iii) provide environmental and social safeguards and rehabilitation. These successful reforms are built around the key principles of ease of access strictly on a "first come first serve" basis; standard conditions applicable to all investments; transparent access to minerals, through a modern and open mining cadastre and title registry; free transferability of mining title; simple financial maintenance requirements; competitive royalty obligations; and proper environmental management, rehabilitation and community development.

Mineral-Dependent Development: The Risks of "Resource Curse" Scenario

4.25 **In a survey of international mining companies,[75] India, including Jharkhand, ranks extremely poorly as an exploration destination because mining development faces major regulatory, environmental and social obstacles.** The cornerstone of reforms in this field generally includes re-defining the role of the state; easy and transparent access to minerals under standard conditions for all investors; security of mining title; freedom to operate on a commercial basis; competitive and stable fiscal provisions; comprehensive social and environmental protection and mitigating measures and benefit sharing mechanisms, which address most if not all externalities of mineral production, and are used to convert minerals to productive assets, thereby catalyzing broader regional development.

4.26 **There are already some signs of developing the "resource curse" syndrome.** The state is yet to develop appropriate institutional, regulatory and safeguard conditions for embarking on a fast-paced mineral-based growth strategy. In fact, without having such institutional safeguards in place, an unregulated mineral-based growth strategy can bring in more risks than rewards. This can be judged by several examples. One relates to the manner in which institutional safeguards of local communities directly affected by mining activities are being addressed, that is the equity aspect of mining-based growth. Other examples relate to the institutional hurdles that genuine private investors face in undertaking new investments in the sector, that is, the efficiency aspect of mining-based growth.

4.27 **Mining localities often get inadequate attention in the rush for mineral development and end up suffering in economic, social and environmental terms**. One would expect that with large benefits of mineral development accruing to societies, the localities affected by mining could be compensated fully with the other sections of society still reaping large net "producers' surplus". However, in practice, this is often not the case. While many factors

[74] Sala-i-Martin and Subramanian (2005); Kanbur and Venables (2005).
[75] Annual Survey of Mining Companies 2003/4, Fraser Institute.

contribute to that outcome, one crucial factor is "governance", broadly including the institutional and policy framework for the use of mineral income and for compensating the localities adversely affected.

4.28 **Jharkhand's experience over the last fifty years bears no exception to the general rule of poor performance of resource-rich developing countries.** In spite of a significant increase in the extraction of minerals, the per capita income of the state remained one of the lowest in the country and localities affected by mining faced acute poverty and environmental problems. Once again, the institutional framework for utilizing the revenues from mineral development, and for addressing the welfare of the localities affected, has been an important contributory factor. The challenge before policy makers in Jharkhand is to break away from past practices and utilize the mineral wealth for truly broad-based development.

4.29 **The existing legal framework that regulates land for mineral leases is weak and leaves ample scope for unfair losses to those whose land is acquired.** The legal opinion in GoJ appears to be that the Land Acquisition Act (LAA) of 1894, which allows acquisition of land for "public purposes", is the preferred route for acquiring land for mining leases. However, this route is fraught with practical difficulties. First, it needs to be seen whether commercial and profit-making activities like mining can be classified as "public purpose". The LAA stipulates that notifications for acquisition of land should be published in two regional newspapers, at least one of which should be published in the local language, and also put up at a public place in the local area, besides being published in the official gazette. However, in practice, the information does not reach the local community in time for them to raise objections within the specified time limit.

4.30 **The LAA does not provide any real space to the affected parties for protest, negotiations or even discussion.** Compensation is determined on the basis of the market value of land taken as the average of three cases of recent land transactions in the area and based on the value on the date of first notification, rather than the date of taking possession that may be years later. As the recorded market price is often a fraction of the actual price, and land prices rise quickly over time, the current procedures amount to heavy and unfair losses to the local community whose land is thus acquired.

4.31 **These kinds of inequities are no longer acceptable to the people adversely affected by leases for mining development.** Jharkhand has a long history of agitation politics and the recent events in Orissa concerning mining leases have further sharpened the political consciousness to the need for making land acquisition legally sound and politically acceptable.

4.32 **There are also institutional and legal barriers to attracting private investment into the sector.** The most important bottleneck stems from the archaic mode of state control. Thus, although the central government has opened the mineral sector to private investors,[76] easy and transparent access to minerals remains difficult. State control and operation of coal resources, the major output of the sector, and to a lesser extent the operation of the Jharkhand State Mineral Development Corporation, creates ambiguities regarding the role of the government, and conflict of interest, thereby restricting transition of the state's role from owner or operator to manager or regulator of the minerals sector. Coal, which is the predominant mineral produced in the state, is reserved for development[77] by the central government under

[76] With the exception of the 11 atomic minerals and coal.

[77] As part of the overall liberalization of the sector, certain coal blocks have been made available to private developers of captive collieries whose production is tied to specific steel and power projects.

the provisions of the Coal Bearing Areas (Acquisition & Development) Act of 1957. Some 80 million tons of coal are produced in Jharkhand by Coal India Limited's (CILs) three wholly-owned subsidiaries, National Colliers Limited (NCL), Bhartiya Coking Coal Limited (BCCL) and, to a lesser extent, Eastern Coalfields Limited (ECL). In the absence of central budget subsidies, they are ill equipped to expand capacity to meet the rapidly rising demand for coal in India. The proposed amendment to the act, which remains stranded in the Economic Standing Committee of the Lok Sabha, would allow for unrestricted access to the coal sector by private investors. This amendment would also transform the role of government, create much needed competition within the sector, increase productive capacity to meet the needs of the economy and accelerate growth within the state.

4.33 **Despite the limitations in the mineral policy of Jharkhand, private investors have shown great interest in investment in the mineral sector in the state.** This has, in part, been stimulated by the prospect of the large increase in demand for steel and cement due to the construction boom in India and other parts of Asia. The new atmosphere is reflected in the current spate of MoUs between the GoJ and some major Indian and foreign corporate giants. It is therefore highly plausible that the pace of mineral development in the state over the next ten years will be dramatically different from that in the last ten years. The total value of investments promised by the MoUs is over Rs. 1 trillion which is several times the current GSDP of the state.

4.34 **However, making mineral development environmentally sustainable and socially just is a challenge.** Mitigation of the environmental impacts of mining and progressive rehabilitation of the affected surface area is fundamental to modern sustainable mining development and retention of the "social license to operate" implicitly conveyed by the impacted local communities. Enforcement of environmental impact assessments and agreed environmental management plans is an essential part of this social compact, especially in Jharkhand with its high population density and intense competition for rural agricultural land. Reputable mining companies recognize this and now take their environmental stewardship seriously by adopting good environmental practices. This is reinforced by balanced environmental legislation, adequately funded mine closure plans, and major international financial institutions who condition their loans in adherence to the World Bank environmental guidelines.

4.35 **Significant reforms are required at both the central and state levels and include amendment of the national legal, regulatory and fiscal legislations that govern mining activity at the state level, improving the permit process, and strengthening the institutional and administrative capacity of public mining institutions.** These are discussed in greater detail in Annex 4.1. Besides, promotion of mining-led growth in Jharkhand will be greatly facilitated by: (i) providing guidelines for environmental impact assessments, environmental management plans and community development plans; (ii) a consultation framework to facilitate rational land-use planning, community development and sharing of benefits between local and indigenous communities; and (iii) the dual use of designated forest areas with progressive rehabilitation and afforestation.

Developing Mines within Indigenous Communities

4.36 Working with indigenous communities requires "beginning with the end in mind", conveying to them that mining is a temporary land-use, that lands will be reclaimed and reverted to other uses, and that sustainability comes from leaving lasting human capital and infrastructure after mine closure. Human capital is best fostered through education, either job-

training directly for the mine or the many innovative enterprises that may be needed locally to support the operation. Beginning with the end in mind also relies heavily on leaving shared infrastructure that can revert to other uses. In forest-based economies, this may include roads and bridges that connect larger markets, clean water systems, and the technology and capacity to monitor spatial and temporal changes of other natural resources. The Whitehorse Mining Initiative in Canada (Box 4.1) is a good example of prior informed consultation with tribal communities to agree on a framework for development of mineral resources in tribal areas for the benefit of the community, the state and the investors.

4.37 In the event that an indigenous community needs to be resettled, some important actions should be anticipated. Information through consultation is the key aspect. If residents do not clearly understand their predicament and the options available to them, they will not move. An inventory of homes and structures, regardless of titles, will complement an analysis of customary land-use in the surrounding forest. Good community consultation yields accurate information about household composition, alternative housing and compensation or relocation preferences. Criteria and norms for compensation, based on values in nearby rural locations must be established. Land swaps for replacement of agricultural or forestlands can often be arranged with the mine, taking advantage of aggressive reclamation and reforestation programs.

4.38 It is essential that options be provided to allow individuals to choose between alternatives based on cash and/or replacement of buildings and land. Those affected would want to know the level of compensation provided and how real the proposed options are. This requires offering reasonable alternatives, compensating at reasonable rates and also for interim hardships of moving. Two general principles follow: (i) indigenous communities must have an active role in the planning process and not have the planning pre-determined for them; and (ii) no option be offered to the community for which funds or lands are not available.

4.39 Finally, indigenous communities share an intense relationship with their land. The mine should prepare enough land to re-settle the community on either new lands or reclaimed mine lands, ensuring that swaps are acceptable. With the company actively engaged in the resettlement process, shared interest in success is more likely as companies do not thrive in tattered communities.

Box 4. 1: Whitehorse Mining Initiative (WMI)

An Early Implementation of Sustainable Mining Supported by Political and Community Consensus. The Whitehorse Mining Initiative Leadership Council Accord was created in response to varied and complex challenges facing mining in Canada, including a fractured dialogue with Canada's indigenous people. Against this background, the industry sought support within a non-adversarial framework to develop a new strategic vision for

mineral development for the 21st century. The WMI started in 1992 with a multi-stakeholder consultation during which the nation's mining ministers agreed to co-sponsor the process, and mining industry representatives, senior government officials, labor unions, indigenous peoples, and the environmental community agreed to participate.

The initiative culminated into an 18-month program to develop a strategic vision for a viable mining industry, and preserve diverse ecosystems, which was built upon shared opportunities with indigenous peoples. The accord improves regulatory efficiency and ensures the participation of indigenous peoples in all aspects of mining. Central to the accord is sound environmental stewardship, recognition and respect for indigenous people's treaty rights. Informed land-use decisions are supported by mineral resource assessments undertaken by the government.

The process leading up to the accord relied on a diverse set of stakeholders addressing finance and taxation, environment, land access, and workforce, workplace and community issues. Each working group produced guiding principles and objectives that included over 150 recommendations. Implementation proceeded in stages marked by progress reports from the national and regional levels.

The WMI represents an early implementation of sustainable mining supported by political and community consensus. Through effective consultation and inclusion of indigenous peoples in the mine development process, Community Mining Agreements, also called Impact Benefit Agreements, have become commonplace in Canada.

Community Mining Agreements. These agreements establish the formal relationship between a mine and its local communities. These development agreements increasingly adopt the principles of sustainable development and thus bring to a project many of the responses needed for mining in the twenty-first century. The benefits of these agreements are distributed across several stakeholders including an empowered community, companies benefiting from a consultative process that defines rational expectations, and host governments who view such agreements as buy-in at the local level. Civil society, including non-governmental organizations, plays an active role in ongoing monitoring of the project, capacity building and ensuring good stewardship of resource lands.

Community mining agreements with indigenous peoples serve to:

(i) address the adverse effects of commercial mining activities on local communities and their environments, culture, way of life, natural environment, and economic activity;

(ii) ensure that the communities share in the benefits of mining from which they might otherwise suffer only negative impacts and receive nothing or only token benefits.

Community mining agreements increasingly lead to the development of downstream economic development plans in which mining serves as an engine of growth for training, formal education, and the creation of SMEs. Successful agreements begin with incorporation of end-in-mind strategies that enable transition of the community to a diversity of other economic activities well before mine closure.

Source: Bank staff

4.40 While governance problems in the mineral sector are serious, GoJ is fully aware of them and is actively developing an institutional and policy framework for tackling them. Specifically, GoJ is at an advanced stage of preparing its policy for mineral development and resettlement and rehabilitation of communities adversely affected by mineral development and related industrial activities. While the policy is still under preparation, the overall approach puts emphasis on "partnership" between the affected communities, the state and the mining companies. The objective is to offer terms, which should in principle enable voluntary surrender of land by the affected communities.

D. The Middle Option: Sustainable and Inclusive Growth

4.41 The foregoing review of the strengths and weaknesses of the two options suggest a middle course, namely, an inter-temporal balance between the two strategies. While mining and broad-based industrial activity will lead growth over the medium to long-term and enable resource mobilization, it is the agricultural and rural sector which needs to be addressed in the short to medium term through increased investments in irrigation, rural connectivity, health, education, and non-farm rural activities. The secondary and tertiary sectors, which account for more than 50 percent of GSDP, could become the principal source of growth over the medium to long term with appropriate institutional interventions. Besides meeting the prerequisites of development, this option requires an investor-friendly climate to counter the negative developmental image of the state while encouraging private investment through decentralization and de-regulation. Labor absorption must increase in non-rural sectors, to the extent technologically permissible, especially through the development of SMEs.

Fostering Labor-Intensive Manufacturing and Services

4.42 **The pattern of growth in Jharkhand suggests that there is significant potential for dividends from a broad-based industrial growth strategy.** Unlike the fast-growing states where the services sector continues to boom,[78] Jharkhand's successes are predicated on industrial growth clusters and on dynamic Indian industry leaders, in both the private and public sectors.[79] While the development of mineral-based industries can catapult the state on a high growth trajectory across the medium to long term, excessive reliance on this sector as a source of growth has risks as seen earlier.

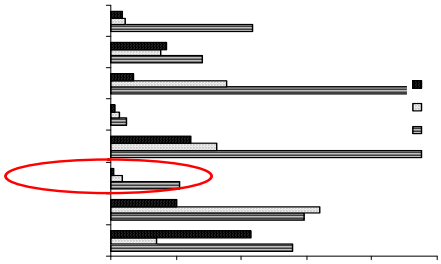
4.43 **A more balanced strategy over the medium to long term would require broadening of the manufacturing base beyond mineral-based industries**. Jharkhand's excellent manufacturing base for small-scale industries (SSI) covering auto, steel plant, rubber components, recycling and downstream industries, among others,[80] vindicates the claim of many experts that many more industrial clusters could be established.[81] Spin-offs in terms of ancillary industries from mega-projects and industrial clusters such as Jamshedpur and Bokaro are evident. Entrants like Timken and Cummins have also helped introduce best practices, including state-of-the-art operating procedures, in the local production environment. Lastly, the existence of good quality educational and technical institutions is an additional advantage to the state.[82]

4.44 Despite the promises, actual investments in Jharkhand are not impressive (Figure 4.1). The Investment Climate Survey (ICS) suggests a need for substantial improvement in the investment climate (IC) which, in comparison to other states is deficient, and does not provide adequate incentive to investors, from both within Jharkhand and outside.

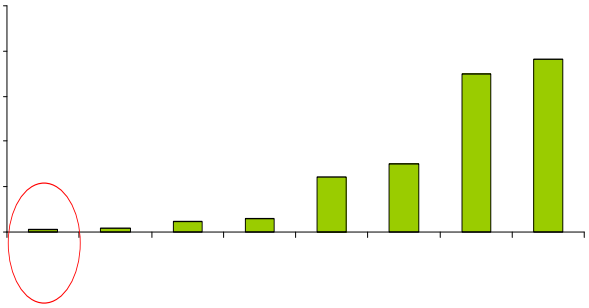
[78] The performance of manufacturing sector is a mixed bag; the agriculture sector is lagging across India, including Jharkhand. For details, see India, DPR, Report No. 34580-IN, World Bank, 2006.
[79] They include Damodar Valley Corporation, Power Grid Corporation, Tenughat, Patratu and Bokaro thermal power stations, Bokaro Steel, Tata Steel, ACC, Central Coalfields Ltd., TELCO, Hindustan Copper Ltd., ICI, Indo-Asahi, Bharat Refractories, Dabur, Lafarge, Timken, Tata Cummins etc to name a few.
[80] Other key SSIs include: heat treatment, forgings, metal presses, castings, rubber components, machine shops, and fabrication units.
[81] Particularly in and around Bokaro, Jamshedpur, Hazaribagh, Ranchi and Dhanbad, using raw materials in the form of by-products of industries located in these districts.
[82] For instance, Birla Institutes of Technology at Mesra and Ranchi, Indian School of Mines at Dhanbad, XLRI at Jamshedpur, and Central Mine Planning and Design Institute Limited.

Figure 4. 1: Proposed and Actual Investments[83] in Various States

Proposed Investments

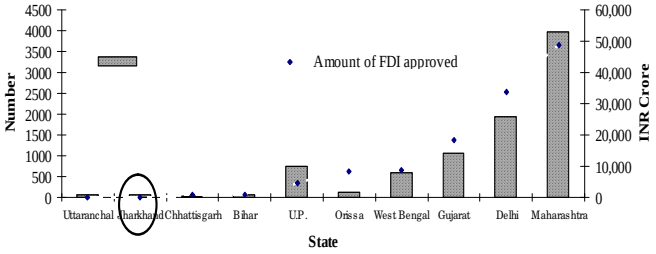


Actual Investments (2003-05)

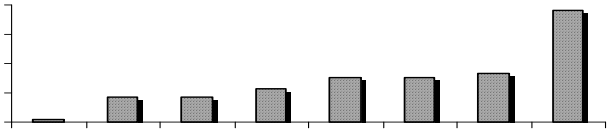


Constraints to Investment

4.45 Identification of the bottlenecks that deter investment and productivity growth in SMEs and large enterprises in Jharkhand is based on a combination of primary and secondary sources. [84]



4.46 **Central to the problems in Jharkhand's investment climate are poor governance and weak institutions.** As a first step, the ICS asked the private entrepreneurs to rank the IC bottlenecks faced by them, in order of importance. Figure 4.3 refers to the percentage of firms that have identified a given factor as a major or severe obstacle. The results are not surprising. Firm managers ranked the lack of adequate and affordable infrastructure, particularly electricity and transport, as the most critical IC bottleneck, followed by high tax rates, and regulations, corruption and access to finance as the third. Complexities in



[83] Actual investments have been measured in terms of IEMs implemented. Data for 2005 is till March, 2005.

[84] An investment climate survey (ICS) of firms in Jharkhand was conducted in 2005/06, as part of the All India ICS, to identify the main factors constraining the growth of Jharkhand's firms. This survey included around 120 firms in Jharkhand, across 4 industrial clusters (Ranchi, Jamshedpur, Dhanbad and Bokaro). The sectors included: metals and mining, wood and wood products, garments, leather and leather products, machine tools and machinery and parts, mineral processing, paper and paper products, auto components, electronics and electrical appliances, chemicals and plastics, and agro and food processing. Additionally, in-depth interviews of *potential* investors in the area of metals and mining industry, ITES and agro-processing were conducted to understand constraints faced by out-of-state investors. The choice of the sectors was driven by GoJ who considers these as priority sectors.

the tax administration regime, skill shortages and problems in accessing land were also ranked as major impediments.

4.47 An analysis in 2004 and 2005 ranked Jharkhand 19th out of 20 states, slightly ahead of Bihar based on eight parameters, namely investment scenario, budget and prosperity, infrastructure, health, education, law and order, agriculture and the size of the consumer market).[85] It is noteworthy that the two other newly-created states, Chhattisgarh and Uttaranchal, have higher rankings than Jharkhand.

4.48 An analysis[86] of constraints perceived by potential investors in Jharkhand has further highlighted its key IC bottlenecks. These include access to land, infrastructure, regulation and governance, law and order, labor laws, access to finance, and the negative "image" of Jharkhand. Most of these issues resonate with those raised by firms operating in other states in India. However, the prioritization and severity of the IC constraints in Jharkhand differs.

Infrastructural Access for Manufacturing Growth

4.49 **Availability and quality of infrastructure is a critical constraint faced by firms operating in Jharkhand and equally for potential investors not choosing the state as an investment destination.** Table 4.4 reveals that Jharkhand lags behind the India average on most infrastructure availability indicators, such as road length per 100 sq km, power availability per capita, net irrigated area and tele-density.

Table 4. 4: Infrastructure Indicators 2004

Infrastructure Measures	Jharkhand	All -India
Road Length per 100 sq km	21.4 km	74.2 km
Power Availability Per Capita	225 kwh	450 kwh
Irrigated Area (percent)	10.2	40
Tele-Density (percent)	3.0	10

Source: Annual Plan 2005-06, GoJ.

4.50 The picture is starker in relative terms. Among 28 states, Jharkhand ranks 22nd on the aggregate infrastructure index which covers the power, communications, and transportation sectors[87] . Competing states such as Chhattisgarh, Orissa, and West Bengal rank 17th, 14th, and 11th respectively (Table 4.5). Sectorally, the state is ranked 21st in communications infrastructure, 18th in power and 14th in transport infrastructure.

4.51 The findings of the survey of firms in Jharkhand, as part of the Third Investment Climate Survey -2005/06, corroborate this as well. On average, firms in Jharkhand face over 38 power outages a month compared to less than 18 per month for the rest of India[88] (Figure 4.4). Further,

[85] "State of the States: India's Best and Worst States," *India Today*, 2004 and "The Best States to Live In," *India Today*, 2005.

[86] Inputs for this note are based largely on primary data from a "potential investors" survey, combined with field interviews of existing firms and other stakeholders. Preliminary results from sector policy notes on IT, agro-processing (tomato processing); and NTFPs (choice governed by client demand) have also been incorporated. Lastly, the note has relied on secondary publications and data.

[87] An aggregate "infrastructure index" is defined as the degree of cost disability that states suffer in providing public services because of their underdeveloped infrastructure. Based on this definition, the top-ranked state is one that has the least cost disability, because its infrastructure is best developed. The index is developed on the basis of "enabling (network capacity) factors" and "network use factors" for three sectors: power, communications, and transportation. Enabling factors determine the usability of the network, while network use factors reflect the extent of infrastructure use. The enabling factors and network use variables differ from sector to sector. The index is based on a study of state infrastructure (Mohanty) carried out at the behest of the Twelfth Finance Commission to make a broad and systematic comparison of infrastructure development in various states.

[88] ICS 2003-04, as discussed earlier.

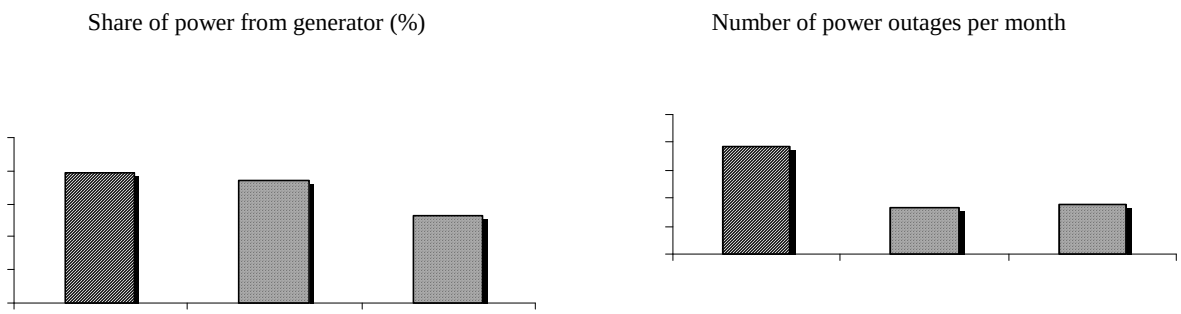
over 39 percent of the electricity needs of firms in Jharkhand are met through their own captive generation versus 27 percent for the rest of India.

Table 4. 5: Infrastructure Index: Ranking of Indian States

HIGH
Goa, Maharashtra, Punjab
HIGHER- MIDDLE
Gujarat, Haryana, Kerala, Tamil Nadu
MIDDLE
AP, Karnataka
LOWER-MIDDLE
Himachal Pradesh, MP, Orissa, UP, Uttaranchal, West Bengal
LOW
Arunachal Pradesh, Manipur, Meghalaya, Jharkhand, Mizoram, Nagaland, Assam, Chhattisgarh, Sikkim, Tripura, J&K, Bihar, Rajasthan

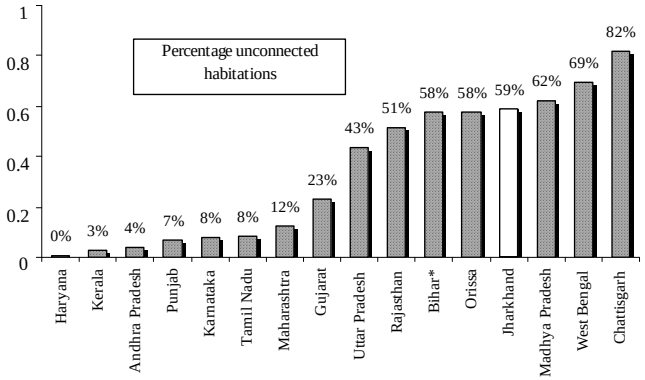
Source: "Study on State Infrastructure," by Nirmal Mohanty, Report to the Twelfth Finance Commission, Government of India. Note: An aggregate "infrastructure index", is defined as the degree of cost disability that states suffer in providing public services because of their underdeveloped infrastructure.

Figure 4. 4: Burden Imposed by Inadequate and Unreliable Power Supply



4.52 **Similarly, on the road network, Jharkhand fares poorly when compared with most other states in India** (Figure 4.5).[89]

Figure 4. 5: Inter-state Comparison of Road Networks



Source: www.pmgsy.nic.in (2004-05).

Access to land

4.53 **Private sector investors face several legal, policy, regulatory, process and institutional constraints in land acquisition.** These cause inordinate delays in land acquisition, thereby discouraging potential investors.[90] Each of the issues is discussed in greater detail below.

- *Policies and laws related to changes in designated use of tribal and forestland*: The GoJ does not have a well-defined land policy. There is lack of clarity in land zoning or designation for specific uses, as city and regional master plans are either not available or need to be redesigned. In many cases, the small size of land holdings makes it difficult to obtain continuous tracts of land. Lastly, the lack of clear and consistent guidelines on valuation norms paves the way for informal side-payments.

- *Lack of clarity of title, ownership and tenure*: Irrespective of whether land is owned by the state government or by private owners, it takes a very long time to obtain a clear title deed as land records are poorly maintained. In many instances, land revenue receipts are often not enough to ascertain clear title and various informal means are employed to ascertain whether the land title is clear. In addition, land is usually obtained on a leasehold basis for 30 years, a time period not always considered sufficient by lenders for using the land as collateral.

- *High transaction costs of buying and selling land*: The need for clearances from both the district collector's office and the revenue department often leads to delays and wastage of investor resources. Bureaucratic hurdles also provide an opportunity for rent seeking behavior. High stamp duties and registration charges create further distortions by way of reducing declared transaction values and corresponding revenue to the state. Stamp duty and registration charges in Jharkhand (6-8 percent) are comparable with other states in the country but are higher in comparison with other Asian developing countries. Aside from stamp duties, there is an additional service charge of about 10 percent levied for land transactions on the private sector even if the land is acquired by the private sector outside industrial areas.

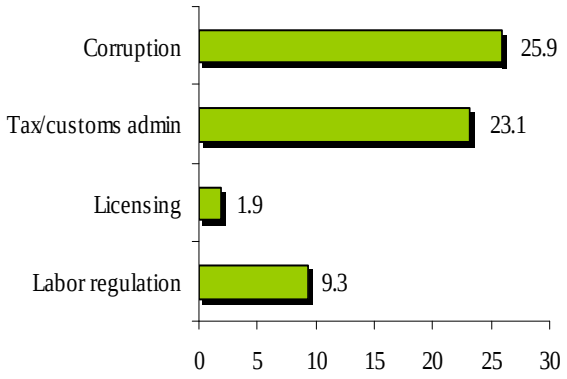
Governance and Business Regulation

[89] The findings of the survey of firms in Jharkhand (as part of the Third Investment Climate Survey -2005/06).

[90] In-state firms, mainly SMEs, surveyed did not rank this issue as highly as out-of-state investors did. This is so because projects from out-of-state investors are usually larger, having larger land requirements and is likelier in sectors such as mining in which Jharkhand has significant comparative advantage. But this also requires more complex approvals and is associated with socio-political and economic issues: tribal land rights and location of mining land in designated forest areas.

4.54 An overview of regulatory issues regarding business entry and quality of governance in Jharkhand, referring specifically to general governance, including law and order and corruption is provided here. Regulations and corruption are ranked in the top three constraints that firms face (Figure 4.6). Interviews with potential investors have highlighted governance, perceived or experienced, as one of the principal constraints, possibly even more than that felt by in-state firms. Within regulations, corruption, and tax and custom administration have been identified as greater hindrances (Figure 4.6).

Figure 4. 6: Percent of Jharkhand Firms Identifying Regulations as Severe or Very Severe



Source: Staff estimates based on ICS 2005-06.

4.55 **Both entry and exit regulations are a deterrent to private investment**. Across India, it takes a long time to register a business as firms are required to seek several permits and clearances both at the central and state level. A number of states have set up a "single window" system for the large number of clearances required to be obtained at the state level. In Jharkhand too business entry regulation compliance is required in several areas and from multiple state government bodies, but each of these has to be separately obtained. Table 4.6 provides a brief review of the clearances required in Jharkhand. It is seen that business entry regulation compliance is required in several areas and from multiple state government bodies.

Table 4. 6: Business Entry Regulation Compliance

Clearances required	Department responsible
Allotment of Land/Acquisition of Land/Change of Land use	Industries Department, GoJ and District Collector
Approval of Building Plan	Industrial Area Development Authority and Local Bodies
Release of Power Connection and Consent for Setting up Captive Power Plant	Jharkhand State Electricity Board
Release of Water Supply	State Water Supply Board and Industrial Area Authority
Registration as a Factory	Chief Inspector of Factories
Sales Tax Registration	Revenue Department, GoJ
Registration under Trade Union Act	Labor Department, GoJ
Registration under Shops and Establishments Act	Labor Department, GoJ
Registration under Industrial Disputes Act	Labor Department, GoJ
Registration under Minimum Wages Act/State Employee Insurance Act	Labor Department, GoJ

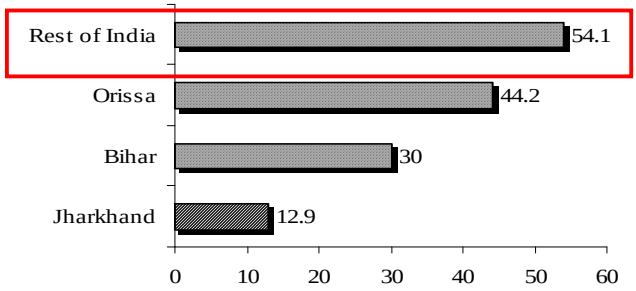
Source: IMaCS Research

4.56 Exit regulation for the private sector in India concerns both bankruptcy procedures that govern disposal and restructuring of assets as well as labor laws governing severance. Most of these issues are within the purview of the central government except for retrenchment. At present, exit barriers arise out of the provisions of the Industrial Disputes Act[91] and the Sick Industries Companies Act.[92] The Industrial

[91] Need to seek state permission for closure of units employing more than 100 persons.
[92] Winding-up tasks are to be performed by the courts and revival has to be assigned to BIFR, which is a long and complex process.

Disputes (Amendment) Bill, 2002, proposes to increase the limit from 100 employees to 1,000 employees, for units to seek government permission for closure of units or further retrenchment of workers.

Figure 4. 7: Access to Credit in Jharkhand



Source: Staff estimates based on ICS 2005/06.

Access to Business Finance

4.57 ***Access to finance remains another key constraint, particularly for small-scale units.*** Access to adequate and timely finance on competitive terms is a problem for SMEs across India, and was identified by the firm-level survey as a key bottleneck to growth and productivity. Problems in credit access are attributable to a combination of factors rooted in: (i) weaknesses in the legal framework for loan recovery, bankruptcy, and contract enforcement, together with inefficiencies in the court system, with the latter largely accounting for inter-state variations in the time and cost of loan recovery and bankruptcy; (ii) institutional weaknesses, such as the absence of good credit appraisal and risk management and monitoring tools in banks that increase transaction costs in dealing with SMEs; (iii) the absence of reliable credit information on SMEs; and (iv) lack of sufficient market credibility in the SME sector. It is difficult for lenders to assess risk premiums properly, creating differences in the perceived versus real risk profiles of SMEs and resulting in untapped lending opportunities to SMEs. These issues are largely outside the purview of the state government; the central government, on the other hand, can play an important role in improving the policy, regulatory and legal framework to support more efficient financial market functioning. [93]

4.58 **However, the problem of access to finance for entrepreneurs appears more severe for Jharkhand's firms than those in most other major states**. The ICS 2005/06 survey reveals that far fewer firms in Jharkhand had active bank credit lines as compared to firms in other states (Figure 4.7). As an additional indicator of the level of access to finance for firms based in Jharkhand, the per capita credit to deposit ratio is considerably lower in Jharkhand than in states like Maharashtra, Tamil Nadu, Karnataka and AP, the all-India average and even some of the other "lagging states" like UP, Rajasthan and MP.

4.59 As seen from the results of the survey, Jharkhand's IC is deficient compared to other states in India and will require substantial improvement. Moreover, the IC does not provide adequate leeway to investors, both from within Jharkhand and outside it to invest in the state. In order to realize its full potential, the GoJ is framing a new industrial policy,[94] aimed at creating an investor-friendly regulatory

[93] Key measures by the central government would include: (i) legislative changes in mortgage registration to make the process more customer friendly; (ii) simplification of the legal framework for collateral enforcement and loan recovery by introducing alternate, out-of-court, methods of dispute resolution; (iii) establishing a bankruptcy framework that would facilitate the easy exit of small firms, given their relatively high mortality rate. Recent estimates show that it is entirely common for bankruptcy proceedings in India to take more than two years, and over 60 percent of liquidation cases before the High Courts have been in process for more than ten years. Not surprisingly, when looking at the share of firms that go bankrupt, India has a much lower share (0.04 percent) than other emerging markets, such as Thailand. This may be changed, once the recently enacted amendments to the Companies Act are put into effect; this will provide a new framework for the liquidation of firms outside the court process.

[94] A Committee under the chairmanship of the development commissioner is being notified for drafting the new industrial policy. The 2001 Industrial Policy expires next year in March. The government has not been able to fully deliver on the last policy as it was considered "unrealistic" due to its emphasis on providing fiscal incentives as opposed to creating an enabling environment for private sector growth.

environment, combined with effective institutional arrangements. An improvement in the IC is likely to have wide-ranging positive externalities and an economy-wide impact in terms of growth and social development that is not just limited to the private sector development. What follows is a brief assessment of the state's strategy and performance till the present for promoting broad-based growth. The next section suggests specific policy and regulatory options and recommendations for each of the IC constraints highlighted here.

4.60 A cursory review of GoJ's progress in its ongoing reforms, as articulated in the Industrial Policy 2001, reveals that it lacks strategic focus, and the "thrust" sectors identified by the policy are far too broad, including almost every economic activity. More importantly, on most aspects, implementation of the industrial policy has been slow and ineffective.[95] Some reform momentum was recently built since the state's chief minister initiated the process for expediting the proposed investments (MoUs) into actual investments. The focus, nonetheless, seems to be on the larger projects, with facilitation of SMEs remaining on the back burner.

Improving Access to Quality Infrastructure Requires

- Formulating an infrastructure development policy, creation of an infrastructural development board or corporation and an enabling act along the lines of the Andhra Pradesh Infrastructure Development Enabling Act would facilitate private investment in infrastructure.
- Improving and modernizing Ranchi airport in consultation with the Airports Authority of India and in line with the present GoI policy.
- Creating a state road development corporation with the mandate of developing state and district roads and connectivity to the National Highway Authority of India (NHAI) road stretches.
- Assigning clear responsibilities for different parts of the transport network and different activities along the recently passed Jharkhand Highways Bill, awaiting the governor's consent, along functional lines.[96]
- Developing an Inland Container Depot (ICD) or dry port where all customs formalities can be completed for both imports and exports, and which can provide direct connectivity to Kolkata and Haldia ports.

Power Sector Aspects

- Commercial performance: regularizing financial reporting and internal controls, and developing business turnaround strategies for each company.
- Restructuring: Operationalizing the restructuring, including: (i) competitive recruitment of managers; (ii) development of human resources in the accounting and audit functions;

[95] For example, the following measures mentioned in the policy five years ago still remain to be acted upon: IIDB has not been constituted; Jharkhand Industrial Infrastructure Development Corporation Ltd. (JIIDC) has not yet been formed and only the Memorandum of Association has been formulated while one of its mandates is to create, develop and maintain infrastructure facilities for systematic growth of industrial units in Jharkhand; and the legislation underpinning the establishment of the single window system was considered but has presently been put on hold.

[96] The core highway network can be formally assigned to a semi-autonomous State Highway Authority and the core rural road network to the existing SRRDA. Over time, in line with the 73rd amendment in the Constitution, the rural road network would need to be gradually transferred to district-level road agencies as their capacities increase. For the larger cities, transport authorities may be required to integrate the various elements of a sustainable urban transport regime.

(iii) new financial management systems; (iv) establishment of commercial transactions between the new companies; and (v) separate licensing and tariff regulation for each new company.

- ③ Corporate governance: Increasing representation of independent non-executive directors on the boards of power companies and reduction of cross-directorships.
- ③ Subsidy: Undertaking as a first step a valuation of subsidy flows and their effects, including an analysis of the distribution of the benefits of power subsidy. Develop an institutional mechanism to work out cross indebtedness. Design a targeted, efficient, subsidy mechanism for BPL households.
- ③ Creating opportunities for new lower-cost entrants to provide power generation and electric service in rural areas: these should include (i) notification of areas as de-regulated for the purposes of rural electricity supply in accordance with the provisions of the Electricity Act; (ii) implementation of rural electricity franchises; (iii) policy for the development of private green-field power plants; (iv) development of rules for open access to the transmission network as required by the Electricity Act; and (v) issue of second distribution licenses by JSERC**.**

Improving Access to Land

- ③ Computerizing and updating all land records.
- ③ Creating an industrial land acquisition and facilitation agency for development and management of industrial parks in the state.
- ③ Creating a land bank for industrial purposes, at least for urban areas.
- ③ Developing industrial parks and SEZs, with well-developed infrastructure.
- ③ Offering land identification services to investors.

Improving Governance and Business Regulation

- ③ Setting up a single window clearance facility empowered by legislation and able to act in coordination with district authorities.
- ③ Making the process of approvals transparent by setting standards and timeframes for issuing clearances, with provisions for deemed approval if such clearances are not obtained within declared timeframes.
- ③ The Contract Labor (Regulation and Abolition) Act to be eligible for amendment at the state level, as in AP, in order to allow contract labor to be employed in non-core activities, as also in core activities subject to certain conditions, by a business organization.
- ③ Enabling easy exit options for industries, Jharkhand can consider adopting the amendment to the Industrial Disputes Act in line with the proposed central bill amendment.
- ③ Improving the law and order situation in the state, strengthening the capacity of the industries department, introduction of VAT and a transparent mining policy are other important steps to improve overall business regulation in Jharkhand.

Improving Access to Finance

While a number of policy recommendations concerning access to finance are dealt with at the center, particularly with regard to the policy, regulatory and institutional framework for SME financing, several enabling policies at the state level can create a more conducive environment

for market-based financing of SMEs by the formal financial sector. Some of the medium to long-term actions could involve:

- ③ Improving the credit evaluation and risk management skills of banks and other financing institutions to improve lending practices. This will involve building institutional capacity to reduce transaction costs, reduce and manage risks related to SME lending. A risk sharing facility to accelerate commercial bank lending to SMEs could be explored wherein the facility could provide partial credit guarantees for commercial bank loans to SMEs.
- ③ Improving credit information on SMEs, both positive and negative, through assistance to commercial banks and financial institutions, to verify and collate historic data on SMEs.
- ③ Addressing the problem of collaterals through improving and updating land and property records, which currently impede the use of land as collateral, and promoting the use of collateral substitutes.
- ③ Strengthening business development services and market linkage programs for SMEs thereby helping SMEs improve profitability and competitiveness, and become more credit-worthy.

The Way Forward

4.61 It is thus seen that while the development of the agricultural sector cannot by itself be the driving force for Jharkhand, it remains vitally important for growth and employment generation in the medium term. Although the mining sector has huge potential for growth over the long term, it has high risks that need to be carefully managed. The solution lies somewhere in between, with the crux of the overall strategy aimed at reducing risks associated with growth, especially in an economy with high levels of poverty and inequality. Building institutions, increasing the productivity of labor in agriculture and employment in the non-farm sectors through development of SMEs, is a possible way forward in the short to medium term. A balanced strategy would call for broadening the manufacturing base beyond mineral-based industries and establishing forward and backward linkages leading to employment generation. To promote sustained mining development, a strong governance framework and institutional capacity is essential for mitigating social or environmental impact.

Chapter 5: Promoting Social Inclusiveness for Effective Citizenship

5.1 Social inclusiveness is an end in itself and a powerful tool for effective citizenship. Inclusiveness can be fostered through several routes.

5.2 *First*, health, nutrition, and education are important ingredients of "human capital", a critical input in the production process and long-term growth acceleration. Health and nutrition are also important risk mitigating measures. However, their social significance goes beyond their economic relevance. In a society divided by caste, religion, and ethnicity, equal opportunity of access to "primary goods"[97] such as health, nutrition, and education can create the basis for social mobility and social cohesion.

5.3 *Second*, expanding the reach of social protection schemes engenders security, and establishes the legitimacy of the new state, because it cares about the poorest and this goes beyond its importance as a vulnerability reducing measure.

5.4 *Third*, social inclusiveness has additional importance in Jharkhand where tribals constitute a significant minority (28 percent of the total population). For the sustenance of democracy, effective citizenship must be ensured for the tribal population, which has been historically left out of the development process and remains the most disadvantaged. This cannot be done through economic and social service delivery programs alone as these continue the perception that the tribals merely receive handouts, and are not empowered citizens realizing their rights.

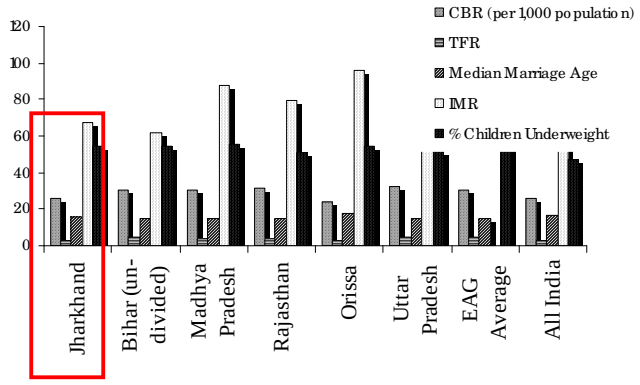
5.5 Mainstreaming the tribal population requires their civic and political empowerment (recognizing their civic as well as traditional rights), integral to economic growth projects and social service delivery programs. There is no single "best way" to attain these rights. These can be addressed through bonding that is forging horizontal links among themselves through social movements; bridging or promoting linkages between them and pro-tribal local elites; and advocacy and lobbying at the local, block, district, state, and national level.

A. Reach of Priority Health Services

[97] Rawls (1971).

Adverse Initial Health Conditions

Figure 5. 1: Initial Comparison of Key Health Outcome 1998/99



Source: Estimated from NFHS-II, 1998/99.

5.6 **Jharkhand's initial health status indicators are unfavorable as compared with the all-India average and the major Indian states.** This can be measured by both health outcome and health service indicators.

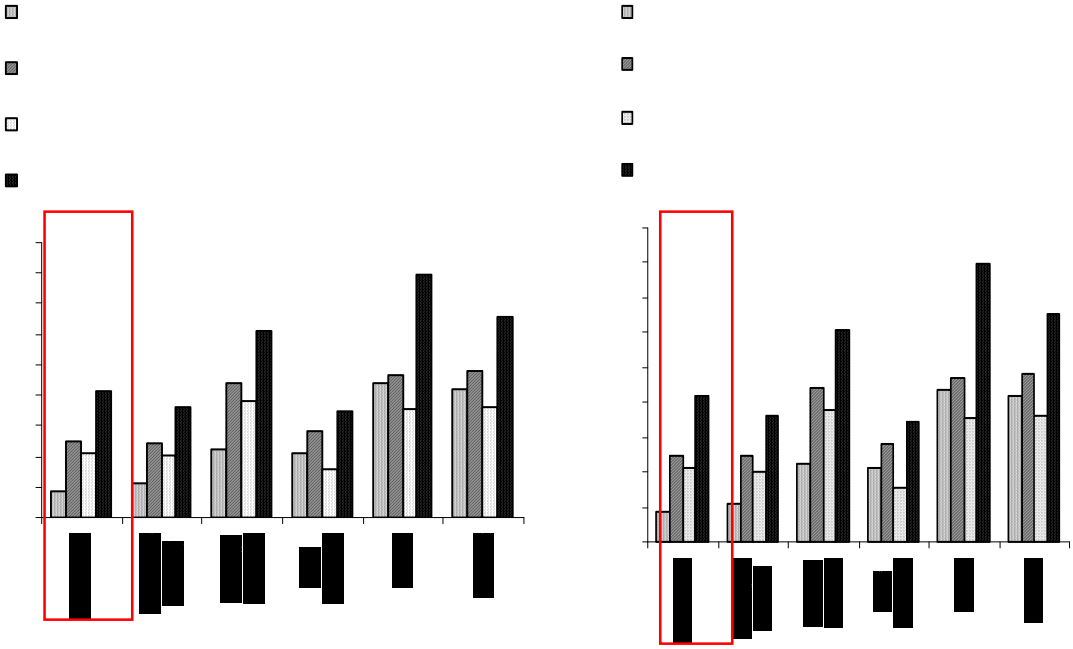
5.7 **The limited sample size of Jharkhand in the National Family Health Survey (NFHS)-II data poses serious problem in estimating some of the health outcome indicators.** Two examples illustrate this. Total Fertility Rate (TFR), a measure of reproductive health, appears to be lower than the all-India average (2.8 versus 3.2), and much lower than that observed for Bihar, Orissa, MP, UP and Rajasthan (Figure 5.1). The pattern of TFR is consistent with the relatively low Infant Mortality Rate (IMR) in Jharkhand (67 as against 96 in Orissa, 88 in MP, 83 in UP and 79 in Rajasthan).[98] However, the level of TFR and IMR may be underestimated, given the small size of bifurcated NFHS-II sample of undivided Bihar. Input-based indicators may provide a more realistic assessment. In fact, the prevalence rate of contraception among married women in Jharkhand is about half the all-India average (25 percent vs. 48 percent), which contradicts the reverse trend for TFR noted above. Similarly, the proportion of children with full vaccination is assessed at an abysmal 9 percent compared with the all-India average of 42 percent--suggesting a pattern that is inconsistent with the relative prevalence of IMR. As in other states in the country with a similar level of infant mortality, neo-natal deaths comprise a large proportion of total infant deaths. In Jharkhand it is estimated that about 60 percent of all infant deaths occur in the first week after birth.

5.8 **For most health service indicators relating to maternal and child health care, Jharkhand has adverse initial figures vis-à-vis the all-India average and other states.** The proportion of institutional deliveries was a low 14 percent, presence of skilled birth attendants 17 percent, and proportion of women who received at least one ANC contact just 42 percent. These are close to coverage levels in undivided Bihar, but much lower than the all-India average (Figure 5.2.).

Figure 5. 2: Initial Comparison of Health Service Indicators

Indicator 1 Indicator 2

[98] Various studies on cross-country, cross- state, and cross-district data for developing countries indicate the statistically significant negative relationship between the level of TFR and IMR (for instance, Murthi *et al*, 1995 for evidence on India).



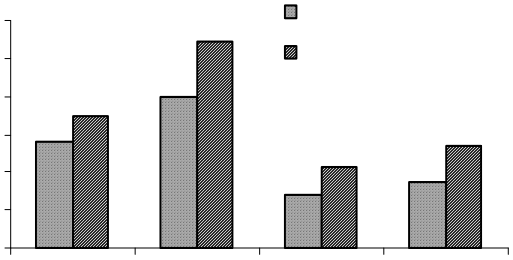
5.11 **Jharkhand had a very high initial burden of communicable diseases.** This relates to TB, malaria and other vector-borne diseases. At the time of formation of the new state, TB afflicted nearly 57,000 persons every year, of which almost one-fourth died. Frequent outbreaks of malaria were common in most rural districts of the state.

Recent Progress in Priority Health Service

[99] The NFHS-III round for 2005/06 shows that the matched figure for child malnutrition has actually *deteriorated* to 59% in recent years.
[100] Health Policy, GoJ.

5.12 **Notwithstanding the adverse beginning, Jharkhand has made steady progress in nearly all priority health service indicators.** Coverage of reproductive and child health (RCH) related services improved during the period 1999-2003 (Figure 5.3). The proportion of safe deliveries increased by 9.7 percent, proportion of institutional deliveries by 7.2 percent, and proportion of pregnant women receiving at least one ANC check-up by 14.4 percent.

Figure 5. 3: Changes in Key RCH Service Indicators 1999-03



5.13 **Impressive progress has been made in child vaccination.** The newly instituted "catch up rounds" (since 2002/03) has led to a dramatic improvement in child immunization, and vitamin A and iron supplementation. The UNICEF has recently verified that immunization coverage is now almost 50 percent compared to 9 percent in 1998/99. This is the most rapid rise in coverage recorded in India for a five-year period.[101]

5.14 **Considerable progress has also been made in expansion of services related to communicable diseases such as TB and, to a lesser extent, malaria.** The Revised National TB Control Program (RNTCP) was introduced in 2000 with support from the Global Fund for AIDS, TB and Malaria (GFATM) in three districts. By end 2004 it had expanded to all 22 districts. In the third quarter of 2004/05, Jharkhand achieved an impressive treatment success rate of close to 90 percent, compared to the national average of 85 percent. Case detection rate, however, is still only 52 percent, well below the national average of 70 percent. Even today malaria is still endemic with frequent outbreaks. More than half of the reported malaria cases are due to Plasmodium Falciparum and are often fatal. Confirmed and suspected deaths from malaria totaled 61 in 2004.[102]

5.15 **The state has made remarkable progress in reducing the prevalence of leprosy.** In 2001, leprosy prevalence was three times the national average at 10.9 per 10,000. By 2005, it had dropped to 2.69 per 10,000. Multi-drug treatment was introduced in undivided Bihar in 1994/95, and special leprosy campaigns undertaken in 1998, 2000, 2001, 2002, and 2004 to detect new leprosy cases. Another effective strategy was the integration of the vertical leprosy program into the routine health delivery system.[103]

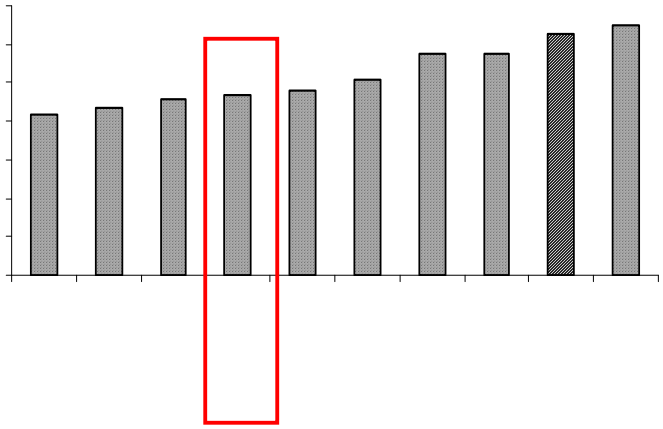
Factors Influencing Progress in Priority Health Service

[101] The NFHS-III round for 2005/06 also shows considerable improvement in full immunization, though less dramatic than the above claim, the matched figure being 35%.
[102] GoI, RNTCP Quarterly Performance Report.
[103] The proportion of blood slides collected in the state relative to population increased from 3.6 percent in 2000 to 4.78 percent in 2004. However, it still remains below the nationally recommended minimum Annual Blood Slides Examined (ABER) of 6 percent. The Slide Positive Rate (SPR) fluctuated over the four- year period between 11- 17 percent.

5.16 **Progress in expanding the reach of priority health services has been brought about by both supply and demand factors.** Among the supply-side factors, increased budgetary allocations for health, reorientation within the health budget towards priority services, tapping synergies among different health and anti-poverty programs, and partnership with NGOs in implementing the programs are some of the important steps. Among the demand-side factors are the development of region and culture-specific behavior change communication strategy, enhanced access to media, and favorable effects through greater health awareness in recent years by expanding basic education across gender and social groups. However, not all these factors have been fully tapped for expanding the reach of health services in Jharkhand. However, even partial implementation of these initiatives is likely to result in significant improvements against the backdrop of highly adverse initial health conditions.

5.17 **Jharkhand has one of the highest *budgeted* shares for health expenditures in the country**. Over the period 2001/02–2003/04 public health expenditure fluctuated from Rs.377 to Rs.440 crore per year, translating to an average per capita spend of Rs.150 in nominal terms. This was slightly more than Orissa's level during the same period (Rs.134) but less than the average per capita spend in 15 major Indian states (Rs.174).[104] The situation has changed considerably since 2003/04 with the public health budget (plan plus non-plan) increasing from Rs.377 crore to Rs.666 crore in 2004/05, and projected to increase further to Rs.839 crore. As a result of these increases, public health allocations in 2005/06 accounted for 6.25 percent of the revenue budget in Jharkhand, compared to an average 4.71 percent of revenue budget on health in 15 other major states, as estimated for 2004/05 (Figure 5.4). This indicates the high budgetary priority being accorded to health. Much of the increased spending went on paying salaries of the newly contracted 1,500 doctors (80 percent) and on drugs (5 percent).[105]

Figure 5. 4: Share of Health in Revenue Budget



5.18 **However, lack of institutional capacity impedes implementation.** The shortfall in "realized" as against the "budgeted" amount is an important indicator of the governance capacity of the state (Chapter 1). Much of the increase in health budget allocations are "on paper" with little implications for explaining the outcomes. In the preceding year, the Jharkhand health department could spend only 68 percent of the funds allotted. This was due largely to delays

[104] See, Dave Sen and Berman (2005).

[105] Fund flows through the budget represent only a part of total health spending. Much of the funding under the national programs (e.g. RCH, TB, malaria and HIV/AIDS) flows through the Jharkhand Health Society. Once these off-budget funds are included, resources available for health in 2005/06 rise by 25 percent. In 2004/05, total health spending represented 1.15 percent of the Net State Domestic Product.

caused by an over centralized financial system, lack of willingness to take responsibility for spending and issuance of utilization certificates, and finally, inability of the health system to take on new activities. Unless these constraints are addressed and there is an improvement in the capacity to access and utilize budgeted funds in a timely manner, the full benefits of the recent increase in the health budget will not be realized. Moreover, increased allocation of budgetary resources for health is only one precondition for improved health outcomes.

5.19 **One of the most important factors underlying the recent improvements in priority health service indicators is related to the adoption of a campaign style approach, termed "the catch-up round"**. Initiated in December 2004, this approach was quite effective in rapidly improving immunization and nutritional outcomes. Comprising a two-month long activity, it galvanizes support and involvement of all district-level personnel (including anganwadi workers, Auxiliary Nurse Midwives (ANMs), doctors etc), local NGOs, international donors, and the community to provide a core package of priority health services. To begin with, the package included routine immunization, micro-nutrient supplementation (including vitamin A and iron folate tablets) and de-worming. The package of interventions was expanded during the last "catch-up round" to also include TB and malaria screening, and ANC. This approach has been successful in dramatically improving select key service indicators over a very short period. Another key strategy has been to increase availability of doctors and paramedical workers.

5.20 **Public-private partnerships, especially with NGOs, have been one of the key ingredients of recent improvement.** The state government has several ongoing partnerships with private providers including: (i) contracting NGOs under RCH and the HIV/AIDS program largely for social mobilization efforts and delivering targeted interventions to high-risk groups; (ii) social marketing for family planning and other commodities for the delivery of subsidized family planning through private sector channels such as shops and retail pharmacists; (iii) contracting of health staff; and (iv) providing equipment and supplies to private facilities.

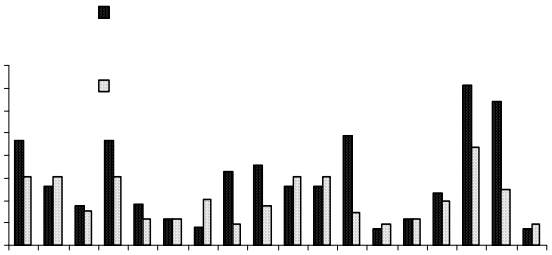
5.21 **Better planning and coordination among different actors also contributed to improved institutional performance in the health sector.** A new institution called the Jharkhand Health Society, registered in 2003, currently plays a vital role in supporting the department in policy development and planning, coordinating donor support to the sector, forging partnerships with NGOs and faith-based groups, design of innovative schemes, monitoring and evaluation and channeling funds.

Neglected Concerns for Social and Spatial Equity

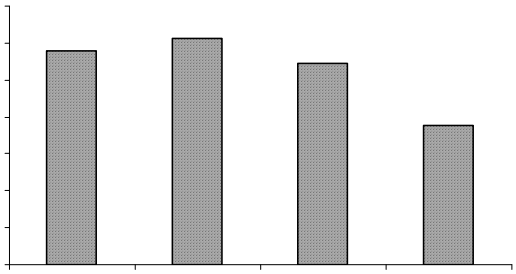
5.22 **The average progress discussed above masks the stark inequalities in health status that exist across districts, between different ethnic and social groups, and the poor and non-poor.** Hence, NFHS-II found the crude birth rate (CBR) varying from a high 36 per 1000 in Hazaribagh district to a low of 20 per 1000 in East Singhbhum. Such disparities are noticeable with respect to other indicators as well (Figure 5.5).

5.23 **One of the reasons behind the stark disparities in health outcomes is that the reach of most health service providers is limited to a few districts, excluding the remote areas where most of the socially disadvantaged groups reside.** This is true for the NGOs as well. A recent USAID study mapped the location of NGOs, their size and the type of health work that they undertake. Out of the 143 NGOs engaged in health care provision in the state, 80 percent are located in just 10 districts out of a total of 22 new districts. This is also confirmed by the second round of RCH data. The proportion of pregnant women receiving at least one ANC check-up is highest in Lohardaga (77 percent) and East Singbhum (75 percent), compared with only 35 percent in Godda and Deoghar. Even more striking differences are seen in the case of child vaccination. The proportion of children with full vaccination varies from as high as 44-47 percent in Ranchi and Lohardaga to as low as 6 percent in Godda, 10 percent in Deoghar, 14 percent in Dumka, and 18 percent in Sahibganj.

Figure 5. 5: Health Indicators



5.24 **Social disparity in health and nutritional indicators is equally striking.** The nutritional status of children from Scheduled Caste and Scheduled Tribe (SC/ST) groups was found to be much worse as compared to socially advantaged, groups (Figure 5.6). Sixty-one percent of children from ST groups were underweight, compared with 38 percent from non-SC/ST/backward groups.[106]



5.25 A recent econometric study carried out in the three newly created states, Jharkhand, Chhattisgarh and Uttaranchal, indicates the relevance of socio-economic characteristics in health care access.[107] The positive association between education of women and delivery illustrates the importance of social development through education for achieving 100 percent institutional deliveries. More importantly, the state-specific logistic models for Jharkhand showed that women belonging to SC, ST or lower economic strata tend to utilize lesser delivery care. Hence, the RCH program should address the needs of these women and create a conducive environment for them to utilize delivery care.

Concerns over the Quality of Health Care

5.26 **The quality of rural primary health care services seems to be inadequate.** The results of the Jharkhand User Satisfaction Survey, although restricted to primary health facilities, show the magnitude

[106] NFHS-II noted disparities on basis of living standards (as defined by household ownership of various assets): 78.6 percent of women with a low standard of living suffered iron-deficiency anemia compared to 57 percent of women with a high standard of living.
[107] Pandey et al (2005).

of the problem. Over 65 percent of respondents reported that they visit Primary Health Centers (PHCs) in the case of ailments; about half reported the availability of doctors at the PHC; and over 75 percent of the households prefer to get prenatal check-ups outside of the PHC, with private providers being the main alternative source. Though ANMs visited households in 56 percent of the cases surveyed, 52 percent of respondents who had been visited by ANMs felt the visits were infrequent and 42 percent felt that ANMs did not impart proper health care. Respondents who did not visit PHCs cited reasons such as distance, preference for private doctors or traditional healers, improper medical care, or non-availability of doctors.[108] Clearly, if the quality of PHC services is any indicator, it is likely to be even worse in the case of secondary and tertiary health care.

B. Achieving Health MDGs

5.27 **The GoJ has identified and prioritized interventions that address health MDGs within the health sector strategy.** These include services related to maternal and reproductive health care, child health, TB, malaria and other communicable diseases, and HIV/AIDS. The strategy of continuing with the "catch up" approach as an interim measure for scaling up provision of priority services, and at the same time building a sustainable routine health delivery system, is a sensible one. However, the manner in which the routine system is built up will determine how effectively priority interventions are scaled up.[109]

5.28 **Despite the recent progress towards health MDGs, the overall health sector performance is far from satisfactory. If Jharkhand maintains the current pace of improvement in health outcomes and coverage of priority services, it will not reach the health MDG targets.**[110] There are many impediments to attaining the health MDGs, with the key ones being poorly functioning and under-developed health systems, lack of public-private partnerships in the delivery of priority interventions, poor accountability of public health services, and the problem of overcoming the barriers of social exclusion for improved access to priority services.[111]

5.29 **The state needs to address the problem of poorly developed health systems. Building new institutions remains the biggest challenge.** While a new health directorate has recently been created, it still remains on paper. Staff is yet to be recruited. The directorate is to have one director-in-chief, and seven directors (one each for health, family welfare, medical education, training and research, planning and administration, AYUSH and vector-borne and infectious diseases). Once the directorate is up and running, the Jharkhand Health Society can function more effectively as a strategic policy and planning unit, as well as a forum for coordinating donor inputs and public private partnerships. The village health committee (VHC) is another new institution, which can potentially play an important role. Participation in local planning, supervision of Sahiyya activities and generating awareness of and demand for priority services will be among the responsibilities of the VHC.

5.30 **Other elements of the health system that need strengthening include: the drugs management system; the Health Management Information System (HMIS); and Human Resource Development and Management (HRD).** The RCH Program Implementation Plan (PIP) recognizes the

[108] The average distance of the respondent's resident from the PHC was about 3.8 km.

[109] Three new policies have been developed - a Health Policy, a Population and Reproductive and Child Health Policy, and a Drug Policy. In addition to these, a detailed Program Implementation Plan (PIP) for the second Reproductive and Child Health (RCH II) program has also been developed. Collectively, these documents provide strategic policy direction to the sector, map out priority health outcomes and outputs to be achieved, and outline specific interventions to achieve them, including institutional requirements.

[110] The child immunization target would be reached if the current pace of expansion was maintained; however the mode of delivery through "catch up rounds" is not a sustainable one.

[111] There are other barriers such as inadequate financial insurance to unanticipated health shocks, maximizing inter-sectoral impact on health, but arguably they can only be addressed effectively once these bottlenecks are removed.

need for an integrated and more useful health MIS that provides a complete picture of all activities at the PHC level. Planned HRD-related activities include development of job descriptions and introduction of performance-based management systems.

5.31 **Health services cannot be delivered by the public sector alone as the "public sector model of health delivery" faces significant challenges on two major counts.** *First*, due to under-funding, the network of public facilities has not been developed to fulfill GoI population-based norms in any Indian state. Where they do exist, their performance is sub-optimal because staff is unavailable, drugs are insufficient, equipment is not in place or not working, or facilities are poorly maintained. *Second*, in the absence of effective accountability mechanisms at the local level, there is a high incidence of absence of doctors in many states in India, with Jharkhand ranking third after Bihar and Tamil Nadu.[112]

5.32 **Poor accountability of public health services is reflected in the high rate of absenteeism among service providers and poor client satisfaction, indicating a serious failure in service delivery in the state that affects the quality of curative health services.** Such service delivery failures can be linked to a breakdown in the chain of accountability between the providers and clients, as well as the policy makers and providers.[113] As priority services are scaled up in Jharkhand, the government will need to address these accountability failures. In strengthening the chains of accountability, examples of other Asian countries may be instructive. These include greater use of performance-based incentives, decentralization and local supervision of health services, provision of vouchers and the use of contracts.

5.33 **Addressing the demand-side constraints is crucial for the success of health policy in Jharkhand.** These include costs (related to transportation, opportunity costs of lost work when seeking health care, unofficial fees etc), lack of knowledge and awareness of health needs and availability, and socio-cultural beliefs and practices. As noted earlier, there are wide disparities in health status and service coverage across districts and population groups in the state. The exclusion of particular groups such as STs is particularly striking. The health department has no systematic strategy for improving performance of lagging districts and population groups, such as SCs and STs. Some recognition is given to a special approach in tribal areas; however, this is not backed up by the concept of resources being allocated on the basis of need. There is a need for greater use of incentives for providers to serve target populations, as well as greater use of demand-side approaches, such as provision of vouchers for overcoming social exclusion.

C. Health Sector: The Way Forward

5.34 Recent health sector development in Jharkhand can benefit from the experience of other states and developing countries and international best practice. The GoJ seeks to develop public health infrastructure as per GoI population norms. The population-driven approach to planning infrastructure and staffing has not worked well over much of India. Other equally important criteria that need to be considered while planning infrastructure and staffing for Jharkhand relate to terrain, population density, presence of roads, availability of transportation, and doctors and health staff. The GoJ is also aggressively forging partnerships with private providers. This could result in a health system that comprises public finance and plural provision; in the present context, such a system would best meet the

[112] The fact that doctors' absence has little correlation with per capita income of the state shows that the problem with the public sector model of health delivery is much more deep rooted.

[113] Unlike the private market transaction when the seller or provider is directly responsible to the customer or client, in government the accountability between the client and provider is an indirect one intermediated by the government (World Bank, 2003).

state's health needs. The GoJ may consider implementing the following five-point approach, which will speed up the development of such a system and deliver health outcomes for the poor:

- **Prioritizing the use of new resources:** Even the recently doubled health budget falls far short of that required for universal provision of health care. Available resources would be best used on: (i) priority health services (PHS); (ii) focusing PHS on the poor; and (iii) extending financial protection to the poor against major illnesses.

- **Scaling up of the PHS delivery by public and private providers**. While priority interventions need to be financed from the public budget, they can be delivered either by public providers or by private providers or by a judicious mix of both**.** The main approach for promoting access to basic as well as specialist care in Jharkhand, as in the rest of India, has been to develop a network of government owned and staffed health facilities on the basis of GoI norms. So far there has been limited use of partnerships with the private sector as a strategy for enhancing access. For example, some NGOs have been contacted to provide care under several of the national health programs, such as RCH, TB and HIV/AIDS. Going forward, GoJ will need to: (i) agree on the contents of the PHS; (ii) review infrastructure, staff and drug norms most suited for delivering PHS; (iii) decide on comparative advantage of public and private provision for different priority services; (iv) conduct a survey to map out existing public and private providers; (v) contract private providers or develop public health services depending on comparative advantage; and (vi) undertake local planning for integrated provision of priority services. Social marketing of health goods (contraceptives, impregnated bed nets for malaria, etc.), social franchising and demand-side vouchers that can be redeemed at accredited private providers, are other attractive approaches for scaling up service delivery.

- **Developing and strengthening organizations and systems:** The GoJ has just begun the process of forming new institutions, such as the health directorate, Jharkhand Health Society, and the department for health and family welfare. Organizational structures and staffing should reflect the required roles and functions under a system of public financing and rural service provision. Human resources, planning and budgeting, financial management, quality assurance, monitoring, procurement and, finally, regulation and accreditation would all need strengthening.

- **Making greater use of demand-side approaches:** In addition to behavior change communication to overcome demand-side barriers, demand-side approaches, such as demand-side financing (DSF) should be used. DSF is defined as a means of transferring purchasing power to specified groups for the purchase of defined good and services. Purchasing power can be in the form of vouchers, stipends, grants or loans, and scholarships. Certain health services, such as maternal care, STI treatments are particularly suitable for DSF support. Additionally, strategies that give voice to and strengthen participation of excluded groups in health care planning and management would promote use of services by the poor.

- **Promoting local oversight of public health services:** Mechanisms to strengthen the chain of accountability between government providers and clients should be developed. Representation of the poor on village health committees is one way. While Panchayati Raj has yet to develop in Jharkhand, supervision and responsibility for public service

delivery by local elected bodies should be a long-term strategy for increasing accountability.

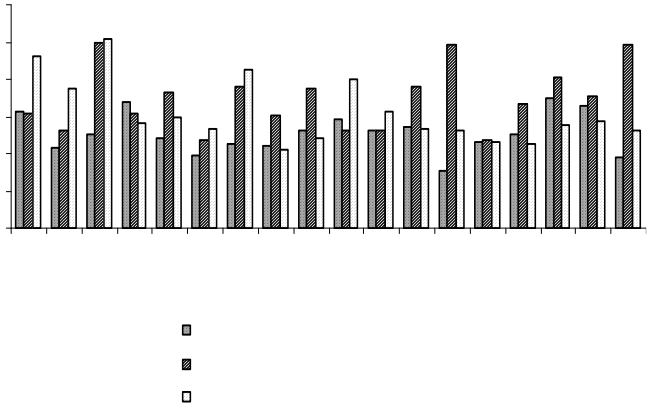
5.35 Once the medium-term strategic objectives of priority and basic health services are met, it would be easier to tackle the challenges of secondary and tertiary curative health care, especially hospitalized and specialized services. The state of the latter is extremely precarious with limited coverage of the rural poor by both public and private institutional health facilities. In particular, the high incidence of health shocks, including emergency and catastrophic diseases, is a major barrier to upward mobility of the rural poor. The public health system needs a threshold level of basic health infrastructure, human resources, management capacity, skill, and the experience to effectively administer activities across districts and blocks in both rural and urban areas, with greater or lesser accessibility. Only then will it become easier to design effective delivery mechanisms for the hospital-based and specialized curative services. Public-private partnership will enlarge further in that context, with greater attention to innovative health insurance products. Greater attention needs to be paid to the inter-sectoral impact on health status as well.

D. Expanding Access to Primary and Secondary Education

5.36 **As with health, the education scenario in Jharkhand was in an adversely affected condition at the time of bifurcation.** As per the census (2001) figures, the literacy rate of the state is the second lowest in the country (after Bihar) at 54.1 percent against the national average of 65.4 percent. With the male literacy rate at 67.9 percent and female literacy rate at 39.3 percent, the state has the second highest gender disparity rate in the country after Rajasthan. In rural areas, one-third of the men and two-thirds of the women cannot read or write. The literacy rates of the SC and ST population are as low as 37.6 percent and 40.7 percent respectively.

5.37 **Another important feature in the education sector was the high initial spatial disparity.** Literacy rates also varied across districts – with a low of 30 percent in Pakur district to a high of 69 percent in East Singhbhum (Figure 5.7). The task of improving educational outcomes was thus complicated by the fact that most children were first-time learners from households with illiterate parents. Given the low literacy rates, the average duration of schooling of an adult (aged above 14 years) as per the NSS 55th round stood at 4.25 years. The latter, although somewhat close to the all-India average of 4.5 years showed high differences across districts.

Figure 5. 7: Education Indicators



Recent Trends in Primary Education

5.38 **There has been an impressive increase in enrolment in the 6-14 year age-group.** The age-specific enrolment rates for the 6-11 year age-group improved from 56 percent in 1993/94 to 58 percent in 1999/2000 (as per the NSS data) and further to 95 percent in 2005 (as per the SSA Household census). Around 87.6 percent of the 11-14 year age-group children are also currently enrolled in schools. Around

18 percent of all children in the 6-14 year age-group are enrolled through the Education Guarantee Scheme (EGS)/AIE/ Bridge course or in some residential camps.[114]

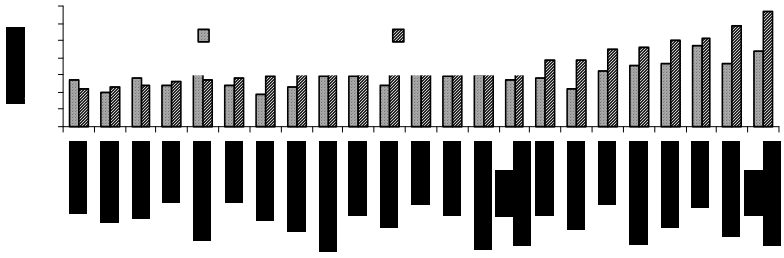
5.39 **Impressive increase in enrolment has been accompanied by greater gender and social equity.** The GPI for primary grades in the state is 0.98 and for upper primary, 0.97. Similarly, as far as the social equity in enrolment is concerned, SC/ST enrolment shares were close to their shares in respective age-group population. However, there is considerable variation in the GPI across different districts.

5.40 **Not withstanding progress in enrolment in primary education, a few concerns such as large numbers of out-of-school children, poor student attendance, low internal efficiency, and poor learning achievement stand out.** The number of out-of-school children in the state has declined slightly from 1.9 -1.8 million in the 6-10 year age- group, and from 0.64 - 0.2 million in the 11-13 year age group between the 2001 census and the 2005 SSA census. Of all out-of-school children in the 6-11 year age-group, 54 percent were girls, 28 percent belonged to SC category (as against their population share of 12 percent) and the rest belonged to the ST category. Districts with some of the lowest literacy figures, like Pakaur, Palamu, Godda, Giridih and Hazaribag, accounted for the maximum number of out-of -school children in the state.

5.41 **Student attendance is a key concern, as the attendance rate appears to have changed little over the recent years**. A few years ago only 43 percent of students in government schools and 68 percent in private schools attended classes regularly in primary schools.[115] Recent data shows that, on an average, only 58.4 percent of the children enrolled in Grades I-V and 58.5 percent of the children enrolled in Grade VI-VIII attend schools regularly.[116] Around 30 percent of the primary schools and 32 percent of the upper primary schools registered an average student attendance of less than 50 percent.

5.42 **With a very low completion rate, internal efficiency of schooling is a major issue in the state.** The primary completion rate was around 56 percent as per the NSS 55th round estimates. The transition rate from the primary to the upper primary stage was 78 percent for boys and 74 percent for girls. Overall, these figures varied from 50 percent for girls in Pakaur to 95 percent for boys in West Singhbhum and Chatra, highlighting wide spatial variations (Figure 5.8).

Figure 5. 8: Class I to Exit Class of Primary



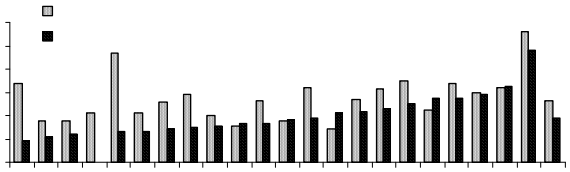
[114] These are, however, gross enrolment rates as distinguished from age-specific enrolment rates. Though most of the 6-14 year age- group children are enrolled in schools now, the enrolment rates in the primary stage is highly "grossed" given that many of these children are late entrants to the education system. On the other hand, those enrolled at the upper primary stage also included children who are above 14 years, due to the same reason or due to repetition.

[115] World Bank (2003).

[116] Annual Status of Education Report (ASER) 2005 by Pratham.

5.43 **The state has one of the poorest learning scores in the country.** As the District Information System for Education (DISE) data for 2003/04 reveals, less than one-fourth of the children in primary and less than one-fifth of the children in upper primary grades in the state pass their grades with more than 60 percent scores. However, the SSA Baseline Assessment Study shows that the average achievement level in Class II is 62 percent for language and 65 percent in arithmetic while in Class VII, it is 41 percent and 33 percent respectively for language and mathematics. The ASER 2005 by Pratham looks at learning achievements from a different point of view. It reveals that only 58 percent of children in the 7-14 year age-group could read a small paragraph with short sentences of standard I difficulty levels; and only 42 percent could read a story text. The arithmetic ability of Jharkhand's children is worse with 70 percent of children in the 7-14 age-group, and half of the children in the 11-14 age-group are unable to divide.

Figure 5. 9: Habitations without Primary School and Eligible to get Primary School



Factors Affecting Progress in Primary Education

5.44 Both the supply and demand-side factors have affected progress in primary education. Among the supply-side factors, the three key constraints are accessibility, quality of facility, and availability of teachers.

5.45 While access is improving, there is a need to expand it further to meet the growing demands of the states' diverse and dispersed child population. As per the Seventh All India Education Survey (AIES), 61 percent of the habitations in the state did not have primary schools within them (as against 47 percent for all India).[117] However, 77 percent of the habitations had access to schools within the prescribed norm of one km (compared to 87 percent for all India). Similarly, 61 percent of the habitations had an upper primary school facility within 3 km in the state in 2002 as against 78 percent for all India.[118] The latest survey conducted by the Jharkhand Education Project Council (JEPC) under the SSA program in 2005 suggests that the state still has around 8,000 habitations that are eligible for primary schools but do not have one (Figure 5.9). However, there are around 14,000 EGS and 9,500 Alternative Learning Centers (ALCs) and bridge courses in the state, which provide access to education facilities in those habitations that do not have primary schools. However, EGS and ALCs are basically transitional arrangements and, hence, unless converted to regular schools, are not sustainable substitutes for schools in the long run.

5.46 A key factor constraining primary education is the lack of minimum school-level facilities such as classrooms, blackboards, and teaching learning materials (TLMs). Addressing the lack of facilities could ensure some enabling conditions for students to attend schools regularly. Statistics from DISE show that around 45 percent of the schools have less than three rooms to conduct classes for five grades, 48 percent of the schools do not have toilets, and 72 percent of the schools do not have girls' toilets. The Annual Survey of Education Report (ASER) 2005 by Pratham looked at the facilities available in the government schools in the state and reported that a little less than 40 percent of the primary schools in the state do not have water facilities and approximately 10-12 percent have the facility, but not in usable condition.

[117] NCERT, September 2002.

[118] Within the state, habitations in East Singhbhum district have better access and coverage of both primary and upper primary schools.

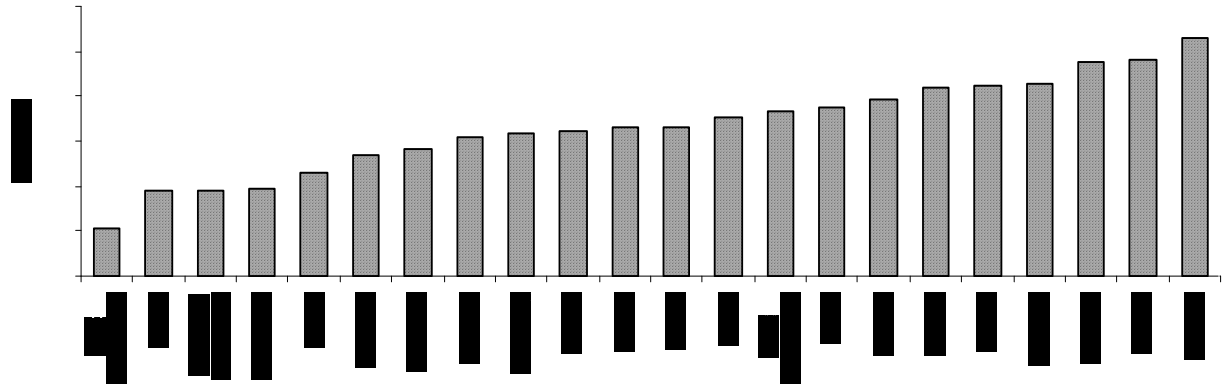
Similarly, around 70 percent of the primary schools have no toilet facilities while around one-tenth of the schools have the facility, but not in usable condition. The Pratham study shows that the share of schools where most (75 percent) children in standard V have textbooks is only around 40 percent.[119] However, more than 60 percent of primary schools and around 80 percent of upper primary schools have midday meal provision.

5.47 **Despite teacher shortages, most of the running costs were still on account of teachers, and hence both the numbers and training of teachers is a huge task. Moreover, the quality and availability of teachers together help build an efficient education system.** According to the DISE data, the average Pupil Teacher Ratio (PTR) was 52:1 in 2002/03 and worsened to 57:1 in 2003/04 as the pace of teacher recruitment remained below the growing rate of enrolments, and far below the required rate to
achieve the target PTR of 40:1. Around one-tenth of the primary government schools in Jharkhand are single-teacher schools, which makes multi-grade classrooms and teaching an inevitable necessity. However, in March 2005, only 68 percent of regular teacher vacancies could be filled due to lack of adequate funds.[120] Under these circumstances the state has resorted to the appointment of para-teachers to bridge the gap between teacher needs and availability. Approximately 15 percent of total estimated teacher vacancies consistent with the PTR norm have been filled through the hiring of para-teachers, but far more needs to be done.[121]

5.48 **In many states, including Jharkhand, not only is the availability of teachers, but their regular attendance and actual teaching, which is a problem.** One of the major issues related to teacher management in the state is the teacher absentee rates, which were as high as 39 percent.[122] There has been some improvement in recent years. The Pratham study points out that on average the share of primary school teachers attending schools was 76 percent while that of upper primary teachers was 75 percent. However, on average on a single day, only 50 percent of primary schools and a shocking 27.8 percent of upper primary schools had all teachers present.

[119] ASER 2005.
[120] The fiscal crunches faced by the state, where teachers' salaries constitute more than 95 percent of non-plan expenditure, do not facilitate expansion of the regular teachers' cadre.
[121] While the proportion of graduates and above is higher in the regular teacher cadre, para-teachers mostly consist of secondary school graduates. However, there is no evidence to show that there is any significant difference in the effectiveness of regular and para-teachers in terms of outcomes measured as learning achievements of students.
[122] World Bank (2003).

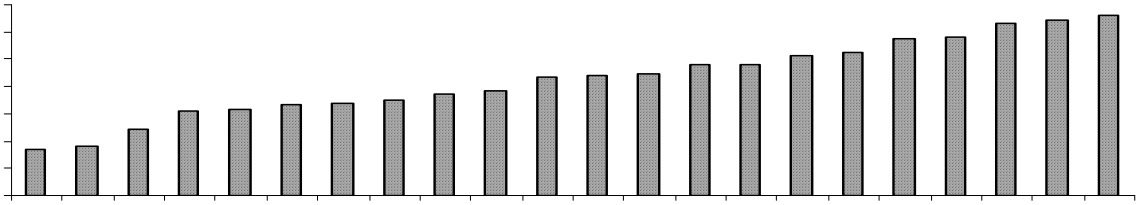
Figure 5. 10: Primary Schools with Single Teacher
(percent)



Source: District Information System of Education (DISE) data, 2005.

5.49 **While absenteeism is a governance issue, not all issues of quality interactions are related to accountability failure alone.** This can be illustrated by the amount of time that a teacher spends on teaching and learning activities, especially given the multi-grade situations in both regular schools and EGS and ALCs. The average number of teachers per primary schools with five grades range from 1 to 2.3. In many districts, the share of single-teacher schools is as high as 40-50 percent (Figure 5.10). An important aspect that influences the schooling outcome of girls is the presence of female teachers. In most districts of Jharkhand, the share of female teachers in the total teacher workforce is less than 30 percent (Figure 5.11). Clearly, there is a need to appoint more teachers, but there is also a need to use teacher deployment as a tool to favor appointments in those districts where the average number of teachers is low as well as in schools with single teacher.

Figure 5. 11: District-wise Female Teachers
(percent)



5.50 **Demand-side factors are equally responsible for poor educational output and outcome indicators.** For instance, while there are many reasons for being out-of-school, poverty appears to be the most compelling factor as shown by: (i) household work (25 percent); (ii) earning compulsions (23 percent); (iii) lack of interest (14 percent); (iv) migration (9 percent);

and (v) lack of access (8 percent).[123] The Pratham study (ASER, 2005) estimated that out-of-school children amount to 9.8 percent of the total population in the 6-14 age-group, 7.7 percent in the 6-10 year age-group and 13.7 percent in the 11-14 year age-group.

Access to Secondary Education

5.51 The importance of secondary education can be judged by two parameters. *First*, the income effects of education are considerable with the completion of secondary education. *Second*, given the current emphasis on the expansion of primary education there will be a huge demand for secondary education in the next 5-10 years for which the state needs to be prepared.

5.52 **Since the state was struggling with the issues in the elementary education sector, the cascading effect in terms of development of secondary education is yet to show its results.** This can be judged by the enrolment data. The Gross Enrolment Ratio (GER) for secondary education is very modest. In 2002/03 it varied from 13.5 percent (as per the Ministry of Human Resource Development statistics) to 18.3 percent (as per the 7th All India Education Survey). Gender inequity is sharper in the case of secondary education, with the GER for boys at 22 percent as against 14 percent for girls. The accessibility to secondary school, especially in rural areas, is a major constraint to the expansion of secondary education. According to the NSS survey of village facilities, only 36 percent of the villages in the state had access to secondary education facility within five km.[124]

5.53 **For a predominantly rural state, secondary education seems to be an urban phenomenon.** Currently, for every 11 primary schools and every three upper primary schools, there is one high or higher secondary school in the state. The Seventh All India Education Survey (AIES) shows that between 1993 and 2002, the secondary education facilities increased by 13 percent in rural Jharkhand and by 17 percent in urban Jharkhand. Moreover, secondary GER is as low as 9 percent in rural Jharkhand, compared with an estimated 18 percent for the state as a whole. Thus there is a need to focus on the development of secondary education facilities in the rural areas.

5.54 **Vocational education as judged by the number of Vocational Higher Secondary Education (VHSE) institutions is in a dismal state.** VHSE has never been a major part of the strategy for higher secondary education in the state. It is alarming that Jharkhand has only 20 VHSE institutes compared to 622 in Maharashtra, 560 in AP, or 469 in Kerala. Half of them are in the government sector and the other half in the private sector. Eight of these are located in Ranchi itself. It is imperative the quantity of vocational institutions in Jharkhand be increased and spread more towards the backward districts where the youth can be trained to meet the needs of the industrial sector.

E. Medium-Term Sector Strategy in Education

5.55 While impressive progress has been made in the state in expanding the net of primary education, strategic initiatives are required in several areas, particularly with regard to quality

[123] SSA Household census 2005.
[124] NSS 58th round, 2002.

and broad-based access. Clearly, to reach universal primary completion rates by 2015, Jharkhand needs: (i) a much faster growth rate in enrolment as compared to its historical trends; and (ii) better internal efficiency of the education system by reducing drop–outs and repetition rates and by improving transition and primary completion rates. The state is close to achieving gender parity in primary education. In the SSA program, Jharkhand is moving in the right direction, but needs further rigor and speed. Secondary education needs attention and general education at the secondary level needs to be modified to suit the labor market requirements. Other areas of concern include quality and learning levels. Overall policy, sectoral management and governance must be strengthened in order to achieve goals in the education sector. Some of the key areas relate to: (i) strengthening existing provisions and improving access; (ii) addressing the demand-side issues and formulating policies to ensure equity and social protection safety nets; (iii) teacher management and accountability for improvement in service delivery; (iv) management, support structure, capacity building and monitoring at the district and sub-district levels; (v) improvement in the efficiency of resource use both in elementary and secondary education; and (vi) partnership with the private sector at the post-elementary and secondary levels and in vocational training. Each of these issues is discussed below.

5.56 **Strengthening existing provisions and improving access**: The state needs to address issues related the status of EGS and AIEs, especially since they were originally conceptualized as transitory arrangements which should not be treated as substitutes for regular schools. The upgrading of EGSs into primary schools in a phased manner is a major challenge, which the state should undertake with utmost care. Secondary education is clearly an area that needs attention as it prepares children to either enter the workforce or proceed for higher education. However, the expansion of secondary sector education needs careful planning aimed at expansion in the rural areas to balance the current urban concentration. There is an urgent need to expand the vocational education sector; especially given the existing and upcoming industrial clusters in the state. All these recommendations point towards strengthening the implementation of the existing schemes in elementary education and the need for increased attention to other areas of education.

5.57 **Addressing demand-side issues and formulating policies to ensure equity**: Jharkhand is predominantly a tribal state and the expansion of the education sector needs to address the requirements of the tribal population. While there is a need for systemic reforms within the education sector, some issues can only be addressed from the demand side, by providing incentives to households to send their children to school. For instance, conditional cash transfers and residential schools schemes could be effectively used to target the children and retain them in school. On the supply side, provision for care of younger siblings through ICDS and pre-schools may help in releasing the elder siblings from duties involving the care of the younger ones. There is also a need to strengthen community involvement in planning and monitoring these issues.

5.58 **Teacher management and accountability for improvement in service delivery**: Addressing teacher-related issues in the state requires well thought out strategies. The state needs to fill vacant positions and ensure that teachers without formal teacher's training receive the minimum pre-service and regular in-service training. Moreover, there is a need to ensure adequacy of teachers with subject- specific knowledge in upper primary and secondary sectors. It is also important to ensure that all single-teacher schools receive additional teachers at least to

ease the burden of handling multi-grade teaching and learning. It is also important to ensure that adequate female teachers and those who understand the local tribal language and are sensitive to the contextual culture are selected. As in the case of EGS and AIE, the tenure, qualification requirements, standardization, selection and appointment by the local committees and pre-service and in-service training of the state's large group of para-teachers needs to be thoroughly analyzed.

5.59 **Management, support structure, capacity building and monitoring at district and sub-district levels**: Setting up of the State Institute of Education Management and Training (SIERT) and strengthening the links between all these support systems are important for effective sector management. The BRC and CRC structures should be made effective by periodic evaluation of the impact of their training and support. These institutions should be molded to play important roles in providing technical support: SIERT and State Institute of Educational Management and Training (SIEMAT) in curriculum revision, textbook development, and training of trainers at the district levels, research and evaluation. The state depends on the National Council for Education Research and Training (NCERT) textbooks because of which children are deprived of learning local-level issues.

5.60 **Improving the efficiency of resource use in elementary and secondary education**: Both the amount of resources and the efficiency with which resources are spent determine the quantity and quality of service delivery. The state should seriously address the issue of under-spending of SSA allocations. Since the money under innovative activities in SSA is aimed at introducing state-specific interventions, the state should identify activities that it could carry out in each of the districts using the innovative grants. It is important to step up the spending under community mobilization since the community could be used for better monitoring of the education process.

5.61 **Partnership with the private sector at the post-elementary and secondary levels and in vocational training**: Since the state has around 10 percent of its total schools under grants-in-aid, it could think of public-private partnerships in providing education, especially at the secondary level. One possibility is to increase the private institutions under grants-in-aid. The other could be to get NGO support to supplement the interventions in the education sector, especially among vulnerable groups. However, the options regarding grants-in-aid support to private schools in the present forms need to be re-examined to plug the loopholes in the system. The private unrecognized sector cannot be allowed to function without ensuring quality. For this purpose, legislation for regulating unrecognized schools in terms of quality, teacher management and other issues needs to be examined in a broader reform framework.

F. Access to Anti-Poverty Programs

5.62 An attempt is made here to answer three broad questions relating to the GoJ's programs specially targeted for the poor: (i) the main elements of the social protection strategy for the estimated 24 lakh families living below the poverty line (BPL); (ii) the reach and effectiveness of these programs from an administrative and beneficiary perspective; and (iii) based on the above, the adjustments needed in the current strategy to improve the impact of public policy. The state's programs[125] cover the traditional mix of social protection interventions that promote livelihoods

[125] Social protection programs in Jharkhand can be broadly classified as follows: self-employment programs (formerly IRDP and now SGSY); wage-employment programs (formerly JGSY and EAS, and now SGRY and which is NREG from February 2006);

(income generation) or provide safety nets and transfers, and focus either on the chronically poor or those who fall temporarily into poverty due to shocks.

Budget Allocation and Execution

5.63 **Jharkhand's investment in social protection programs has gradually increased to about 4 percent of GSDP in 2004/05**. As a share of revenue expenditures, these programs[126] have accounted for 18-24 percent in recent years (Table 5.1). Both as a share of GSDP and of revenue expenditures, Jharkhand appears to be an above-average spender on social protection programs among Indian states.[127] The expenditure per BPL family is quite considerable at about Rs. 5,025 (2004/05).

Table 5. 1: Social Protection Expenditures by Program Type (Rs. crore)

	2001/02	2002/03	2003/04	2004/05
A. Food Security Programs	272.75	348.39	396.37	281.83
B. Wage-Employment Programs	285.93	325.55	402.81	423.73
C. Self-Employment Programs	48.92	39.37	47.12	55.87
D. Housing Programs	78.12	120.89	132.53	159.43
E. Area Development Programs	296.49	320.89	323.91	536.56
F. National Social Assistance Programs	15.59	21.75	n.a.	46.13
Total Expenditures	**997.8**	**1176.84**	**1302.74**	**1503.55**
Total as Share of Revenue Expenditures (%)	**20.7**	**21.3**	**24.0**	**18.1**
Total as Share of GSDP (%)	**3.2**	**3.5**	**3.7**	**4.1**

Source: Government of Jharkhand administrative data.

5.64 **Wage employment programs and food security interventions, (mainly the PDS) traditionally accounted for two-thirds of the social protection budget.** However in 2004/05, Area Development Programs, including both central and state-funded schemes, the Rashtriya (RSVY) and Zila Yojana respectively, as well as the Member of Parliament (MP) and Member of Legislative Assembly (MLA) managed welfare programs[128] accounted for the largest share of the expenditure (44 percent). Housing programs are significant, accounting on average for more than 10 percent of the investment. The share of self-employment programs has fallen and is now less than 5 percent of total expenditures, while pensions are insignificant at 0.05 percent of GSDP.[129]

food security programs (TPDS, Antyodaya Anna Yojana, Annapurna Yojana, Midday Meal, ICDS); housing programs (formerly PMGY, now IAY); pensions and income transfer programs (National Social Assistance Programs including NOAPS, NFBS and NMBS); and area development programs that include several of the above strategies (DPAP, IWDP, PMGSY, RSVY, Zila Yojana, MLA and MPLADS).

[126] This analysis only reviews the major programs listed in the previous footnote. A plethora of other programs exist, mostly Centrally Sponsored Schemes, but they account for a very small share of the budget. The only exception is the Tribal Welfare Sub-Plan, which is significant in Jharkhand.

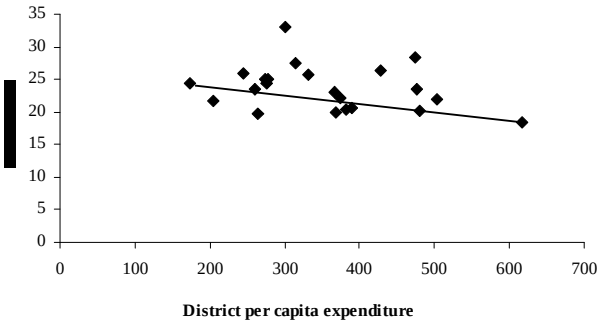
[127] Central spending on safety net programs was estimated to be 1.7 percent and 9.8 percent of GDP and revenue expenditures respectively in 2001 (Srivastava, 2004).

[128] All these programs are implemented through the district administration.

[129] It appears that the state has been allocated a far lower share of pensions than warranted if the formula adopted by the center is correctly applied (2.92 lakhs rather than the current 1.5 lakhs).

5.65 **While the majority of the programs are mandated and funded by the center, the state's share of expenditures is growing**. Centrally funded programs typically involve co-financing by the state of approximately 25 percent. Moreover, the state's increasing investment on state initiated and funded programs such as the MLA welfare programs and the Zila Yojana has resulted in a growing state share of the investment, currently more than one-third of the total.

Figure 5. 12: Correlation between District Expenditure and Poverty



Source: Government of Jharkhand administrative data.

5.66 **The district-wise allocation for several major programs has varied widely and does not appear to have a correlation with backwardness in recent years.** The average per capita allocation per district over a three-year period (2001-2004) varied from a low of Rs.173 to a high of Rs.616. When compared with the district poverty index, the per capita allocation showed little correlation with poverty (Figure 5.12).

Program Awareness, Coverage and Targeting

5.67 **There is a clear divide in the level of awareness between public works programs, i.e. Annapoorna and Swarnjayanti Gram Swarozgar Yojana (SGSY) on the one hand - where less than half the population is aware of the programs - and PDS, Indira Aawas Yojna (IAY) and social pensions on the other hand, where awareness is generally high.** While the high knowledge of PDS is not surprising, the differentials between social pensions and Annapoorna for example (which have substantial overlap in target groups), and between IAY and other programs operated by the rural development department are noticeable. The relatively low awareness of public works is a particular cause for concern, given the intention of scaling-up of spending under the National Rural Employment Guarantee (NREG) scheme (Table 5.2).

Table 5.2: Familiarity with Social Protection Programs by Program Type (2005)

Program	Share of HH Familiar with Program (%)
Wage Employment Schemes	45.1
Food-for-Work Schemes	44.5
Annapoorna	36.6
SGSY	40.6
PDS Foodgrains from FPS	97.0
IAY/Rural Housing	89.3
Social Pensions for Destitute Elderly, Widows and Disabled	85.5

Source: Rural Jharkhand Baseline Survey, 2005.

Table 5.3: Estimated Coverage by Program, Administrative and NSS data (Rs. crore)

Program	Average Benefit Rs./Year	Maximum Share of Eligible BPL Households Covered[a] (Admn data) %	Estimated Coverage (NSS data 99/00)%
SGRY	7300	11.4	5.5
SGSY	8000	3.6	6.0 /b
IAY	20,000	3.4	Na
TPDS	780	70	64.3
NOAPS	1200	27	Na

Source: Government of Jharkhand administrative data; NSS 55th round.

[a] Optimistic estimate assuming entire expenditure was received by BPL households, and using 1997 estimates of number of BPL households.

[b] Number of families reporting an IRDP benefit in the past 5 years.

5.68 **All sources indicate that, despite significant investment, only a small percentage of BPL families benefit from these programs.** First, using administrative data (Table 5.3), even in the best case scenario, program coverage is low, at around 3 percent for the self-employment and housing programs, 11 percent for wage employment, and 27 percent for old-age pensions for the elderly living below the poverty line. These estimates are very optimistic, as they assume that only BPL families benefited from the programs and that there was only one beneficiary per family per program. Survey-based data allows for a clearer picture. For example, according to a recent PEO evaluation of TPDS, only 57 percent of BPL families were able to avail of TPDS benefits and a similar evaluation commissioned by the Department of Food and Public Distribution[130] found that those who received benefits still depend on market sources for more than half their rice requirements.

5.69 **Program coverage is even lower if estimated from the results of two government surveys – the National Sample Survey (NSS rounds 43, 50 and 55) and a Planning Commission Evaluation[131] (2000).** The NSS data (1999/2000) shows that only about 5.5 percent of families in Jharkhand were covered by a wage employment program, although this is likely to be an underestimate since it only covers those families which received more than 60 days of work in the preceding year. However, coverage appears to be decreasing over the successive NSS rounds despite an increase in the number of man-days reported in the administrative data. For self-employment programs (SGSY), NSS data also shows that about 6 percent of the population was covered (that is, lived in a household which received Integrated Rural Development Program (IRDP) or SGSY assistance in the five years preceding the survey). Coverage under PDS is relatively high (63 percent), but about 27 percent of eligible families reported not having a ration card, and 38 percent reported that they could not avail of PDS commodities due to non-availability of the items in the ration shop. The NSS data showed 0.4 percent coverage under the midday meal program against a national average of 3.2 percent.

5.70 **While the NSS data is useful, the 2005 RJBS provides a more updated picture of coverage for a wider range of programs, indicating a very high degree of leakage once again.** It also provides precise estimates of benefits actually received by households, which the NSS does not allow except for PDS. The survey asked about the share of the population that had benefited from or participated in the scheme in the past three years. This is a generous estimate of program coverage and the results are presented in Table 5.4, with beneficiary coverage estimated across the whole respondent population. With the exception of PDS, no program covers more than 10 percent cent of all households. However, this needs to be interpreted with some caution, as the

Table 5. 4: Share of Households Benefiting from Schemes in the Past Three Years 2005

Program	Share of HH Benefiting in Past Three Years (%)
Wage Employment Schemes	9.7
Food-for-Work Schemes	4.4
Annapoorna	1.0
SGSY	1.55
PDS Foodgrains from FPS	73.0
IAY/Rural Housing	9.3
Social Pensions for Destitute Elderly, Widows and Disabled	4.1

Source: Rural Jharkhand Baseline Survey, 2005.

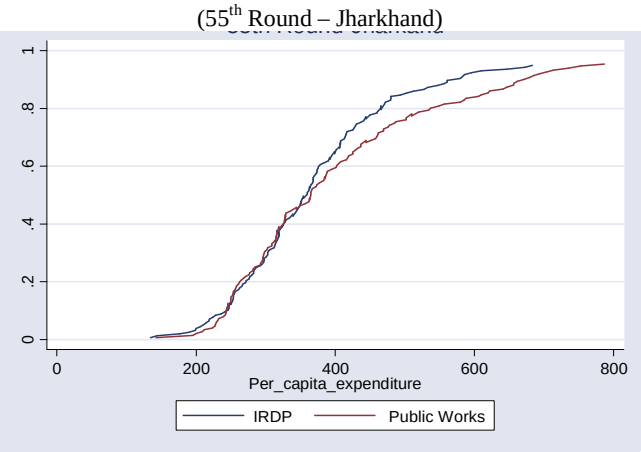
[130] ORG Centre for Social Research: Evaluation Study of the Targeted Public Distribution System and Antodaya Anna Yojana, September 2005.
[131] Planning Commission: Survey of Poverty Alleviation Programs, Bihar-Jharkhand. 2000.

potential target share of households is much less than all households.[132] Nonetheless, the figures indicate the relatively low coverage of the major anti-poverty programs across the entire population.

5.71 **The NSS and Planning Commission sources indicate that public works programs are relatively well targeted, but all the programs had some leakages**. The concurrent evaluation for SGRY confirmed that more than 80 percent of the wage employment program beneficiaries in Jharkhand belonged to BPL households, more than 90 percent lived in kutcha houses and that 70 percent of beneficiaries had been through primary education or less. Early rounds of the NSS also confirm that the poor benefit significantly more than the non-poor in wage employment programs.

5.72 However, in the most recent (55th round), this difference was more muted in Jharkhand probably due to the fact that the SGRY wages (which cannot be lower than the statutorily fixed minimum wage) are higher in many areas than the market wage rates. Approximately half the IRDP beneficiaries were estimated to be non-poor from the NSS data, while the Planning Commission evaluation put the non-poor at 39 percent of the IRDP beneficiaries in Jharkhand. This is also visible in the cumulative density functions of beneficiaries in both programs in 1999/00, as shown in Figure 5.13. A surprisingly high percentage of old-age pensioners (36 percent) were reported to be ineligible to receive the benefit while 23 percent of the housing program beneficiaries (IAY) were also estimated to belong to households above the poverty line.[133]

Figure 5. 13: Cumulative Benefit to Households for IRDP and Public Works



Source: Estimated from NSS 55th round, Schedule 1.

[132] The official number of BPL households in Jharkhand is just under 24 lakh.
[133] Planning Commission (2000).

5.73 **Initial results from RJBS also indicate mildly progressive targeting of social protection programs**, **with the apparent exception of SGSY.** The analysis is ongoing, but some initial results are presented below.[134] Table 5.5 presents monthly per capita expenditure between beneficiary and non-beneficiary households of major programs.[135] Two points emerge:

Table 5. 5: Average Per Capita Expenditure of Beneficiary and Non-Beneficiary Households by Program
2005

‘	Beneficiary Household (Rs. per month)	Non-Beneficiary Household (Rs. per month)	Per capita Expenditure of Beneficiary /Non-beneficiary Households (a)
Wage Employment	221.6	280.8	78.9
Food-for-Work	220.3	280.9	78.4
Annapoorna	223.5	285.7	78.2
SGSY	296.9	282.3	105.2
PDS Foodgrains	248.1	283.9	87.4
IAY	211.9	265.3	79.9
Social Pensions	230.5	264.5	87.1

Source: Rural Jharkhand Baseline Survey, 2005. Note (a): percentage of less than 100 percent indicates that beneficiary households are poorer than non-beneficiaries and vice versa.

- Beneficiary households are notably poorer than non-beneficiary households for nearly all programs, with the exception of SGSY. The average per capita expenditure of beneficiary households is between 12 percent and 21 percent lower than for non-beneficiaries, though for SGSY, beneficiary households are actually 5 percent better off than non-beneficiaries. This may indicate selection bias among more entrepreneurial households (though this should in principle be more than offset by the requirement of BPL status for most *swarozgaris*).
- Self-targeted workfare programs perform best in terms of largest expenditure shortfall of beneficiary households, though BPL-based IAY also does relatively well. In contrast, both SGSY in particular and PDS to a lesser extent have relatively lower (negative in the case of SGSY) expenditure shortfall among beneficiary households.

[134] Further analysis will allow a more disaggregated profile of beneficiaries relative to the non-beneficiary population, as averages among the two groups are not useful for getting a sense of distribution among both groups, for example, how many non-beneficiary households are in the lower bounds of the expenditure distribution, and what share of beneficiaries have above average expenditure levels.

[135] Expenditure is generally considered a more robust indicator of household welfare than income as it tends to be less subject to short-term fluctuations, and also tends to be reported more reliably. See Deaton (1997).

5.74 **Another key dimension in assessing impact is the level of benefit received by those households who participate in different anti-poverty programs.** The survey asked about benefits received over the past 12 months among households who reported participation at any time in the previous years. The results are presented by program in Table 5.6 (for PDS items in Table 5.7), with median and mean benefits. The following points are noteworthy:

Table 5. 6: Median and Mean Benefits in Past 12 Months for Beneficiary Households for Various Programs

Program	Median Benefit	Mean Benefit
Wage Employment Schemes	10 days work Rs. 600	20.3 days work Rs. 1,390.8
Food-for-Work Schemes	14 days work Rs. 535 equivalent	19.2 days work Rs. 762.6 equivalent
Annapoorna	76 kg rice 0 kg wheat	66.1 kg rice 6.1 kg wheat
SGSY	Rs. 10,000 credit	Rs. 13,400 credit
IAY/Rural Housing	Rs. 20,000	Rs. 18,200.2
Social Pensions for Destitute Elderly, Widows and Disabled	Rs. 1,200	Rs. 1,260.7

Source: Rural Jharkhand Baseline Survey, 2005.

- The benefit reported from IAY is around Rs.5, 000 less than the official amount per household, which is consistent with field reports of a required bribe of Rs. 4,000-5,000 for a household to secure an IAY benefit.

- Social pension receipts in contrast appear to have minimal leakage, given that the monthly average benefit in 2005 was Rs.100.

- The total number of workdays received from public works was considerably less than the stated target in both SGRY and National Food for Work (NFFW) of 100 days per rural poor household. Even assuming that the same households access both food-for-work and wage employment schemes, the median number of workdays per household was only 25, and the mean less than 40 days. In terms of wage rates, the average daily wage rate received in wage employment schemes appears to be quite close to the state's official agricultural minimum wage at the time, which was just under Rs. 65 per day. However, the average wage rate in NFFW beneficiaries was considerably lower than those in other wage employment schemes, closer to Rs. 40 per day. However, there are larger measurement issues here due to the need to value food received, and the result needs to be interpreted with caution.

Table 5. 7: Median and Mean Benefits in Past 12 Months in Beneficiary households for PDS

Item	Median Amount Received	Mean Amount Received	Amount Received by 75th Percentile
Rice	0 kg	38.8 kg	24 kg
Wheat	0 kg	35.3 kg	45 kg
Cooking Oil	0 litre	1.1 litre	0 litre
Kerosene	36 litre	32.2 litre	36 litre

Source: Rural Jharkhand Baseline Survey, 2005.

- Grains received under Annapoorna appear to be significantly below the quota allocation, which was 10 kg of rice or wheat per beneficiary per month. The survey results indicate that grains received were just over 60 percent of the official allocation per beneficiary.

5.75 Given that several different items are available in principle from the fair price shops, which distribute PDS items, results on benefits received from PDS are presented in Table 5.7. The results for the general population are somewhat difficult to interpret (with the exception of kerosene), due to the low offtake by Above Poverty Line (APL) households, and those without ration cards. The amount received by the 75th percentile households has also therefore been added. Nonetheless, several points emerge:

- The median household in Jharkhand was only using FPS for purchasing kerosene and not foodgrains or cooking oil in 2005. This figure itself is a cause for concern, given that around half the Jharkhand household population is considered to be BPL.
- Focusing only on the 75th percentile (ranked according to amounts received from PDS), the annual amount of total grains received comes to only 69 kg of rice and wheat combined. This compares to an allocation for BPL households of 35 kg per month or 420 kg per year, indicating a major shortfall in grains actually delivered to the poor.
- Even for kerosene, the average allocations appear to be well below the official norm. Annual official allocation is 276 liters per year in rural areas. A median actual amount of 36 liters is therefore well below the quota for the large majority.

5.76 **Seasonal targeting of anti-poverty programs seems to be quite inadequate**. An additional aspect of implementation, which is important for some schemes, is regularity or seasonal concentration of benefits. For example, in principle, public works should be more important to beneficiaries in the lean rather than the peak agricultural season (though evidence from states such as Orissa and Maharashtra have indicated that the concentration of public works employment is counter-cyclical), while for programs such as PDS or social pensions, regularity of benefit may be more important. The results on seasonal concentration of selected benefits are presented in Table 5.8. A few observations can be made:

Table 5. 8: Regularity of Benefits by Program (2005)

(in percent)

Program	All Year	Lean Season Only	Non-lean Only	Irregular/No Fixed Timing
Wage Employment	8.5	10	4.5	76.9
Food for Work	2.2	14.3	5.5	78.0
PDS	64.7	2.8	1.6	30.9
Social Pensions	38.9	9.4	1.2	50.6

Source: Rural Jharkhand Baseline Survey, 2005.

- For the two employment programs, there appears not to be any concentration of employment in the lean season. This is of some concern given the low average numbers of days of employment per beneficiary.
- PDS in contrast is more regular for the bulk of beneficiaries, though as noted, the bigger question is what and how much of it they receive on a regular basis. However, even for PDS, over one- third of beneficiaries report less than regular benefits.
- Surprisingly, social pensions have less than 40 percent of beneficiaries receiving regular payments (though the benefit is in principle monthly), indicating bunching of payments.

5.77 **The rural Jharkhand baseline survey also reveals the problem of the BPL approach to program implementation.** While the approach of a summary identification process and the provision of identification cards to BPL families seem attractive in theory, there are a number of problems in the implementation of this approach**.** In 1997 and again in 2002, the GoI Ministry of Rural Development directed the states to carry out a BPL census. This methodology has come in for serious criticism[136] on the grounds that: (i) the indicators are widely disparate but have the same weight (for example, hunger and preferred form of assistance); (ii) the list includes contingent indicators (households that have migrant workers or school-age children) that would skew the ranking; (iii) lack of rationale in assigning values to some indicators (for example, artisans are presumed to be better off than subsistence farmers and self-employed service providers better than both); and (iv) lack of transparency in the selection of the cut-off scores. In addition, the problem of a list that remains static till the next census was not addressed. [137]

Table 5. 9: Comparing List of Poor Families from the ORG-MARG and BPL Surveys

Status of Household as per ORG-MARG Survey	Status of Household as per Family Ration Card			
	AAY/BPL		APL	
Very Poor/ Poor	8398	37%	1357	6%
Middle/High Income	9098	40%	3949	17%

Source: ORG Center for Social Research: Evaluation Study of TPDS and AAY.

5.78 **Several exercises, comparing the results from independent income and expenditure surveys to the BPL survey have shown little correspondence in the BPL and survey-based lists.** Table 5.9, which tabulates the ORG-MARG data to capture the false-positives (not poor, but classified as AAY/BPL) and false negatives (poor, but classified as APL), shows that only 54 percent of the households had been properly classified, that 40 percent of households declared to be AAY or BPL were actually middle or high income and that 6 percent of households that were poor were wrongly classified as APL.

5.79 **High overhead costs and outright leakages severely limit the cost effectiveness of the programs.** The 2005 Programme Evaluation Organization (PEO) evaluation of Targeted Public Distribution System (TPDS) estimated the average leakage due to corruption to be about 36 percent nationally, but listed Bihar[138] as a state with "abnormal levels of leakage" (75 percent) as well as the state with the second highest share of "ghost cards" (14 percent). Bunching of the off-take in March (only about 10 percent of the 2005 allotment had been drawn up to end-February 2005), lends credence to the suspicion that stocks not drawn through the FPS are diverted to private traders who pocket the subsidy.

5.80 **Similarly, a PEO evaluation of SGRY reports rampant corruption including widespread use of contractors and fudging of muster rolls**. About nine percent[139] of beneficiaries in Jharkhand reported difficulties in finding work under SGRY because of the involvement of contractors. The Planning Commission evaluation of IRDP[140] also showed that

[136] For a full discussion see Sundaram (2003).
[137] See also Jalan and Murgai (2006) for detailed empirical analysis of the BPL 2002 census methodology and its weaknesses using NSS data.
[138] The Bihar State Food Corporation handles the lifting and transportation of foodgrains for Jharkhand. Only nine of the 22 districts in the state have FCI godowns.
[139] The national average was 2.5 percent.
[140] Planning Commission (2000).

25 percent of beneficiaries existed only on paper. The CAG evaluation of Swarnjayanti Grameen Swarozgar Yojna (SGSY) assessed that only 38 percent of overhead expenses in Jharkhand were legitimate project expenses. Overall, multiple assessments and occasional public scandals (for example Sholapur, Maharashtra in 2004) support the widely held view that corruption is one of the most significant challenges of government-implemented programs.

5.81 **Significant shortfalls in program allocation vis-à-vis need or eligibility, and delays in implementation increase the likelihood of demand for bribes**. The average number of days of employment provided under SGRY was only 30 (against the targeted 100 days) in 2002/03, according to the SGRY concurrent evaluation. The delivery of the grain component under SGRY was seriously delayed, so much so that it is not clear whether all the participants eventually received their due share in kind. Beneficiaries interviewed in the Planning Commission's evaluation of poverty alleviation programs in Jharkhand reported long delays between the time an application was made and when payment was received under SGSY, IAY and programs under the National Social Assistance Scheme. More than 80 percent reported paying "speed money" for the first two programs, while two-thirds paid for inclusion in the pensioners' list.

5.82 **The state government (district administrations in particular) lacks the capacity to implement many of these supervision-intensive programs and has failed to maximize the use of possible supervisory agencies**. Lack of technical support was a significant issue in failures in IRDP and SGSY projects and for the quality of works in SGRY. Districts reported a serious shortage of qualified engineers and supervisors to monitor public works programs, as a result of widespread vacancies and without the sanction of additional positions to meet an increasing volume of work. This situation will require even more urgent attention for implementation of the recently approved NREG[141]. The PRIs, which could play an important role in supervision, are currently not operational in Jharkhand. Approximately 40 percent of the panchayats had identified local leaders or facilitators for the works in the state, according to the concurrent evaluation, and less than half were assigned duties such as maintenance of the muster roll or distribution of wages. Only about half the beneficiaries said they were aware of a supervisory role by the implementing agency. Similarly, greater NGO involvement could improve the performance of SGSY, as it has in Lohardaga district, with the involvement of Pradan, an NGO that is providing necessary technical support for poultry development and other animal husbandry activities.

5.83 **The overall monitoring of programs is weak**. At the state level, the department of rural development should be commended for establishing a computerized monitoring system that provides up-to-date information on all the major programs implemented by it. Similar information was not readily available from other departments. Only about half the districts had been visited by state-level officials according to the concurrent evaluation for SGRY. At the district level, although regular monitoring by the deputy commissioners and SSS heads of the different departments is supposed to take place, the TPDS evaluation similarly reported poor monitoring by taluk and block officials. PRIs, user groups and gram sabhas have not been widely established and do not play a significant role in regular field-level monitoring. The concurrent evaluation of SGRY revealed that no beneficiary committees had been appointed for 40 percent of the works in Jharkhand. Only half the beneficiaries were aware of the price fixed

[141] The scheme, however, makes provision for financing of additional personnel.

for food grains under the non-cash wage component of SGRY. Area development programs lacked details and appeared to be least monitored of all the programs. This is an important lacuna that must be addressed, given the rapidly increasing investment in these programs, particularly the state-funded Zila Yojana and MLA welfare schemes.

5.84 **Beneficiaries lack the necessary information about programs which constrains their ability to participate in them fully, demand their fair share of benefits and monitor program implementation.** According to the findings of the ORG-MARG survey, only 15 percent of the population in rural areas nationwide was aware of the process of selection for AAY. About two-thirds of the AAY beneficiaries in the country were themselves unaware of the criteria for selection. Similarly 80 percent of the people surveyed were unaware of the selection process for being included in the BPL list. Concurrent evaluation of SGRY found that only 55 percent of beneficiaries in Jharkhand were aware of the agency that implemented works under that program, that half the works did not display signboards providing details of the work, and that 30 percent of village monitoring committees met irregularly.

G. Tribal Inclusion through Civic Empowerment

5.85 **Among adivasis in Jharkhand, land and the surrounding natural environment constitute the basis of their socio-political institutions, serving as a template for social organization and political thought besides being a mode of subsistence.** The reinforcement of social boundaries, the protection of the environment and the enforcement of community rights over natural resources (land, forest, and water) constitute the foundation and the *raison d'etre* of tribal institutions in Jharkhand.

5.86 **Tribal institutions in Jharkhand are an expression of direct democracy.** Traditional leaders derive their legitimacy from being *primus inter pares* and communities have the power to recall and replace traditional leaders in case of misconduct. The application of customary law is based on consensual decision-making, made possible by the fact that adivasi communities in Jharkhand are generally small in scale and based on kinship ties. Traditional leaders apply customary law in regulating sustainable access to land and forest by different social groups (be it tribes, castes, clans or lineages) as well as in regulating marriages and ensuring the favor of supernatural forces for the physical and social reproduction of the group.

5.87 **The weakening of socio-political institutions in charge of the social reproduction of the group and the protection of natural resources represents a threat both to tribal society and to the environment.** The weakening of traditional institutions also threatens the environment and National Resource Management (NRM)-based livelihoods. Institutions are not frozen but change through time, as a response to external factors or as an inherent process of adaptation to new demands and challenges. However, institutional change can also be imposed from outside. When this happens, it is perceived as a threat to the survival of the social group and its habitat. In Jharkhand, many ethnographic accounts have captured the process of transformation and weakening of adivasi traditional institutions, either under the pressure of religious and social movements or as a consequence of assimilation and mainstreaming efforts by the state.

5.88 **Constitutional provisions aimed at protecting adivasi culture and interests have been mostly ineffective as seen from:**

③ Part X (Article 244) - This deals with the administration of scheduled areas and tribal areas, which covers the operation of the 5th Schedule. In practice, "experience with the 5th Schedule has been disappointing".[142] Tribal Advisory Councils "hardly have any teeth, laws applicable to the rest of the state are routinely extended to scheduled areas, the governor rarely exercises the powers vested" in him or her, and the overall result manifests in the "miserable human development indicators for adivasis" (Sundar 2003).

③ Part IX (Panchayats) – "Article 243B makes it "mandatory for every state to constitute panchayats at the village, intermediate and district levels". However, "an exception is made for scheduled areas in Article 243M", which notes that parliament can modify or pass new laws on panchayats for scheduled areas. Parliament passed the Provisions of the Panchayats (Extension to the Scheduled Areas) Act (PESA) on December 24, 1996 (Box 5.1). However, the amendment has mainly remained on paper (Sundar 2003).

5.89 **Similarly, national policies have been aimed mostly at the achievement of a single national identity rather than emphasizing the specific identity of adivasis as groups in need of protection.** The new Draft Tribal Policy reiterates the same approach as it seeks to bring them into the mainstream of society and assimilate, while not integrating, them through opportunities to interact with outside cultures.

Box 5. 1: Panchayat Extension to Scheduled Areas Act (PESA) 1996

PESA is the first law that empowers adivasis to redefine their own administrative boundaries, with the traditional village council (gram sabha) becoming their core institution. The formal recognition of the tribal traditional system as the basic unit of self-governance is the most significant aspect of PESA and the implications of this in terms of empowerment are far wider that it is generally acknowledged. The basic assumptions are that: (i) tribal customary norms and practices are somehow "more democratic than those imposed by colonial and post-colonial states"; and (ii) "the basic unit of governance in tribal areas is the hamlet" or the "natural" village rather than the revenue village (clause 4.b). However, the Act is in itself "contradictory", when it provides for upholding custom, which would involve non-elected headmen at the village and pargana level, while at the same time providing for elections of the village panchayats, as in the clauses 4 c&g (Sundar 2003).

5.90 **The decentralization process also needs to be carried out by recognizing the special status of tribal community institutions, as envisaged in PESA.** Statutory panchayats based on representative democracy are extended to scheduled areas regardless of the different constituent elements of already-existing adivasi institutions, contradicting the spirit of PESA. Panchayat leaders are elected for a term of five years and cannot be recalled by the community. Their decision-making process is not based on consensus-building process. Their administrative jurisdictions do not overlap with tribal kinship-based jurisdictions. Moreover, the very size of the

[142] This section on laws and institutions governing tribal inclusion in Jharkhand draws considerably on discussions in Sundar (2003). Parts within inverted commas unless mentioned otherwise are cited from this source.

statutory gram panchayat (5,000 residents) suggests its incompatibility with decentralized self-governance.

5.91 **North-East India provides an example where traditional headmen were replaced by elected leaders leading to extensive elite capture, land alienation and consolidation and social inequalities.** Despite the legal recognition of collective land ownership, communities were dis-empowered from their traditional function to control access to and disposal of land, while the traditional institutional mechanisms that ensured downward accountability of the leaders got weakened. In Meghalaya, a demand has been expressed for "constitutional recognition of tribal customary leaders, like Syiems, Nokmas and Dollois" vis-à-vis elected leaders due to the failure of the electoral system to achieve true democracy and accountability.[143]

5.92 **Civil society in Jharkhand is demanding a reform of traditional structures from within, along the lines identified by PESA.** In point of fact, PESA dismisses the possibility of autocratic leaders, albeit non-elected, by providing for gram sabha control. This control is meant to cover different economic spheres, including land protection and restoration, by legitimizing customary norms, which the same headmen are subject to, and by empowering communities to replace those leaders that misbehave.

5.93 **Care must be taken to look after the needs of voiceless groups, particularly women, youth, landless and migrants, and to involve them in decision-making and the everyday affairs of the gram sabhas.** The seasonal migration from Santhal Parganas and elsewhere could result in usurpation of control over gram sabha or gram panchayat decisions by those who can afford to stay in the village. The state government should also grant rights to local people in natural resource management. Customary land tenure should be recognized (Box 5.2). People should be "consulted on their vision of development", their land should not be acquired without their prior and "informed consent instead of mere consultation", they should have "shares in any project that comes up on their land" with their land ownership remaining intact, and they must be asked to "move only if rehabilitation has been satisfactorily completed" (Sundar 2003). It is time that the voices of the left-out majority of the state are finally heard and their problems acted upon, and that an accelerated and inclusive growth strategy finally ushers in a new development decade for Jharkhand.

Box 5. 2: Recognition of Customary Land Tenure Systems through Traditional Institutions

The expression "customary tenure" is used here to define property arrangements characterized by the following elements: ritual and cosmological relations with ancestral lands; community "rights" of control over land disposal; kinship or territory-based criteria for land access; and principles of reversion of unused land to community control. One has to understand the causes of tenure insecurity to influence the legal policy response. In the case of Jharkhand, tenure insecurity derives primarily from encroachment by outsiders and interaction with the state rather

[143] See, Hussain (2004).

than from conflicts internal to the customary groups. Indeed, the denial of rights has led to a situation where ancestral lands are still used by the adivasi community yet without any tenurial security.

Global experience shows that the recognition of customary tenure increases tenure security on both accounts. On the one hand, it increases adivasi negotiating power with the government. On the other, it reduces alienation of land by outsiders. In the case of failure of protective laws and regulations points to the fact that a paradigm shift may be required. Ensuring community control over land transfers has been shown to effectively reduce land alienation whereby all have a stake in the land. Wherever land is owned individually, the legal owner and the community, through the gram sabha and other traditional mechanisms, would jointly exercise control rights over land transfers.

Annexes

Annex Table 3. 1: Determinants of Rural Consumption: Results for the 55th Round of NSS

Variables	Base Model		Extended Model-1		Extended Model-2	
	Coefficient	T- Ratio	Coefficient	T- Ratio	Coefficient	T- Ratio
(Constant)	651.7	29.6	654.4	24.5	644.6	22.6
Household Size	-75.2	-16.8	-77.7	-17.4	-79.9	-18.0
Proportion of Land Irrigated	34.1	2.7	65.2	4.9	65.8	5.1
Religion (Hindu as reference category):						
Muslim (dummy)	-35.3	-2.3	-29.9	-1.9	-25.7	-1.6
Christian (dummy)	-6.3	-0.3	14.8	0.7	10.3	0.5
Tribal Status (Caste Hindu as reference category):						
Scheduled Tribe (dummy)	-112.1	-8.2	-130.3	-9.2	-131.9	-9.4
Scheduled Caste (dummy)	-120.0	-7.8	-123.1	-8.0	-122.4	-8.2
Other Backward Caste (dummy)	-89.3	-7.3	-78.6	-6.3	-79.0	-6.4
Education status ("No formal education" as reference category):						
Below Primary (dummy)	-14.5	-1.0	-5.3	-0.3	-2.7	-0.2
Primary Completed (dummy)	6.8	0.4	12.0	0.7	13.1	0.8
Secondary Completed (dummy)	39.3	2.4	39.3	2.5	39.4	2.5
Higher Secondary completed (dummy)	266.0	8.5	269.4	8.7	263.5	8.6
Graduation and Above (dummy)	247.4	7.1	255.3	7.3	237.5	6.8
Max. Level of Education by any HH Worker	4.5	2.1	3.5	1.6	2.8	1.3
Whether Household has Access to Electricity	188.3	13.7	181.5	12.1	164.3	10.9
Self-Employed in Non-Agricultural Activities (dummy)	10.9	0.8	8.1	0.6	—	—
Non-Agricultural Labor (dummy)	-69.2	-4.8	-66.2	-4.4	—	—
Self-Employed in Agricultural Activities (dummy)	-22.3	-2.3	-21.9	-2.2	—	—
Whether Household Head is Female	-20.9	-1.1	-12.7	-0.7	-20.4	-1.2
Land Owned (ha.)	12.2	5.2	11.6	5.0	12.6	5.5
No of Male Workers	15.7	2.4	15.5	2.4	16.6	2.6
No of Female Workers	-25.6	-4.6	-25.6	-4.4	-22.4	-3.9

Annex Table 3.1 (Contd): Determinants of Rural Consumption: Results for the 55th Round of NSS

Variables	Base Model		Extended Model-1		Extended Model-2	
	Coefficient	T- Ratio	Coefficient	T- Ratio	Coefficient	T- Ratio
District ("Pakur" as reference category):						
Godda			-41.3	-1.7	-31.3	-1.3
Sahib			-60.0	-2.6	-61.6	-2.7
Dumka			-68.6	-2.8	-66.4	-2.8
Deoghar			-114.7	-4.7	-114.1	-4.7
Dhanbad			-18.9	-0.7	-27.3	-1.1
Giridih			-21.5	-0.8	-27.1	-1.1
Hazari			-22.5	-0.9	-31.9	-1.3
Palamu			0.7	0.03	8.7	0.4
Lohar			-0.4	-.01	0.6	.03
Gumla			-29.0	-1.2	-30.9	-1.3
Ranchi			38.5	1.9	42.4	2.1
Esingh			28.8	1.3	30.9	1.3
Wsingh			63.8	3.2	64.0	3.2
Bokaro			3.9	0.2	-6.1	-0.3
Kodarma			8.7	0.4	0.7	0.03
Chatra			9.3	0.4	3.7	0.1
Garwhwa			26.4	0.9	28.8	1.1
Main Source of Income (construction as reference category):						
Agriculture					-1.2	-0.1
Mining					57.5	1.7
Manufacturing					62.3	3.1
Trade					58.4	2.6
Transport Business					121.5	4.4
Formal Service					99.7	3.5
Informal Service					-47.4	-2.2
Adjusted R square	**-**	**0.401**	**-**	**0.428**	**-**	**0.439**

Note: The dependent variable is "per capita consumption expenditure" for rural areas. The results represent OLS estimates.

Annex Table 3. 2: Determinants of Livelihood Outcome: Results of Multivariate Regression Analysis

	Household Level		Household and Community Level		Household, Community and Region Level	
	Coefficient	T Ratio	Coefficient	T Ratio	Coefficient	T Ratio
(Constant)	311.8	8.3	264.8	6.9	199.3	4.9
Household Size	-26.3	-16.7	-26.1	-16.7	-27.4	-17.6
Age of Household Head	1.6	1.0	1.9	1.2	1.8	1.2
Square of Age	0.0	-0.7	0.0	-0.9	0.0	-0.8
Land Owned, Acres	3.7	3.5	3.6	3.4	3.8	3.7
Non-and Assets* 1000	0.3	5.0	0.3	5.1	0.3	5.1
HH Head Female	8.0	0.5	5.1	0.3	2.2	0.1
No of Male Workers	20.9	4.1	21.9	4.3	23.7	4.7
No of Female Workers	9.8	1.9	10.7	2.1	10.3	2.0
HH Member away for Work-now or 10 years ago dummy	51.2	3.3	50.2	3.3	45.1	2.9
Max Level of Education by any HH Member	6.2	1.8	6.3	1.9	5.8	1.7
Education of Household Head: below primary	13.7	1.2	14.9	1.3	16.2	1.4
Education of Household Head: primary	-5.5	-0.4	-2.9	-0.2	-3.9	-0.3
Education of Household Head: secondary	-9.4	-0.9	-10.3	-1.0	-6.3	-0.6
Education of Household Head: Post-secondary	32.2	2.4	29.7	2.2	30.4	2.3
Education of Household Head: higher	41.7	2.0	32.9	1.6	36.9	1.8
Muslim	14.3	1.4	19.1	1.9	23.2	2.3
Christianity	4.7	0.2	9.8	0.5	16.9	0.9
Tribal Religion	-40.5	-3.0	-41.4	-3.0	-20.1	-1.4
SC	-29.0	-2.2	-28.8	-2.1	-29.1	-2.2
ST	-61.7	-4.5	-54.9	-4.0	-39.3	-2.9
OBC	-41.3	-4.1	-41.4	-4.1	-40.4	-4.1
Electricity Access	45.3	6.1	37.4	5.0	39.4	5.2

Annex Table 3.2 (Contd): Determinants of Livelihood Outcome: Results of Multivariate Regression Analysis

	Household Level		Household and Community Level		Household, Community and Region Level	
	Coefficient	**T Ratio**	**Coefficient**	**T Ratio**	**Coefficient**	**T Ratio**
Employment Type: farm	-22.3	-1.8	-21.8	-1.8	-23.3	-1.9
Employment Type: ag_wage	-14.6	-0.3	-7.7	-0.2	13.6	0.3
Employment Type: non- ag. wage	3.0	0.3	3.7	0.4	-3.3	-0.4
Employment Type: salaried worker	114.2	2.1	109.9	2.0	121.6	2.7
Employment Type: trader	54.4	0.6	36.8	0.4	27.0	0.3
Employment Type: informal service	62.8	4.6	59.3	4.4	73.7	5.4
Employment Type: non-farm self-employment	82.4	3.2	81.4	3.2	83.1	3.3
Community Level Factors:						
Quality of Approach Road: stone/ brick	-	-	6.2	0.7	4.4	0.5
Quality of Approach Road: metalled	--	-	8.6	.9	-5.0	-0.5
Type of Market Connectivity: approach road-market	-	-	22.3	1.6	14.6	1.1
Type of Market Connectivity: main road-market	-	-	50.9	3.9	50.6	3.9
Presence of SHG Group	-	-	.4	.04	6.2	0.7
Presence of NGO Program	-	-	39.6	2.0	29.4	1.5
Presence of Community Shops	-	-	33.1	3.2	44.8	4.3
Geographic Regions:						
North Chottanagpur					87.2	6.2
Palamu					81.4	5.6
Santhal Pargana					40.7	2.9
South Chottanagpur					50.7	3.6
Adjusted R square	-	**0.26**	-	**0.28**	-	**0.30**

Source: Estimated from Rural Jharkhand Baseline Survey Data.
Note: The dependent variable is "per capita consumption expenditure" for rural areas. The results represent OLS estimates.

Annex Table 4. 1: District-wise / Agro-climatic Region-wise Land Utilization in Jharkhand (1999/2000)

District	Geographical Area ('000 ha)	Forest Areas (%)	Land put to non Agr Use (%)	Barren and Unutilized Land (%)	Cultivable Waste Land (%)	Permanent Pasture and Other Grazing (%)	Land under Misc. Trees (%)	Other than Current Fallows (%)	Current Fallows (%)	Net Area Sown (%)	Cropping intensity (%)
I Central and North Eastern Plateau Zone											
Dumka	379.03	11.3	11.3	6.1	6.0	4.9	1.6	11.2	15.6	31.4	105
Deoghar	248.13	14.0	8.6	5.0	5.6	4.0	1.1	13.6	20.8	25.3	103
Godda	231.84	13.5	7.4	4.2	2.3	2.7	1.1	14.7	19.2	33.7	108
Pukar	181.7	11.4	8.6	6.3	4.1	3.1	2.4	10.7	19.1	32.4	107
Sahebganj	201.75	21.2	6.7	7.8	3.3	1.4	1.5	14.7	22.5	20.1	117
Jamatra	179.17	16.9	11.3	6.1	6.0	4.9	1.6	11.2	15.1	31.4	105
Hazaribagh	604.63	43.1	6.1	9.1	1.3	0.6	1.1	9.3	9.8	17.4	113
Koderma	130.2	42.4	6.3	11.3	1.5	1.1	1.4	6.9	14.1	13.9	121
Chatra	157.52	14.4	6.6	12.6	2.2	1.0	3.0	18.0	20.9	28.8	113
Giridih	493.22	32.1	6.8	6.2	3.6	2.0	2.6	11.2	17.0	15.7	121
Bokarao	288.97	25.0	15.9	8.7	3.6	0.8	1.0	12.0	25.6	5.5	163
Dhanbad	204.16	9.3	21.0	16.0	5.6	0.3	1.6	9.9	16.2	17.1	116
Sub total	3518.3	28.1	8.8	7.4	3.4	2.0	1.5	10.9	16.0	20.2	112
II Western Plateau Zone											
Ranchi	758.25	21.0	9.7	5.2	3.5	0.3	1.4	8.7	16.2	33.7	107
Lohardaga	153.62	28.9	6.1	6.1	6.5	0.0	0.8	10.9	11.2	32.1	112
Gumla	538.92	15.1	5.5	8.3	5.0	0.1	1.7	11.7	31.3	30.0	105
Palamu	524.69	43.2	3.7	6.0	1.9	0.4	1.4	9.2	14.9	18.7	121
Garhwa	428.82	44.6	3.5	5.8	1.5	0.7	0.5	9.1	18.6	15.1	138
Simdega	371.63	15.1	5.5	8.3	5.0	0.0	1.7	11.6	30.9	30.0	105
Latehar	319.19	43.2	3.7	6.0	1.9	0.4	1.4	9.1	14.9	18.7	121
Sub total	3095.1	29.0	5.8	6.5	3.2	0.3	1.3	9.9	20.3	25.9	112

District	Geographical Area ('000 ha)	Forest Areas (%)	Land put to non Agr Use (%)	Barren and Unutilized Land	Cultivable Waste Land (%)	Permanent Pasture and Other Grazing (%)	Land under Misc. Trees (%)	Other than Current Fallows (%)	Current Fallows (%)	Net Area Sown (%)	Cropping intensity (%)
III South Eastern Plateau Zone											
East Singhbhum	556.69	22.1	27.7	7.6	3.9	0.5	1.6	7.9	12.8	15.1	176
West Singhbhum	562.7	40.4	5.1	8.9	4.2	0.6	1.2	5.8	6.8	26.3	110
Saraikela	237.23	40.0	5.1	8.9	4.2	0.6	1.2	5.8	6.8	26.3	109
Sub total	1356.6	32.9	14.4	8.3	4.0	0.5	1.3	6.7	9.3	21.7	129
Jharkhand	7970.1	29.3	8.6	7.2	3.4	1.1	1.4	9.8	16.5	22.7	114

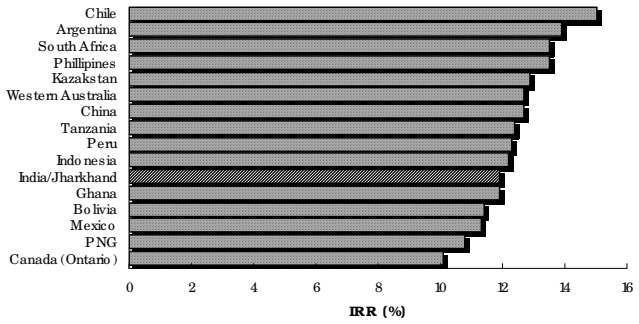
Source: Directorate of Statistics and Evaluation, Development Department, .GoB, Patna.

Annex Table 4. 2: Share of Different Crops in Total Cropped Area, 1999/2000

S.No	Crops	Jharkhand	India
1	Rice	68.65	23.93
2	Wheat	2.77	14.62
3	Maize	5.71	3.43
4	Ragi		0.92
5	Barley	0.59	0.42
6	Jowar	0.18	5.41
7	Bajra	0.2	4.69
8	Course and Other Millets	-	1.16
Total Cereals		**80.1**	**54.16**
9	Gram	0.92	3.34
10	Arhar	1.13	1.81
11	Kulthi	1.4	
12	Urad	1.92	
13	Pea	0.15	
14	Kesari	0.41	
15	Masoor	0.23	
16	Moong	0.13	
17	Other Pulses	0.7	6.46
Total Pulses		**6.99**	**11.61**
Total Foodgrains		**87.09**	**65.77**
18	Rape-Mustard	0.4	3.2
19	Linseed	0.35	0.37
20	Groundnut	0.28	3.67
21	Surguja	1.11	NA
22	Sunflower & Til and Other Oil Seeds	0.71	5.94
Total Oilseeds		**2.85**	**14.13**
23	Total Cash Crops	2.96	15.77
24	Fruits	1.56	1.77
25	Vegetables	6.99	2.56
Total Horticulture Crops		**8.55**	**4.33**
Total Cropped Area		**100**	**100**

Annex 4. 1: Reforms in the Mineral Sector

Figure 4. 1: Rate of Return Comparison

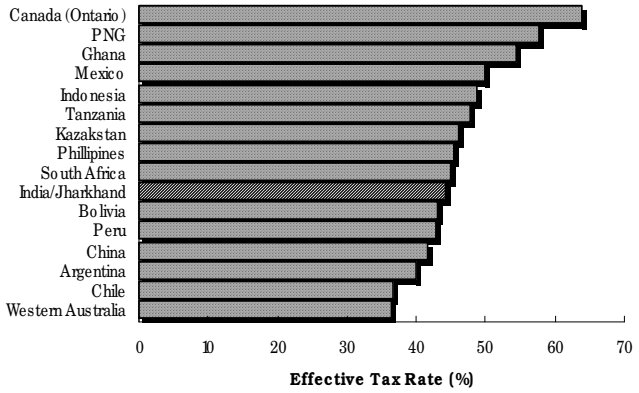


Source: Colorado School of Mines and Staff estimates.

- **Easy and transparent access to minerals under standard conditions applicable to all investors.** Introduction of a modern, computerized, on-line, rules-based mining rights **cadastre** as against the manual one operating out of 22 districts in Jharkhand will enable quicker and transparent access to minerals and securing appropriate mining titles.

- **Security of Mining Title.** Jharkhand's legal and regulatory framework, which is largely defined by the central government, has provisions that are inconsistent with the financial and technological requirements of the modern capital-intensive global mining industry. The new draft mining policy of the state needs to review some of those that are within the ambit of the state government.

Figure 4. 2: Effective Tax Rate



Source : Staff estimates.

- **Competitive Fiscal Provisions.** The level and stability of taxes does affect the decisions of private and international mining companies in their exploration efforts. In India, the tax regime is defined and administered by the central government. While income taxes are collected by the center and distributed through the central budget, royalties and sales taxes are retained by the states. To assess the current tax regime and quantify its potential impact on mining investment in Jharkhand, the total tax package was analyzed, regardless of how it is collected, and its impact assessed in a number of competing countries on a hypothetical but representative development of a large-scale base metal mine. The results of this simulation are summarized in Figures 4.1 and 4.2. While Jharkhand's tax regime appears to be generally competitive, its components are delicately balanced. For example, the five-year exemption period that applies to the mining sector should be balanced against the relatively higher income tax and import duty prevailing in the state.

The net investment return or internal rate of return (IRR) that could be realized by a hypothetical, large-scale base metal mine[144] developed in each of these countries is set out in Figure 4.2. The model holds revenues and costs constant for each country, so that the only variable is the country's tax regime. Accordingly, the IRR is a good indicator of the relative impact of each country's tax regime on a project's expected IRR. The IRR in Chile is among the highest because it does not impose a mineral royalty. In addition, with a corporate tax rate of only 15 percent, in such an analysis, Chile is consistently among the most attractive countries from a tax perspective, and consequently has been particularly successful in attracting investment, developing its mineral resources, and achieving above average growth. Indonesia's IRR on the other hand is among the lowest, mainly because its royalty is based on the volume of production, as is the case with some minerals and coal in India, and therefore is not sensitive to metal prices or operating costs and expenses.

- Based on these results, Jharkhand's tax regime is reasonably competitive when compared with other geologically prospective and mineral dependent regimes. Its tax regime is, however, delicately balanced and a change cannot be made to one component of the regime without modifying another component or other components, if international competitiveness is to be maintained. The government's share of net value added in Figure 4.9 shows the amount of taxes collected by the government as a percentage of pre-tax cash flow generated by the project over the expected life of the project, that is, the effective tax rate. When formulating tax policy, the government must be careful not to stray too far from international norms with respect to government share. While Canada's government share is relatively high, a substantial portion of Canadian taxes are collected in the latter part of mine life, due to 100 percent tax depreciation allowances and royalty exemptions during the first three years of production. Thus, the IRR of a mine in Canada is not as heavily impacted by the higher tax rates in that country as one might expect.

- **Comprehensive Social and Environmental Protection and Benefit Sharing.** Sustainable development in mining can be defined as transformation of mineral wealth into human capital that is, better health, education and vocational training, as also infrastructure and increased community capacity to sustain growth well beyond mine closure. Jharkhand's geography, specific demographics and lack of infrastructure pose additional challenges for sustainable mineral development, especially for tribal communities and environmental preservation.

[144] These include Chile which is generally cited as the best model for the modern development of a successful mining sector; Canada which has a mature and successful mining sector that is based on laws that reflect many decades of experience; and Indonesia and PNG, two Asian countries with excellent geology that compete with India to attract risk capital and foreign direct investment.

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