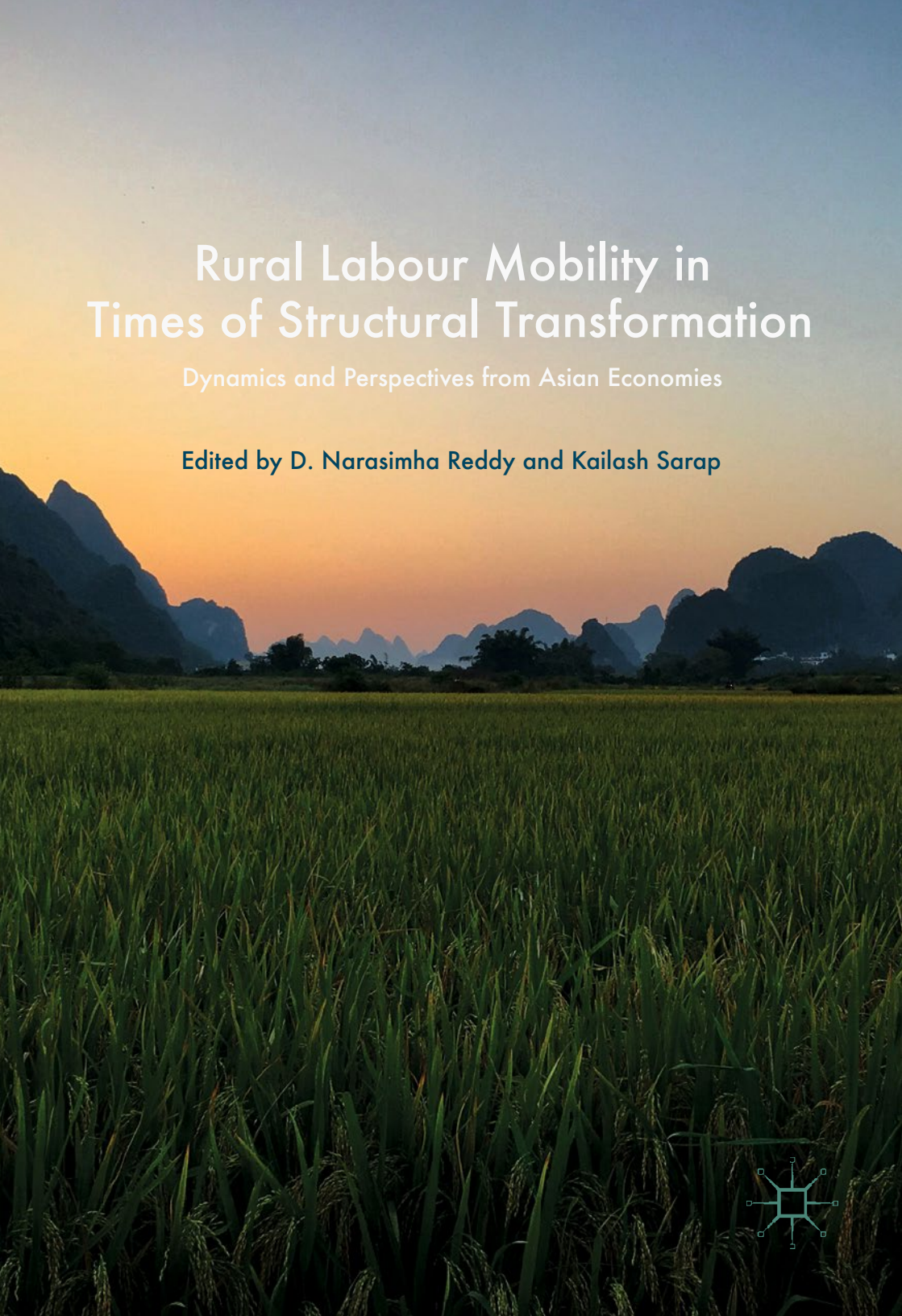
Rural Labour Mobility in Times of Structural Transformation

Dynamics and Perspectives from Asian Economies

Edited by D. Narasimha Reddy and Kailash Sarap



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D. Narasimha Reddy • Kailash Sarap
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Editors
D. Narasimha Reddy
Former S.R. Sankaran Chair
(Rural Labour)
National Institute of Rural
Development and Panchayati Raj
Hyderabad, India

Kailash Sarap
S.R. Sankaran Chair (Rural Labour)
National Institute of Rural
Development and Panchayati Raj
Hyderabad, India

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Foreword

Economic growth in developing counties, particularly in fast-growing Asian countries, is accompanied by sweeping structural changes. Rapid growth in Asian countries in recent decades has seen the shift of resources from agriculture to non-agricultural activities and the re-distribution of population among rural, semi-urban, and urban areas. The process is marked by a transfer of workers from sectors characterized by low productivity to sectors with higher levels of productivity. Such a process is also worsening income distribution. There is also a change in the structure of demand—the demand for services like financial and personal services has been increasing at a higher rate. These changes in the structure of production, demand pattern, and employment may be attributed to reforms undertaken in the recent period as well as to innovations which have taken place in information and communication technologies.

The pattern of structural transformation is not universal across developing countries. The fast-growing East Asian Countries such as the Republic of Korea, Malaysia, Taiwan, and China have experienced the transfer of labor from agriculture to industry, whereas the structural changes which have occurred in some of the Asian countries like India and Bangladesh do not conform to the same pattern of shift. As a result, the differential share of income and employment from agriculture, industry, and services is widening. The growth of the manufacturing sector which provides employment more to unskilled and semi-skilled workers has lagged far behind, whereas the less labor-intensive service sector which provides employment more to skilled educated labor has experienced very high growth. This is resulting in the slow expansion of formal employment by pushing most of

the workers to low-paying informal economic activities spread over rural and urban spaces. This process is also worsening income inequalities within the formal sector. In some Asian countries, employment in agriculture declined on account of mechanization, agricultural diversification from traditional food crops to commercial crops, stagnant growth, expansion of rural non-farm sector, and implementation of wage employment programs. Inadequate infrastructure in rural habitations and small towns in some Asian economies leads to large-scale migration to and congestion at large urban centers.

By contextualizing these aspects, the chapters in the present volume discuss in detail the nature of structural transformation and labor mobility in the Asian economies with a particular reference to India. Over the past two decades, there has been accelerated overall economic growth and considerable dynamism in labor mobility. Rural-urban migration is concentrated in metropolitan cities, thereby making the living conditions of migrant labor insecure and inhospitable. These changes could ensure neither decent work nor adequate public provision of health care and education. The chapters in the volume draw attention to the absence of a comprehensive development strategy that would address the transitional stage of economic development and evolve appropriate migration and urbanization policies that would facilitate mobility without huge social costs. I hope the book will be found useful by researchers, students, and policy makers.

Chairman, Advisory Committee R. Radhakrishna
S. R. Sankaran Chair, NIRD & PR
Hyderabad, India

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We are also grateful to the former and present Directors General Dr M.V. Rao, IAS and Dr W.R. Reddy, IAS for their keen interest and support. From the Conference presentations, papers relevant to the theme of this book were selected, reviewed, and revised for inclusion, and we are grateful to all the authors for their cooperation. Besides the paper writers, several eminent scholars actively participated in the deliberations of the conference which enriched the contributions included here, and we thank all of them. Our special thanks are due to Prof. R. Radhakrishna for having kindly agreed to write a foreword for this book. Finally, our thanks are due to Sagarika Ghosh, Nupoor Singh, and Sandeep Kaur of Springer India for their earnest cooperation and patience in bearing with our delays in getting the material ready.

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Contributors

Mukhopadhyay Abhiroop Indian Statistical Institute, New Delhi, India

Jinqing Cao Department of Sociology, East China University of Science and Technology, Shanghai, China

S. Chandrasekhar Indira Gandhi Institute of Development Research, Mumbai, India

Yuqin Huang Department of Sociology, East China University of Science and Technology, Shanghai, China

Hirway Indira Institute of Alternative Development, Ahmedabad, India

Rizwanul Islam Former, International Labor Office, Geneva, Switzerland

J. Jeyaranjan Institute of Development Alternatives, Chennai, India

Das Keshab Gujarat Institute of Development Research, Ahmedabad, India

P. Mamgain Rajendra Giri Institute of Development Studies, Lucknow, India

Ye Min School of Humanities, East China University of Science and Technology, Shanghai, China

Gao Ming Department of Cultural Studies, School of Liberal Arts, Shanghai University, Shanghai, China

Saha Partha School of Development Studies, Ambedkar University, Delhi, India

Sahu Partha Pratim National Institute of Rural Development and Panchayati Raj, Hyderabad, India

D. Narasimha Reddy University of Hyderabad, Hyderabad, India

K. Sahu Basant Faculty, Economics Area, Indian Institute of Foreign Trade, Qutab Institutional Area, New Delhi, India

Kailash Sarap S.R. Sankaran Chair (Rural Labor), National Institute of Rural Development and Panchayati Raj, Hyderabad, India

Verick Sher Singh ILO Decent Work Team for South Asia and Country Office for India, New Delhi, India

Sengupta Tathagata School of Mathematics, University of Hyderabad, Hyderabad, India

Bhan Singh Udai Amity Business School, Amity University, Jaipur, Rajasthan

G. Vijay School of Economics, University of Hyderabad, Hyderabad, India

About the Editors

D. Narasimha Reddy was formerly professor of Economics at the University of Hyderabad and former Professor, S.R Sankaran Chair (Rural Labor) at National Institute of Rural Development and Panchayati Raj (NIRD&PR), Hyderabad and ICSSR National Fellow. He is Visiting Professor, Institute for Human Development, New Delhi. His major publications include *Towards Understanding WTO Doha Development Round* (2005), *Labor Regulation, Industrial Growth and Employment: A Study of Recent Trends in Andhra Pradesh* (2008), *Agrarian Crisis in India* (2009 edited with Srijit Mishra) and "Contours of the Agrarian Question: Towards Political Question of 'the Peasantry' in Contemporary India" in *Critical Perspectives on Agrarian Transition* (2016, edited by B. B. Mohanty). His areas of interest include political economy of development, labor economics, and agricultural economics.

Kailash Sarap is currently Professor, S.R Sankaran Chair (Rural Labor) at the National Institute of Rural Development and Panchayati Raj (NIRD&PR), Hyderabad. Previously, he was a professor of Economics in Sambalpur University, Orissa. He has also been a visiting fellow at the University of Namur, Belgium, and Commonwealth Fellow at the University of Oxford. He has published a number of research papers in leading journals, including the *Journal of Peasant Studies*, the *Cambridge Journal of Economics*, *Development and Change*, *Economic and Political Weekly*, and *Indian Economic Review*. He has authored/edited four books including *Interlinked Agrarian Markets in Rural India* (Sage Publications). His research interests include agricultural economics, agrarian and labor relations, and natural resources management.

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CHAPTER 1

Introduction: Rural Labor Dynamics and Mobility in Times of Deepening Structural Transformation

D. Narasimha Reddy and Kailash Sarap

Toward a Framework for Analysis of Structural Change

Mainstream theories postulate development as a progressive transformation of predominantly subsistence economies into modern capitalist economies through a process of change in sectoral and spatial structures. Lewis's (1954) conceptualization of less developed economies as being characterized by economic dualism with islands of modern capitalist sector surrounded by an ocean of subsistence sector—where the marginal productivity of labor is zero in a wide range of activities and where there exists an unlimited supply of labor which can be shifted to modern sector at a given wage until the transformation toward development is complete—was often generalized, and the rural agricultural sector was equated with

D.N. Reddy (✉)
University of Hyderabad, Hyderabad, India

K. Sarap
National Institute of Rural Development and Panchayati Raj, Hyderabad, India

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the traditional subsistence sector and the urban industrial sector with the modern capitalist sector. Thus, the growth from underdevelopment to development was seen as a process of expansion of the modern urban industrial and non-agricultural sector by drawing surplus labor from the traditional rural agriculture sector until surplus labor was absorbed and wage levels tended to increase across the economy. In a stylized form, the point at which the transfer of surplus labor from agricultural (rural traditional) to industry (urban modern) is complete, resulting in rising wages in agriculture, and at which the industry faces labor shortage, resulting in rising wages, is referred to as the "Lewis turning point".

The Lewis model broadly fits into the image of development as involving structural shifts in labor and sources of production. Although the notion of development as structural shifts dates back to Fredrick List, the modern analysis of sectoral transformation originated with Fisher et al. (1939) and Clark (1940), who dealt with sectoral shifts in the composition of the labor force (Sirquin 1988). Fisher and Clark were the first to use the now-familiar division of the economy into primary, secondary, and tertiary sectors (Lundahl 1985) and relate the shifts in the shares of these sectors to the process of economic growth. They observed that, as economies developed and as the per capita incomes increased, there would be a shift in the workforce from the primary to secondary and then from the secondary to the tertiary sector. Their basic proposition on the relationship between economic development and structural change was predominantly empirical but they did relate it to certain causal effects. The sectoral shifts were explained in terms of (i) Engel's Law and (ii) the differential productivity of the sectors. Engel's Law explains that as incomes grow the income elasticity of demand for food and agricultural products grows at a progressively smaller pace than the income elasticity of demand for manufactured goods and services. Furthermore, the level and the rate of growth of productivity in the secondary sector are much higher than those in the primary sector, while productivity level and rate of growth of the service sector are much lower than those of the secondary sector. If these relationships hold, then the share of agriculture in employment will be greatly reduced. It will be followed by reduction in the share of the secondary sector. And eventually, with the process of growth, most of the workforce will be employed in the tertiary sector. Kuznets (1966), based on his empirical studies of long-run transformation of economies, synthesized the structural transformation as part of the stylized facts of modern economic growth. He described economic development as a process of

structural transformation involving transition from an economy dominated by agriculture to one that is urban, industrial, and service-oriented. Chenery (1960), based on empirical evidence from a cross-section of countries, tried to project Fisher-Clark propositions as a "normal" transformation in the structure of production. Besides the drivers on the demand side, Kaldor (1966, 1967) brought a supply-side dimension to the explanation of structural transformation by showing that since growth in agriculture is constrained by land which is subject to diminishing returns, industry with technological progress could act as the dynamic driver of growth.

The experience of the currently developed countries and even the relatively recent experience of some of the East and South Asian countries broadly conform to the theoretical framework summarized above. But the experience of several developing countries, especially in South Asia, in spite of rapid economic growth for over two decades, does not come close to the nature of classic transformation set out above. The major question that arises is whether the transformation process in these countries which have entered development processes in the post–World War II and the post-colonial era indicates any alternative paths? Or would there be a shift to the classic path after a further lag? There are no clear answers to these questions. Nonetheless, what is clear is that there have been rapid changes not only in terms of sustained higher growth, increasing diversification, and technological transformation across the sectors often accompanied by widening disparities which together do not suggest any clear path of change.

In this context, it becomes necessary to document the evolving changes in terms of their specific historical context before abstracting any discernable patterns of change that conform or offer an alternative path to the received wisdom of transformation. With this objective, the present volume focuses on transformation with specific reference to labor and employment structures across sectors and rural-urban areas in terms of their interrelatedness.

The book is divided into two parts. In the light of the broad theoretical underpinnings of transformation of developing economies, the first part, consisting of eight chapters, examines the nature of structural transformation in the Asian economies with a specific focus on certain aspects of dynamics of changes in rural labor structures, urbanization, and labor in the rural-urban continuum with reference to China, Bangladesh, and more extensively India. The second part consists of six chapters on rural-urban

labor mobility in India with particular reference to temporary or circular migration and the employment and living conditions of migrant labor in different regions.

Structural Transformation, Employment, and Alternative Pathways

The second chapter, by Rizwanal Islam, examines the nature of economic development in Asian economies within the framework of the "Lewis turning point" and the theoretical explanations of structural transformation by Fisher (1938), Clarke (1951), Kuznets (1966, 1971), and Kaldor (1966, 1968). The author acknowledges that the postulated structural changes in output and employment are reflected in the historical experience of the present-day developed countries and even some of the Southeast and East Asian countries which appear to have done much better in terms of the structural transformation as much as moving toward the "Lewis turning point". Turning to South Asian countries, with a particular focus on Bangladesh, the author finds that although there has been a decline in the share of output and employment in agriculture and a rise in real wages in agriculture, the persistence of a low share of industry, stagnant real wages in industry, high degree of underemployment, high absolute number of workers in agriculture, and high share of informal economy together indicate the persistence of surplus labor and hence no tendency of being close to the Lewis turning point. In the absence of industry as the driving force of structural transformation in Bangladesh, it explores whether there are any alternative modern sectors emerging as routes to Lewis transformation. But it finds that the role of the service sector, diversification into high-value crops in agriculture, increase in the share of rural non-farm sector, and rural-urban migration have not yet emerged as major sources of absorbing surplus labor in higher productive activities so as to assume alternative drivers toward an alternative path to structural transformation.

The third chapter, drawing attention to the growing consensus on recognizing the emerging reality of the rural-urban continuum in designing appropriate development policies, focuses on certain consequences of the recent phenomenon of small town–driven urbanization in India and its potential advantages in smoothening rural-urban mobility of labor as much as the spatial location of economic activities. It analyzes the rural-urban spillover of formal and informal organization of production and employment which shows a certain shift in the formal to rural even as

considerable sections of urban activities continue to be informal, indicating reduced skill-based mobility barriers to labor. Turning to the present state of rural-urban mobility of labor and the precarious employment and living conditions of temporary or circular migrants, the chapter points to the official apathy toward the existing reality of migration that keeps much of the temporary migration invisible without any reliable estimates of their magnitude. The chapter argues for a change in the official approach to urbanization and migration and for the need for evolving a comprehensive policy that would recognize the potential advantages of small town–driven growth of urbanization along with a combination of migration and commuting-based movement of labor.

The fourth chapter, by Cao, Huang, and Gao, reveals the complex intertwining between the changes in land institutions in China on the one hand and the emergence of a "peasant worker" class, rapid industrialization, and urbanization on the other. The first section of the chapter traces how the land institutions were changed to suit the interests of rapid industrialization and urbanization, and the second section analyzes how as a consequence there emerged a massive number of "peasant workers" as part of rural-urban migration with severe challenges to their status and conditions of living, even as this process improved employment and earning opportunities. The analysis shows how, through the abolition of the people's commune system and its replacement with "household contract responsibility system" in the 1980s, the land rights shifted from the collective to the household; the ultimate ownership was still vested in the state authorities. The local authorities use these powers to acquire peasant land for the purposes of industrialization and infrastructure development at rates of compensation highly exploitative to peasants but highly lucrative for local authorities and investors, which did propel rapid rates of growth. This process, which is described as "material centred urbanisation" and which is facilitated by the nature of land law along with the Chinese household registration system that divided rural and urban areas, creates a massive class of urban workers known as "peasant workers", who are permitted to work in cities but not allowed to obtain urban registration that would entitle them to urban citizens' rights, including the right to urban property, social protection, and welfare. The authors find that, although there were efforts in recent years to infuse "people-centred urbanization strategy" by relaxing the entitlement of urban registration to "peasant workers", these are found to be mostly confined to relatively small and medium urban centers that may not address the problem which is more

acute in larger cities. This process of what may be called "urbanisation of workers lagging behind industrialisation of workers", the authors suggest, should be integrated by a two-pronged strategy of extending educational facilities to the children of "peasant workers" on par with the other urban citizens' children and providing social security for peasant workers. Finally, it is observed that since the Chinese economy has reached the "Lewis turning point" and the Chinese strategy has shifted to "the New Normal Economy" with growth at medium speed, and with the upgrading of low and middle levels of economic structure to upper level, there could be modification of land institutions and urban registration that would overcome the anomaly of "peasant workers".

The role and nature of agriculture in the peri-urban or urban fringes have been aspects of growing interest in the discussion on the urban-rural continuum in China. The fifth chapter, by Ye Min, focuses on agriculture in the urban fringes of Shanghai and the conflict between the small-farmer interests and the interests of local government authorities. He brings out the growing preference of urban policy makers in favor of agricultural companies and cooperatives and against small farmers. As a result, there has been a growing share of the former institutions in the peri-urban agriculture in Shanghai. Ye Min brings out that the policy preference in favor of companies or cooperatives is not so much because of "economies of scale" that these big organizations offer but because of the vested interests of the urban authorities toward recording good governance that is supposed to be reflected by organizational effectiveness and better transaction costs afforded by the companies and cooperatives. Such a preference in policy, the author says, is being driven by "politics of scale" rather than "economies of scale". The author argues that given the nature of agricultural operations which require sensitivity to natural conditions and the need for small-scale dispersion, especially in the urban fringes that cultivate fruits and vegetables, the reasons of efficiency in governance may not be fair to drive out small migrant farmers.

While theoretical explanations and empirical evidence from not only developed but several developing countries suggest that manufacturing acts as an engine of growth in absorbing surplus labor from agriculture, the experience of countries like India has been very disappointing in this regard. The sixth chapter, by Keshab Das, analyzes the prospects of promotion of rural manufacturing through the strategy of "rural industrial clusters" and analyzes the experience of two industrial clusters on the basis

of informal sources of information, due to lack of any official statistics. The chapter begins with an analysis of trends in rural employment structure. The findings show that over the years, although there has been a substantial increase in the share of the non-farm sector in overall rural employment, the rise in the share of manufacturing has been negligible. Although there has been a phenomenal increase in the number of MSME (Micro, Small and Medium Enterprises) units in rural areas like handlooms and handicrafts, about 95% of which are informal and most of which are craft-related, most of the craft clusters suffer from limited or no access to institutional finance, technology support, business infrastructure, and access to wider markets. And most lack even basic amenities like electricity. The state policies have hardly helped. Under these circumstances, there exists very limited room to aspire for decent work in these activities. He concluded that looking for improved labor conditions in these clusters would be a misplaced hope.

The relatively slow process of urbanization in economies like India has prompted scholars to examine whether the process of development in these countries, instead of experiencing a shift in labor force from agriculture in rural areas to non-agriculture in urban areas, is taking the form of a shift within rural areas toward more of a rural non-farm sector. Questions are also raised as to whether the increase in the share of the rural non-farm sector could be an alternative path of structural transformation or whether it is a reflection of "stunted" structural transformation. The seventh chapter, by Saha and Verick, looks at the changes in the rural labor structure with specific reference to rural non-farm sector employment. First, it finds a significant shift in favor of rural non-farm employment in both principal status and subsidiary status, and while principal status is driven by male workers' share, the subsidiary share witnessed a substantial increase in female labor. Then the chapter turns to examine the shift toward non-farm across classes, activities, and quality. The shift from agriculture to non-agriculture is more pronounced among poorer households; construction is the major absorber of labor in the non-farm sector but is increasingly casual in nature. An interesting finding is that while manufacturing employment, though low in share, is moving more toward wage employment (both salaried and casual wage), construction is moving significantly toward casual wage employment, and the service sector is moving more toward self-employment and salaried wage employment, and there is a significant decline in casual wage employment. The substantial shift from agriculture

to non-agricultural employment, especially among poorer households, mostly into casual work suggests that the major character of the quality is that of increasing casualization of non-farm work.

In a society like India with a high degree of social stratification and discrimination, one of the markers of inclusive growth is the extent to which the socially marginalized groups are able to access better employment and entrepreneurial opportunities. The eighth chapter, by Sahu, focuses on the extent of own-account, informal, and formal entrepreneurial opportunities available to the two socially and economically underprivileged groups in India, namely Scheduled Tribes (STs) and Scheduled Castes (SCs). Since there is no single and consistent source of data available, the author examines a wide range of sources that are available over a period of time from 1994–95 to 2010–11 and concludes that the proportion of enterprises owned and managed by the SCs and STs is disproportionately low compared with their share in population. Furthermore, even the low share is confined to very few product lines with low productivity and social stigma, like leather, repair services, textile and wearing apparels, and wood and wood products. In spite of several state-sponsored programs, there has not been any significant improvement in the participation of these communities. While there is a pointed indication that caste differentiation persists in the participation of these communities in private business activities, any policy intervention toward improvement in the situation, the author concludes, should begin with a comprehensive database focusing on the disadvantages and discrimination faced by these communities.

Challenges of Migration and Urbanization

The second part of the book, as mentioned earlier, consists of six chapters that deal with the nature of rural-urban migration in India. Chapter 9, by Chandrasekhar and Mukhopadhyay, focuses on rural employment diversification and rural-urban commuting. Their estimates based on National Sample Survey Office data for 2009–10 show that about 13% of rural workers and an equal proportion of urban workers commute for work. While the majority of rural commuting to urban areas is for work, the majority of urban resident workers commute to both urban and rural areas. Turning to localized studies, they find a significant rise in out-of-village work, in particular to nearby places and cities and towns. In the case of those who moved to non-farm self-employment or non-farm casual labor, there has been an increasing tendency to commute for work outside

the village. Discussing the welfare implications of short-term migration and commuting, they find the consumption standard of the commuters to be better than that of short-term migrants. In light of evidence of growing mobility for work between rural and urban areas, the authors suggest increased investment in affordable mass transport connecting rural and urban areas.

Each of the five chapters (10–14) that follow focuses on migration in four different regions. The tenth chapter, by Mamgain and Reddy, is on out-migration from the hill region of Uttarakhand. Based on a large household survey spread across 18 villages in two hill districts, the findings show that about 35% of the adult population migrate; the incidence of migration among male members is higher (50%) but is only 14% among females. Much of the migration (73%) is for a period of six to twelve months, although long-term migration for more than twelve months is also high (17%). A somewhat disturbing aspect of migration in the state is permanent out-migration, which is a kind of abandoning of the villages. Of the villages surveyed, 36% of households left the villages permanently during the past ten years. The proportion of households (51%) leaving permanently is largest among Brahmins but is relatively less (20%) among SCs. Significantly, most of the Uttarakhand migrants are in salaried work, although about 70% of this work is in low-paid petty jobs. There is hardly any migration for manual work. Barring villages which experience permanent migration of entire households, most of the others receive modest remittances which are used primarily to meet daily household consumption needs. About 60% of remittance-receiving households use it to meet education- and health-related expenses. There has been a significant reduction in the poverty level in the state. But still the state suffers from inadequate employment facilities, especially for the educated.

In Chap. 11, Sahu presents the results of a study of circular labor migration as an ex-post coping strategy against drought in two districts of Odisha. The study is based on a household survey spread over four villages in the two districts. The study finds extensive crop, employment, and income loss due to drought, and about half of the households resort to migration to cope with it. Although large land owners cope with drought without migration, the incidence of migration ranges from 50% to 78% among other classes of cultivation and is as high as 90% among landless households. About 85% migrate out of the state. Most of the tribal migrants end up in brick kilns and construction work, whereas non-tribal migrants from landless and marginal farmer households secure construction

and agriculture work, and small and medium cultivators manage to secure temporary skilled and service work. Since the timing and quantum of employment under the MGNREGS (Mahatma Gandhi National Rural Employment Guarantee Scheme) do not match the local requirements, the scheme fails to reduce migration. Although the majority of women do not migrate, those left behind face the additional burden of not only attending the household work but also seeking locally available work. Since migration is facilitated through advances from labor contractors, substantial earning from migration is also squeezed out in the form of high interest rates.

Chapter 12, by Hirway and Singh, is on migrant labor in Gujarat with particular reference to construction and textiles in Ahmedabad and the diamond cutting industry in Surat. Construction work in Ahmadabad draws migrant workers from as many as eleven states other than Gujarat. The majority of migrant workers in the power loom industry in Ahmedabad are from three states: Uttar Pradesh (51%), Rajasthan (12.5%), and Bihar (11.5%). The migrant workers in diamond cutting in Surat are mostly (80%) from Gujarat. The earnings of migrant workers are highest in diamond cutting since the work is skilled and the value added is high. The monthly wage incomes of diamond industry workers are almost twice those of textile workers and 1.7 times those of construction workers. The social security measure of compensation for injury due to accident at the workplace is available to less than one fifth of construction workers, and coverage is a little higher for textile workers and diamond workers, but in all cases the compensation is much less than actual expenses. Coverage under other social security measures like provident fund, insurance for life, and weekly holiday are very meagre in all industries. The housing condition of construction works is abominable, while a third of textile workers and most of the diamond workers live in "pucca" houses. Remittances are more among construction workers who are relatively poorer. Substantial parts of remittances go for consumption smoothing. To improve the condition of migrant workers, the authors suggest measures to improve skill levels of the workers and better social security. The authors argue that mobilization of migrant workers would also help by giving a better bargaining position to secure better terms of employment and social security.

Chapter 13, by Jeyaranjan, discusses the working and living conditions of temporary or seasonal rural to urban migrants in the Chennai region. The study is based on a sample survey of migrant workers in construction, manufacturing, and service sectors. All of the sample workers are

inter-state migrants, and the largest proportion are from Assam (23%) followed by Odisha (14.6%), West Bengal (14%), and Bihar (13.7%). The rest are from a few other states, including Tripura. Half of the sample migrants are from the SC community. The "others" constitute 1%. Almost two thirds of the workers in construction are illiterate, and more than 55% in manufacturing have at least a high school education. About 83% of migrant workers are motivated by the need to avail themselves of better opportunities of earning and to meet their lump-sum money requirements. The majority of migrant workers work for nine or more hours in a day, and the longest workday is in construction, where about a quarter of workers work for as long as 13 hours a day. The average monthly earnings range from about Rs. 6300 in construction to about Rs. 7770 in services. All of the sample workers are casual workers and work without any contract. Only about 5% receive a bonus and food allowance in the service sector; in the rest of the cases, there are no non-wage benefits. Certain social security benefits like Employees Provident Fund is available for about one fifth of workers and Employees' State Insurance to about 15%. Less than 1% get paid leave. The commitment of the migrant workers is to help their households appear to be of high priority to them. On average, each migrant sends home about 58% (Rs. 4065) as remittance of the average monthly earnings of about Rs. 7000. The darker side of migrant workers' life as evidenced from Chennai is the discrimination that they suffer from the official machinery that keeps them in a state of incomplete citizenship. They are forced to live without basic amenities and in the poorest living environment. The author proposes the constitution of a separate welfare board for migrant workers by collecting a special cess from all of the employers to finance its activities. The state, he recommends, should realize the significant contribution of migrant labor to the booming economy of the state and, instead of merely policing migrant labor, should evolve appropriate policies to integrate them into their governance.

The last chapter, by Sengupta and Vijay, presents the results of their study based on a sample survey of migrant worker households in brick kilns. While the largest proportions of these households are from SCs (58%), STs (19%), the Other Backward Classes (22%) constitute the rest. The process of migration begins with the advances made by the labor contractors to these households. These advance contracts ensure the supply of labor to the brick kilns. At the brick kilns, the average workday stretches to 15 hours. In addition, women workers have to perform all

domestic work, which takes two hours every day. The work is hazardous and prone to accidents like electrocution, but there exists no accident insurance. The workers live inside the brick kiln premises in shacks with some lighting but no toilet or sanitary facilities. At the end of six months of work in the kilns, in the case of over a third of the workers, earnings would not be sufficient to repay the debt incurred to start their journey for brick kilns and hence they return home with a net debt. The rest of the workers will hardly have much left to keep them alive when they return home for the rest of the six months.

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PART I

Structural Transformation and Labour Dynamics

CHAPTER 2

Structural Transformation and Alternative Pathways to the Lewis Turning Point

Rizwanul Islam

Introduction

In developing countries, open unemployment rates are often found to be low and are not very helpful in understanding the real employment challenge faced by them. In such situations, the employment challenge needs to be looked at not only in terms of overall numbers because an important aspect of the process of economic development is transfer of workers from sectors characterized by low productivity to sectors/activities with higher levels of productivity and a rise in the incomes of workers through the process of structural transformation. It may be recalled that theories of economic development in countries characterized by dual economy (*à la* models of Lewis 1954 and Ranis-Fei 1961) postulate that the process of development involves a transfer of labor from traditional sectors (for example, agriculture) to modern sectors (for example, industry).

A critical point in the development of an economy with surplus labor is where the traditional sector (which is the reservoir of such labor) starts facing a shortage of labor, the modern sector is no longer able to hire workers

R. Islam (✉)
Former Special Adviser, Employment Sector, International Labor Office, Geneva, Switzerland

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without raising the real wages, and the margin between the wage rates prevailing in the two segments of the labor market starts increasing. In an analysis of the degree of success attained by an economy in absorbing its surplus labor through industrialization and development, it would be important to examine whether it has reached such a point (which in the development literature is usually referred to as the "Lewis turning point"). The experience of countries (especially countries in East and Southeast Asia (ESEA), such as the Republic of Korea, Malaysia, and Taiwan-China) that have been successful in achieving economic growth shows that the process of development is indeed characterized by a transfer of labor from agriculture to industry and the attainment of the so-called Lewis turning point.[1]

But the process described above has not been the universal experience; in many developing countries, even respectable rates of economic growth have not been accompanied by similar rates of employment growth and transfer of workers to sectors with higher productivity. This has been due to a variety of factors, including slow growth of manufacturing industries, premature decline in their growth, and slow rate of growth of labor-intensive industries. Some countries have witnessed impressive growth of the service sector while others have attained success in non-crop agriculture and non-farm activities in rural areas. The variety in the experiences of developing countries raises the question of whether there are alternative approaches to structural transformation and absorption of surplus labor. This general question may be broken down into specific questions like the following.

- Does the "modern sector" mentioned in dual-economy models have to mean manufacturing, or it can be interpreted more flexibly to include other sectors like trade and services?
- Is transfer of surplus labor from traditional to modern sector synonymous with migration from rural to urban areas, or can workers find higher-productivity activities within rural areas or in semi-urban areas?
- Depending on the answers to the second question, couldn't the real world consist of rural, semi-rural, semi-urban and urban areas rather than two clearly identified segments that are traditionally designated as rural and urban areas?
- However, even if the answers to the questions posed above indicate the existence of alternative ways of attaining structural transformation and of reaching the Lewis turning point in dual economies, the effectiveness and speed with which such pathways could lead to the goal remain important questions.

The basic purpose of the present chapter is to address some of the above questions with reference to developing countries in Asia and to Bangladesh in particular. The chapter is organized as follows. The section "Structural Transformation: Some Theoretical Underpinnings" summarizes some theoretical underpinnings behind the analysis of structural transformation. The section "Structural Transformation: Some Empirical Evidence" presents empirical evidence on structural transformation of present-day developed countries as well as developing countries of Asia. As for the latter, the focus is on variation in the experience regarding the journey toward the Lewis turning point. Section "The Journey Toward the Lewis Turning Point: The Case of Bangladesh" focuses specifically on the experience of Bangladesh in attaining structural transformation of its economy and attaining the Lewis turning point. In doing so, the possibility of alternative pathways is explored. The chapter ends with a section "Concluding Observations".

Structural Transformation: Some Theoretical Underpinnings

Notable among those who have provided some theoretical explanations of structural transformation in growing economies are Fisher (1939), Clarke (1951), Kuznets (1966, 1971), and Kaldor (1966, 1967). The first three of them have explained the matter basically from the demand side. In that regard, they refer to Engel's Law postulating that with increases in incomes, demand for food (and hence, agricultural commodities) increases less than proportionately while that for industrial goods like clothing and consumer durables, increases more than proportionately. Again, at a higher level of income, demand for services like financial and personal services tends to increase at higher rates. As the pattern of demand changes, the structure of demand changes accordingly, thus creating conditions for a decline in the share of agriculture and a rise in the share of manufacturing at the early stage of growth and then a decline in the share of manufacturing and a rise in the share of services at the subsequent stage of growth. As the structure of production changes, the structure of employment should change accordingly.

Kaldor, on the other hand, looks at the issue from both demand and supply sides. His framework starts by recognizing the standard classification of an economy into broad sectors like agriculture, industry and services and focusing on their respective characteristics. Since agriculture is

more dependent on land and the latter is subject to diminishing returns to investment, there is a limit to increase in productivity (and hence production) in the sector. But this limitation of agriculture does not usually apply to manufacturing, and hence growth in the latter can be much higher than in the former. As a result of the operation of these forces, manufacturing usually plays the role of the engine of growth in developing economies.

Like in Lewis's model, Kaldor's framework features transfer of workers from agriculture to industry without an adverse effect on the output of the latter. As a result of this as well as the use of modern technology, productivity increases in agriculture. Productivity increases in industry also because the sector is capable of reaping the benefits of economies of scale and technical progress. However, productivity growth in manufacturing is expected to be higher than in agriculture. From that, three hypotheses follow:

- Overall economic growth is influenced more strongly by manufacturing growth than growth of agriculture.
- In manufacturing, productivity growth drives growth of production.
- Given the spillover effects of manufacturing, expansion of the sector helps raise productivity growth in the economy as a whole.

Whether it is a demand-driven framework as provided by the explanations of Clarke, Fisher, and Kuznets or a combination of demand- and supply-side forces as in Kaldor's framework, structural change in a growing economy is expected to follow the pattern depicted in a stylized manner in Fig. 2.1. To sum up the above discussion, as an economy grows over time, the share of agriculture in gross domestic product (GDP) is expected to register a secular decline while that of services a secular rise. But the share of manufacturing is expected to rise up to a point and then decline. A critical issue in this regard is the point at which the share of manufacturing starts declining. The timing and level of development (per capita GDP could be taken as an indicator of the latter) at which this happens may vary from country to country (Islam and Islam 2015). And that can happen due to a variety of reasons.

As for the demand-based explanation mentioned above, given the possibility of imports in an open economy, a part of the growing demand for manufactured goods can be met through that channel. In a country following that strategy, manufacturing industries may not grow in tandem with the growth of demand for products of that kind.

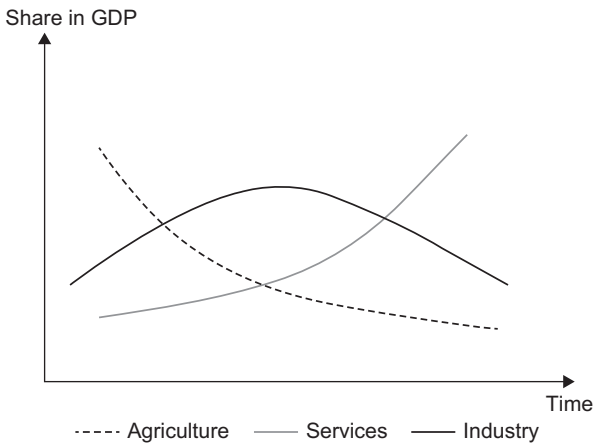

Fig. 2.1 Changes in the share of different sectors in GDP

On the other hand, demand for the products of the service sector does not have to remain confined to the domestic market alone. Although services are generally considered to be non-tradable, this does not apply to services that are based in information and communication technology. Based on such possibilities, there is a growing literature that questions the conventional sequence of "agriculture followed by industry and then services" in the analysis of structural transformation of economies.[2]

Structural Transformation: Some Empirical Evidence

Developed Countries

The outline provided above of structural changes in output and employment appears to be reflected in the historical experience of present-day developed countries. For example, structural change experienced by countries like France, Germany, the UK, and the USA shows a roughly similar pattern: decline in the share of agriculture accompanied by an increase in the share of industries at the initial stages of growth and a decline in the share of industries at a subsequent stage along with increase in the share of services. The share of agriculture in GDP ranged from a third to half in the UK during the early part of nineteenth century, in France in 1835, and in

the USA in 1872. This went down to about a fourth during the subsequent 75 to 100 years and to around 5% toward the end of the twentieth century. On the other hand, the share of industry went up to 50% and by the end of the twentieth century declined to 30%. By then, the share of services increased to 70%.[3] One notable feature of that structural change was a similar change in the structure of employment, and the share of different sectors in total employment remained close to that in output. That implies that economic growth did not result in a major difference in labor productivity in different sectors.

Figures in Table 2.1 show that the pattern of structural change described above continued during the past decade as well. The share of agriculture declined further to between 1% and 2% while that of services increased further to 78–79%.

The change in the structure of employment also continued, although some gender-related differences are noticeable. In the manufacturing sector, the share of men is higher than that of women, whereas the opposite is the case in services. It seems that women are not being attracted to the industrial sector.

In the currently developing countries, development in some of them seems to have followed a pattern similar to that of the developed countries mentioned above. Data for some Asian countries presented in Table 2.2 show such a pattern for Republic of Korea, Indonesia, Malaysia, and Thailand. In these countries, the decline in the share of agriculture and increase in that of industries have been quite notable. Quite clearly,

Table 2.1 Share (percentage) of different sectors in total GDP and employment in selected developed countries of the world

Country	*Share in GDP (2010)*			*Share in employment (2007–10)*					
	Agriculture	*Industry*	*Services*	*Agriculture*		*Industry*		*Services*	
				Male	*Female*	*Male*	*Female*	*Male*	*Female*
Australia	2	20	78	4	2	32	9	64	88
France	2	19	79	4	2	33	10	63	88
Germany	1	28	71	2	1	40	14	58	84
Japan	1	27	72	4	4	33	15	62	80
UK	1	22	78	2	1	29	7	68	91
USA	1	20	79	2	1	25	7	72	92

Source: World Bank: *World Development Indicators, 2012*

Table 2.2 Change in the sector composition of GDP in selected developing countries, 1960–2010

Country	*Agriculture (percentage)*		*Industry (percentage)*		*Services (percentage)*	
	1960	*2010*	*1960*	*2010*	*1960*	*2010*
Bangladesh	53	19	11	28	36	53
China	22	10	45	47	33	43
India	43	19	20	26	38	55
Indonesia	51	15	15	47	33	38
Malaysia	34	11	19	44	46	45
Nepal	65	36	11	15	23	48
Pakistan	46	21	16	25	38	53
Philippines	26	12	28	33	47	55
Republic of Korea	38	3	18	39	43	58
Sri Lanka	28	13	21	29	51	58
Thailand	36	12	19	45	45	43

Source: World Bank: *World Development Indicators 2004* (CD-ROM), *World Development Report 1990*, and *World Development Indicators 2012*

manufacturing in these countries has acted as the engine of growth. But the experience of the countries of South Asia has been different. In Bangladesh and India, for example, the decline in the share of agriculture has not been followed by a similar increase in the share of industry; the increase has been more than proportionate in services. This is particularly the case when one looks at the structure of employment (Table 2.3).

In order to understand the pattern of structural change in the economies of Bangladesh and India (and their contrast with countries of ESEA), it would be useful to look more closely at their growth rates and pattern. In Bangladesh, there has been a steady acceleration in economic growth since the 1990s: from an annual GDP growth of less than 5% per annum, the country reached 6% growth in a decade. In 2003–04, the growth rate exceeded 6% and since then has hovered around that mark. Although GDP growth appears to have reached a plateau in recent years, it has remained over 6% per annum. Economic growth in India has been more impressive, especially since the mid-1990s. GDP growth rate started accelerating since 1994–95 and ranged between 6% and 9% per annum in most years after that.

Despite such impressive rates of GDP growth, the slow rate of structural transformation in employment observed from Table 2.3 is something

Table 2.3 Change in the sector composition of employment in Bangladesh and India, 1983–2010

	Agriculture	*Industry (manufacturing)*	*Services*
Bangladesh			
1983–84	58.7	10.5 (8.8)	30.5
1990–91	51.7	18.5 (17.0)	29.8
1999–2000	50.7	12.3 (9.5)	36.2
2005–06	48.1	14.2 (11.0)	37.5
2010	47.5	17.3 (12.4)	35.3
India			
1983	68.3	13.8 (10.7)	17.6
1993–94	64.0	15.0 (10.7)	21.1
2004–05	56.5	18.7 (12.2)	24.8
2009–10	51.1	21.4 (11.5)	26.7

Sources: (i) Bangladesh Bureau of Statistics: *Labour Force Survey*, various years

(ii) National Sample Survey Office, *India: Employment and Unemployment Situation in India*, various rounds

to take note of. In order to understand this, one has to look at the pattern of growth and its drivers. One particular element in that is whether manufacturing has acted as the driver of growth (as discussed in the section "Structural Transformation: Some Theoretical Underpinnings" above). In Bangladesh, there has been very little difference between overall GDP growth and growth in manufacturing during 1995–96 and 1999–2000. The ratio increased to about 1.5 during 1999–2000 to 2005–06 but declined to 1.23 during 2005–10.[4]

In India also, industry has not emerged as the driver/engine of economic growth. The elasticity of manufacturing growth with respect to GDP growth actually declined from 1.14 during 1990–2000 to 1.09 during 2000–2010.[5] In the Republic of Korea, the corresponding figure was over 2 during the 1960s, 1.8 during 1970–80, and 1.4 during 1980–90. In Malaysia also, the figure was between 1.5 and 1.8 during 1970–96 (Islam 2008).

Second, in India, the share of some labor-intensive industries (for example, wearing apparels, textile, and leather and leather products) in total exports actually declined during 1990–2009 (UNCTAD 2012). And that of capital-intensive industries like basic metals, chemicals, machinery, and motor vehicles increased. That implies that trade liberalization does not necessarily lead to specialization in and exports of labor-intensive goods.

The Journey Toward the Lewis Turning Point: The Case of Bangladesh

Is the Country Close to the Lewis Turning Point?

As mentioned earlier, in the context of models of dual economy with surplus labor, trends in real wages are usually regarded as a basic indicator of whether an economy has reached the Lewis turning point. But it has also been pointed out (for example, by Islam 2014) that real wages may rise for a variety of reasons even before the exhaustion of surplus labor, and hence alternative indicators should be used to gauge the existence of surplus labor. In that context, mention may be made of (i) the degree of unemployment and underemployment, (ii) the trend in the absolute number of workers engaged in agriculture, and (iii) the proportion of employment in the informal economy.

In recent years, especially since 2007–08, there has been a rise in real wages in some sectors (for example, in agriculture and rural areas in general). That has given rise to some discussion on tightening of the rural labor market in Bangladesh and possible shortage of labor. But before one comes to such a conclusion, it would be important to take a careful look at all relevant data, including that on real wages. Unfortunately, official sources provide data on real wages only up to 2008/09. Figure 2.2 presents the picture in this regard for the period of 1990/91 to 2008/09.[6]

A few interesting points may be noted from the picture emerging from Fig. 2.2. First, there has been a rising trend in real wages—overall as well as in agriculture and manufacturing—since 2000–01. This seems to be a positive development from the point of view of improving the living conditions of workers as well of reaching the Lewis turning point. But before drawing such a conclusion, one should look carefully at the trend revealed by Fig. 2.2. A careful look would bring out a couple of interesting points. First, although real wages started to show an upward trend, there was a flattening after 2003–04 for a few years, and the rise started again in 2007–08. The latter year witnessed sharp increases in the prices of food grains in the global market, the impact of which was felt in the local market as well. However, instead of real wages being depressed (which may have been natural), they rose since then. That may lead one to conclude that the labor market in Bangladesh has tightened and the rise in real wages is a reflection of that. But if that were the case, why did real wages remain flat during 2003–04 to 2006–07, which was a period of high

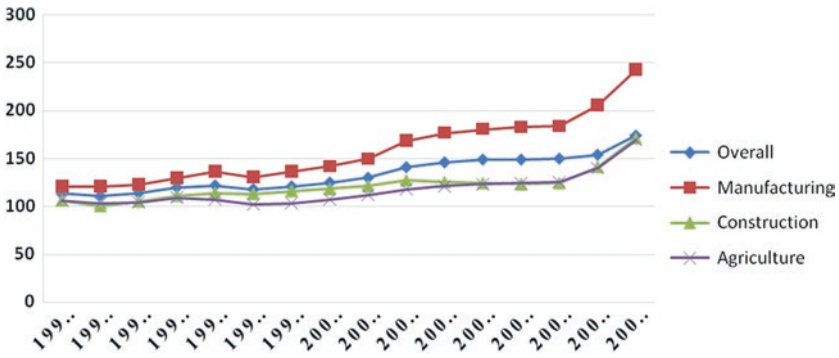

Fig. 2.2 Bangladesh: trends in real wages, 1991–92 to 2008–09
Source: Constructed by using data from Ministry of Finance, Government of Bangladesh: *Bangladesh Economic Review 2014* (in Bengali)

Table 2.4 Bangladesh: indices of real wages, 2006–07 to 2011–12 (2005–06 = 100)

Year	*Overall*	*Industry*	*Construction*	*Agriculture*
2006–07	100.68	100.90	101.39	100.53
2007–08	102.57	103.02	104.54	102.07
2008–09	114.79	114.33	120.34	115.86
2009–10	115.40	112.97	119.29	121.65
2010–11	110.96	106.26	116.08	123.17
2011–12	114.49	113.20	141.43	128.73

Source: Prepared by the present author by using data on nominal wages and consumer price indices (CPIs). For overall and industry and construction, the urban CPI has been used; for agriculture, the rural CPI has been used. Data are from Ministry of Finance, Government of Bangladesh: *Bangladesh Economic Review 2014* (in Bengali)

growth for the economy of Bangladesh? So rather than hastening to conclude that the rise in real wages since 2008 reflects a real tightening of the labor market, it is important to examine whether the trend has been sustained over a considerable period of time.

As the official real wage series is available only up to 2008–09, the present author has made an attempt to estimate real wages (of course, by using official data on nominal wages and consumer price index) for a few years after that. Estimates made by the author for 2006–07 to 2011–12 are presented in Table 2.4.

Data in Table 2.4 indicate that it is only in agriculture that the rise in real wages has continued after 2008–09. For industry, the indices for both 2009–10 and 2010–11 were lower than that for 2008–09. Although there was a rise again in 2011–12, the index for that year was below that of 2008–09. It thus seems that there are no clear signs of a sustained increase in real wages in the industrial sector. That implies that it is still possible to continue hiring workers without raising real wages. Hence, it would be premature to conclude on the basis of real wage data alone that Bangladesh has reached or is about to reach the Lewis turning point.[7]

As for alternative indicators of the progress toward reaching the Lewis turning point, the situation regarding unemployment and underemployment does not point to a clear trend. Although the overall figures indicate a decline in the degree of underemployment during the period of 2005–10 (from 24.5% to 20.3%), a closer look at the data shows an increase in male underemployment rate (from 10.9% to 14.4%). As for female underemployment, the observed decline (68.3% to 34.1%) may be more of a statistical illusion[8] than indicative of real improvement (Islam 2014).

The proportion and absolute number of people engaged in agriculture have also been suggested as alternative indicators of the existence of surplus labor in agriculture. Data on these aspects do show a decline in the share of total employment in agriculture. However, there has not yet been a decline in the absolute number of people engaged in the sector. Instead, between 2002–03 and 2010, there has been an increase in the total number in agriculture (including fishery and forestry) from 22.9 million to 25.7 million.

Coming to the third alternative indicator of surplus labor (that is, employment in the informal economy), between 2002–03 and 2010, there has been a substantial increase in both the absolute number and the proportion engaged in the sector (from 78% to 87%). It has also been shown that vulnerable employment (indicated by own-account workers and unpaid family workers) as a proportion of total employment has increased over time (Islam 2014).

To sum up, the basic indicator of surplus labor, namely real wages of unskilled workers, does not point decisively to a tightening of labor market to indicate that the economy of Bangladesh either has attained or is close to the Lewis turning point. Furthermore, all the three alternative indicators—namely underemployment, employment in agriculture, and employment in the informal economy—tend to indicate the continued existence of surplus labor in Bangladesh.

Is Lewis Transformation Possible Through Alternative Routes?

As mentioned already, models of development with surplus labor postulate growth of modern sectors and the absorption of surplus labor in such sectors. A question that may be raised in this context is whether the term modern sector needs to be coterminous with manufacturing or whether growth and labor absorption can be driven by other sectors. Of course, the historical experience of the currently developed countries and the late developers who have been successful in achieving development indicates that structural change during the early stages of economic growth is led by manufacturing and that the service sector takes over the role of the driver of growth at a subsequent stage of growth. But given the variation in resource endowment and circumstances faced by different countries and the current global economic environment, it may not be realistic to expect all developing countries to be able to follow the same path of economic growth and labor absorption.[9] And that does not seem to be happening in Bangladesh.

More specifically, a decline in the share of agriculture in total output and employment may not necessarily be followed by a corresponding increase in the share of manufacturing. The service sector may also be able to grow fast and thus be able to absorb the surplus labor available in the economy—as has happened to some extent at least. Moreover, structural transformation of rural areas may be driven by growth of rural non-farm activities in general. But the important question in that respect is the type of service sector that grows and the productivity and returns associated with them. Likewise, in the context of rural transformation, the key question is the composition of and returns from the non-farm activities that may be growing. Do they reflect real dynamism in the economy or distress adaptation to a situation in which the alternative is no means of livelihood?

It is not easy to answer the questions raised above. But it is possible to throw light on some of the questions. Alternative indicators (reviewed above) of progress toward the Lewis turning point already raise doubts about whether the country is close to that. But that does not mean that structural transformation is not taking place in Bangladesh. A few points may be made in that regard.

First, while rural-urban migration is a continuing process as in other developing countries, significant and notable changes are taking place within rural areas as well. The central role in rural transformation has, of course, been played by the green revolution that took place during the

1980s and 1990s, but more recent decades have been marked by a diversification in the sources of livelihoods.

According to the HIES (Household Income and Expenditure Survey) data, in 1991–92, agriculture accounted for 40% of rural household income. By 2010, this share had fallen to nearly 30%. The share of "business and commerce" increased from 12.4% in 1991–92 to 22.4% in 2000 but declined to 15% in 2010. The share of wages and salary has also increased. But the most remarkable phenomenon in rural Bangladesh has been the increase in the share of gifts and remittances from 10.6% in 1991–92 to 17.3% in 2010. In fact, income from remittances sent by Bangladeshis working abroad represents a very significant element in the transformation of the rural economy of the country. Such incomes not only have lifted many households out of poverty but also have created linkage effects for expansion of many economy activities, especially in the transport and other service sectors.

Alongside diversification of the sources of incomes of rural households, improvement in physical infrastructures (for example, roads and availability of electricity) has improved connectivity of rural areas with urban areas and rural centers of economic activities. That, in turn, has created necessary conditions for the growth of non-farm activities within rural areas and also has created what may be called a rural-urban continuum. The countryside of Bangladesh today offers a landscape that is very different from that of a few decades ago in that in many areas the difference between rural and urban areas gets blurred.[10] It is true that in many instances it is remittances received from workers working abroad that have transformed the lives and livelihoods of people. But there are also villages where cottage industries, small businesses, or non-traditional agricultural products like vegetables, fruits, and flowers have contributed to some structural transformation in the economy. However, the important question to ask is whether such a transformation is sufficient to move the overall economy to a stage where surplus labor is exhausted. Data in Tables 2.5, 2.6, 2.7 and 2.8 may throw some light on this important question.

Figures in Table 2.5 provide some indication of what kind (if any) of structural transformation has been taking place in the rural economy of Bangladesh as a whole during the 2000s. It is quite clear that there has been very little change in the composition of non-farm employment in the rural areas of Bangladesh during that period. While the share of manufacturing has remained basically unchanged, the only noticeable changes are a decline in the share of trade and an increase in that of construction.

Table 2.5 Bangladesh: number and percentage of people engaged in rural non-farm activities, 2002–03 to 2010

Sector	*2002–03*		*2005–06*		*2010*	
	Number	*Percentage*	*Number*	*Percentage*	*Number*	*Percentage*
Manufacturing	2836	27.89	3086	25.80	4188	27.86
Electricity, gas, water supply	49	0.48	40	0.33	62	0.41
Construction	983	9.66	1006	8.41	1799	11.97
Wholesale and retail trade	3879	38.12	4513	37.72	5467	36.37
Hotels and restaurants	343	3.37	462	3.86	578	3.84
Transport and storage	2015	19.80	2670	22.32	2804	18.65
Financial services	68	0.67	186	1.55	135	0.90
Total	10,175	100	11,963	100	15,033	100

Source: Calculated from reports of Labour Force Survey, various years

Table 2.6 Bangladesh: Wage rate (weekly average wage rate) by sector/activities, 2005–06

Sector	*Wage rate (Taka per week)*	*Wage rate in the sector as percentage of wage in agriculture*
Agriculture and forestry	541	
Fishery	201	37.15
Mining	604	111.65
Manufacturing	561	103.70
Electricity	1185	219.04
Construction	749	138.45
Wholesale and retail trade	682	126.06
Hotels and restaurants	753	139.19
Transport and storage	750	138.63
Financial intermediation	463	85.58
Real estate, renting, and business	769	142.14
Public administration	649	119.96
Education	401	74.12
Health and social work	176	32.53
Other community, social, and personal service	669	123.66

Source: Calculated from the report of Labour Force Survey (2005–06)

Table 2.7 Bangladesh: percentage distribution of day laborers by weekly average wage rate and industry, 2010

Sector	*Up to 500*	*501–1000*	*1001–1500*	*1501–2000*	*Over 2000*
Agriculture, forestry, and fishing	13.77	42.22	26.11	15.28	2.61
Manufacturing	9.42	35.66	23.56	28.16	3.19
Construction	5.68	36.91	38.49	13.70	5.21
Wholesale and retail trade	6.81	29.47	32.23	25.66	5.83
Transport and storage	4.61	34.87	38.46	17.34	4.72
Miscellaneous services	5.06	29.86	36.89	23.68	4.50

Source: Calculated from the report of Labour Force Survey 2010

Even these changes are rather small in magnitude. Thus, it is clear that a decade of sustained economic growth has not had much impact on the structure of the rural non-farm economy of Bangladesh.

An indicator (albeit somewhat indirect) of whether the non-farm sectors, especially in the rural areas, can provide a more attractive alternative compared with agriculture can be provided by a comparison of wages and income from self-employment in such sectors with those in agriculture. Tables 2.5, 2.6 and 2.7 provide some data in that respect.[11] Table 2.6 shows that, in 2005–06, wages in four sectors (fishing, financial service, education, and health and social work) were actually lower than that in agriculture. It is obvious that one is getting into such occupations simply because agriculture can no longer support them (or because they need to supplement their income from their main occupation with engagement in these activities). There are five other sectors where wages are higher than in agriculture, but the difference is less than 30% (which could be taken as a rough indicator of the difference that can be considered sufficient to pull out workers from agriculture).

These five sectors are mining, manufacturing, trade, public administration, and community, social and personal services. These sectors appear to have the potential to act as viable alternatives to agriculture, but their productivity and wages need to improve further before they can act as drivers of growth that is capable of using up surplus labor in a productive manner.

Data of the type in Table 2.6 are not available in tabulated form from the labour force survey of 2010. However, it is possible to present the percentage distribution of day laborers employed in various sectors by

Table 2.8 Bangladesh: income per week in self-employment by sector/activity, 1999–2000 and 2005–06

Sector	*1999–2000*		*2005–06*	
	Taka per week	*Percentage of income in agriculture*	*Taka per week*	*Percentage of income in agriculture*
Agriculture	865		972	
Manufacturing	602	69.59	978	100.62
Construction	1468	169.71	1547	159.16
Trade	1028	118.84	974	100.21
Transport	719	83.12	1014	104.32
Services	1883	217.69	927	95.37

Source: Calculated from reports of Labour Force Survey, various years

weekly wage rates (Table 2.7). Figures presented in Table 2.7 show that, in agriculture, nearly 56% of the laborers earn less than Taka 1000 per week. In all other sectors, the corresponding share is much lower. In fact, in manufacturing, trade, transport, and miscellaneous services, more than half the workers earn between Taka 1000 and 2000 per week. So it would appear that, by 2010, most workers employed in such sectors have been earning more than in agriculture. Although the evidence in this regard cannot be regarded as firm and conclusive, it seems that wages in non-farm activities relative to agriculture may have improved in 2010. This could be an indicator of some change in the structure of the labor market in recent years, although it would not mark a decisive shift.

Income from self-employment[12] in non-farm activities relative to agriculture would be another indicator of whether employment in the former reflects dynamic growth in those sectors. In this regard also, data up to 2005–06 (Table 2.8) do not enable one to conclude that growth of non-farm activities could be regarded as dynamic. In that year, income in services was lower than in agriculture while that in manufacturing, trade, and transport was barely better than in agriculture. These figures would appear to indicate that, until 2005–06, non-farm activities as a whole or manufacturing in particular were not sufficiently attractive in terms of income to pull the surplus labor out of agriculture. Employment in these sectors is more a reflection of the inability of agriculture to support those looking for jobs.

Concluding Observations

What does the empirical analysis presented in this chapter imply for the basic questions posed at the beginning, namely alternative pathways to structural transformation and the journey toward the Lewis turning point? Can anything be said with confidence to contest the Kaldorian framework of manufacturing as an engine of economic growth?

At the cross-country level, countries of ESEA appear to have done much better in terms of structural transformation of their economies (in terms of both output and employment) as well as of moving toward the Lewis turning point. And in those countries, manufacturing has emerged as the engine of growth. On the other hand, the success of the countries of South Asia in this regard appears to be limited. It is not a coincidence that manufacturing in those countries has not played a similar role as in ESEA.

Examination of the experience of Bangladesh provides further details on both of the issues mentioned above. Growth in manufacturing in the country has remained limited to one export-oriented industry (namely, ready-made garments). Although some other industries (for example, ceramics, furniture, pharmaceutical industry, and shipbuilding) have registered impressive growth in recent years, they do not add up to what is required for reaching the Lewis turning point in the near future. It is also true that a large part of the rural labor force who were earlier employed in agriculture have moved to various non-agricultural activities within rural areas. However, the extent to which such activities can be classified as "modern" in terms of productivity, incomes, and other aspects of work remains a question. While some of those activities do yield higher incomes, there are those to which people turn simply because of the absence of sufficiently attractive alternatives (at least during parts of the year). This also relates to the second question, namely whether transfer to the modern sector has to necessarily involve migration to urban areas or whether work with higher incomes can be found in rural and semi-urban areas. As the experience of Bangladesh indicates, some such work can indeed be found without having to migrate to urban areas. But the question remains as to whether such employment can really match those in modern manufacturing.

The kind of structural transformation that is taking place in the rural areas of Bangladesh may be able to create a shortage of workers in agriculture. The latter may actually result from a supply-side factor as well: with the spread of education, even if only primary- or secondary-level education,

younger members of the labor force may find work in crop production, especially wage labor, unattractive. Hence, they may try to eke out a living through work outside the crop sector (for example, through engagement in petty trade), even if that may mean incomes not much higher than in agriculture. Of course, in some cases, activities within agriculture (for example, growing of vegetables and fruits, raising of poultry and livestock) may yield incomes higher than in traditional crops. That, in turn, may be contributing to the creation of a shortage of workers in crop production. But that does not necessarily imply that the pool of surplus labor from which manufacturing may draw its supply of labor is drying up. That real wages in manufacturing still appear to have remained quite flat is indicative of that situation. Hence, it may be rather premature to say goodbye to Lewis and Kaldor.

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Notes

1. See Islam (2008) for analysis of the experience of Asian countries with regard to attaining the Lewis turning point.
2. In the context of India, Dasgupta and Singh (2005) explore this possibility.
3. These figures are from Papola (2006).
4. These figures have been calculated from data presented in Islam (2014).
5. These figures have been calculated by using data from the World Bank: *World Development Indicators* (various years).
6. The indices are based on real wages of unskilled workers in various sectors.
7. Another point to note in this regard is that the difference between industrial and agricultural wage has not increased over time. On this, see Rahman (2012), Table 7.9.3, p. 161.
8. The observed figures may reflect differences in inclusion and exclusion from the labor force. In 2005–06, many more rural women who work for short periods (especially as unpaid workers) may have been included in members of the labor force and that may have pushed female underemployment rate to a very high level. In 2010, the opposite may have happened. The manner in which responses regarding female employment are recorded in the questionnaires can have implications for the results.

9. Islam and Islam (2015) review and assess a few illustrations of economic activities outside the conventional manufacturing sector that are playing an important role in the structural transformation of the respective countries.
10. For interesting anecdotal accounts of such development, see Hossain and Bayes (2015).
11. In the labor force surveys, wage data are collected for the reference week although the questionnaire does ask whether wages are paid on a daily, weekly, or monthly basis.
12. The labor force surveys contain a question on monthly income of the self-employed. So the figures seem to represent the incomes stated by the respondents.

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CHAPTER 3

Labor and Employment in the Emerging Rural-Urban Continuum in India: Toward a Cohesive Policy

D. Narasimha Reddy

Introduction

The origins of modern development theory are rooted in the visualization of development largely as a process of structural transformation in the nature and composition of production, employment and location. The several contributions explaining the development with the labor process at the core stand out, each explaining one of the two major dimensions of transformation of traditional economies. While the contribution of Lewis (1954) provides a comprehensive explanation of the shift of labor and employment from traditional to modern economic activities, Harris-Tadaro (1970) explains the spatial shifts but without all the complexities of labor mobility associated with contemporary developing economies. Perhaps there is no other paper in development economics that has aroused as much abiding interest and investigation as that of Lewis, whether it was fifty years (Kirkpatrick and Barrientos 2004)

D.N. Reddy (✉)
University of Hyderabad, Telangana, Hyderabad, India

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or sixty years (Gollin 2014) later. This is in spite of the caution sounded by Lewis himself when he observed that "… the model is illuminating in some places at sometimes, but not in places or other times … I was trying to understand not to prescribe" (Lewis 1984). In terms of explaining labor mobility as a part of the development process, the "Lewis turning point", despite the caution, continues to be the focus of much of the scholarly work as much as informed journalism (*The Economist* 2013; Cai and Wang 2008; Knight 2007; Das and N'Diaye 2013 to cite a few). Rural-urban interface in terms of changes in employment and labor market structure, labor productivity and wages form critical dimensions of the "Lewis turning point". Tadaro's primary focus was on explaining the rationale of migration mediating the shifts increasingly from the rural informal to the urban formal sectors. The emerging process of change in the employment structure in countries like India does not conform strictly to these theoretical expectations of progressive shift of labor from informal to formal in either rural or urban activities, and the structure of urbanization and the nature of the labor process across rural and urban space differ. Hence, what is attempted here is a contextual and empirical development in the labor and employment conditions across the rural-urban areas with the objective of abstracting certain emerging tendencies which may be helpful in understanding the nature of changes and possibly in designing appropriate interventions. The chapter is divided into five sections. The following part of the introduction draws attention to the growing consensus on rural-urban continuum. The second part refers to a certain uniqueness of the rural-urban composition and the urbanization process in India and the rural-urban spillovers of formal and informal employment and organization of production. The third section analyzes the nature of migration and focuses attention on the condition of the temporary or circular migration and its invisibility. It also points out the potential of rural-urban commuting as a special advantage in the context of urbanization with a widespread network of small towns. The fourth section presents a case for evolving a comprehensive policy that would recognize the potential of small town–driven growth of urbanization and the combination of migration- and commuting-based movement of labor. The concluding part pleads for change in the approach toward urbanization and migration with which appropriate policy interventions could lay the foundations for better development.

Rural-Urban Continuum

Although the pace and processes may differ, the growing urbanization is as much a reality as the continued existence of a substantial part of the economic activities in the rural segment as well in many of the developing countries. This indicates a close nexus in production and employment activities between rural and urban areas. Yet there has been persistence of the notion of "rural" and "urban" divide because of historical reasons. A long and raging debate since the Industrial Revolution on the rural and urban divide resulted in two divergent views (UN 2002). The strong anti-urban view is based on idealizing rural life and regretting its disappearance due to urban destructive process leading to breakdown of social life. In contrast, the pro-urban view considers cities as the engine of economic growth, as a progressive process with the characteristics of facilitating technological innovations, economic development, and socio-political transformation. These dichotomous views on rural and urban areas are the main source of differentiated policies and strategies for the rural in contrast to urban areas.

However, there is a growing realization of the interlinkages and the interdependence of rural and urban areas and the need to approach development strategies by conceptualizing rural-urban as a continuum rather than as a divide. The notion of "divide" is questioned as an oversimplification and distortion of realities (Tacoli 2003, 2007). There is a wider consensus on the rural-urban continuum (see, for instance, a review by Tacoli 1998a, b, 2003; Mylott 2007) and the strong resolution at the United Nations for "bringing to an end the counterproductive rural-urban dichotomy debate and promoting a policy perspective that views urban and rural areas as existing in human settlement continuum" (UN 2002). The available empirical findings also show strong rural-urban linkages in terms of movement of people, goods, capital and other social transactions (Lynch 2005; Agargaard et al. 2010). These interactions play important roles in rural as well as in urban development. The rural-urban linkages are more intensive and important for livelihoods and production systems. There is also the emergence of peri-urban settlements along the roads and around the major urban settlements. Much of the rural population depends on the urban population for a range of services, including secondary schools, credit, agricultural inputs and equipment, hospitals and government services, in addition to better employment opportunities. One of the factors which have a key role in rural-urban linkages is decreasing incomes of farmers, especially small-scale producers who depend on non-farm incomes often in urban areas (Tacoli 2003).

The impact of rural-urban linkages depends upon households' wealth and status. With growing social polarization under the influence of neoliberal reforms and globalization, wealthier households use both rural-urban resources as part of an accumulation strategy while poor and vulnerable households and individuals negotiate the rural-urban continuum for survival. The reliance of low-income households is more on both rural-based and urban-based resources in constructing their livelihoods. Most of the policies designed in the rural-urban divide framework ignore those who are straddling rural and urban space and these hurt the poor more (Tacoli 2003). There is a need to recognize that in most of the small farm-dominated economies like Sub-Saharan Africa, there has been "deagrarianisation" with the collapse of agriculture as the primary source of rural livelihoods and the pursuit of non-farm options (Ellis 2005), which makes them straddle urban as well as rural occupations.

Urbanization in India

The development experience of India over six decades in the post-independence period throws up certain unique features of change in the composition of the rural-urban population. There is a point of view that India has been one of the slowest urbanizing countries. In 2011, India was home to the world's largest share of rural population and also the world's second largest urban population (Table 3.1). Unlike China, which is fast urbanizing, India is projected to have the largest share of rural population even in the decades to come. In 2050, by which time India could be an advanced country, while the projected rural population share within India may shrink to 30%, its global share of rural population

Table 3.1 India's rural and urban population in perspective: 2011

Country	*Rural*			*Urban*			
	Population	*Global*		*Population*	*Global*		*Urbanization*
	(million)	*Percentage Share*	*Rank*	*(million)*	*Percentage Share*	*Rank*	*Percentage*
India	833	24	1	377	11	2	31
China	700	20	2	722	19	1	53

Source: Proctor and Lucchesi (2012)

Table 3.2 Urbanization scenario in India

	1951	*1961*	*1971*	*1981*	*1991*	*2001*	*2011*	*2026*[a]	*2030*[b]
Total population (Million)	361	439	598	683	844	1027	1210	1399	1470
Urban population (Million)	62	79	109	159	217	285	377	545	590
Urbanization rate (percentage)	17	18	18	26	26	28	31	39	40
Inter-censal annual rate of growth (percentage) of urban population	–	2.34	3.24	3.79	3.09	2.75	2.76	–	–

Source: [a]Registrar General and Census Commissioner (2006)

[b]MGI (2010)

would remain the largest. This holds a unique situation in the economic space as well. But this is no reason to believe that there would be continued slower growth of urbanization in India.

India's share in the world's urban population as the second largest would also remain so for decades to come. First, the contention that India's urban growth rate was declining was based on the experience of the 1980s and more so of the 1990s, when the annual growth rate declined to 2.75% compared with more than 3% in the previous decades. It is also true that the share of India's urban population increased at a rather low pace, from 17.3% in 1951 to 27.8% in 2001; that is, it took half a century for ten percentage points of increase (Kumar and Li 2007), but all that has changed and there is a turn toward rising urban growth between 2001 and 2011 (Table 3.2).

And during the last decade, the absolute increase in urban population (91 million) for the first time was higher than the increase in rural population (90.5 million). Second, it is also true that the apparently slow growth of urbanization in India, in contrast to some of the countries in Latin America with a lower population threshold for urban classification, may be partly due to the restrictive official definition of urbanization (Tacoli 1998a, b; UN 2001).[1] Third, another turning point of the last decade was the shift in the sources of urbanization from natural urban population growth to other factors (Fig. 3.1). During the decade of 2001–2011, the contribution of the natural growth of the urban population declined to 44% while the share of reclassification of rural settlements as census

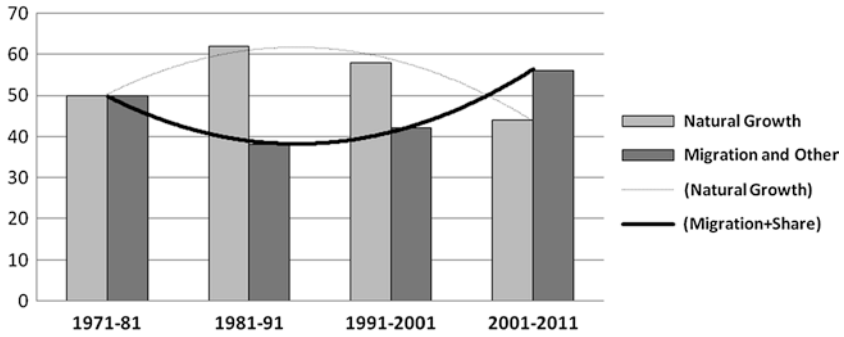

Fig. 3.1 Components of urban population growth (1971–2011, as percentage) Source: Bhagat (2011)

towns (29.5%), rural-urban migration (22%) and reclassification due to expansion of urban boundaries (4.5%) together contributed to 56% of urban population growth (Pradhan 2013). Fourth, the size-specific changes in the urbanization process in the last decade also refute the impression that urbanization in India was top-heavy, causing severe congestion problems in the mega cities and hence unsustainable. While it was true that in 2001 the share of cities with over 5 million people in total urban population in India was as high as 23.5% compared with the world average of 15.5% (Kundu et al. 2003), the last decade experienced a decline in the growth rate of mega cities with a population of 10 million or more. Whereas the decadal population growth of Greater Mumbai UA was 30.47% in the 1990s, it declined to 12.05% in 2001–2011. During the same period, a similar decline was observed in Delhi UA (from 52.24% to 26.69%) and in Kolkata (from 19.60% to 6.87%) (Kundu 2014).

Furthermore, in contrast to the earlier decades, the period between 2001 and 2011 experienced much faster growth at the lower end of the size of the urban settlements because of a surge in the growth of "Census Towns".[2] In the earlier decade, the average growth of new census towns was about 400 to 500 (Kundu 2014), but in the decade of 2001–2011, a record number of 2532 new census towns were added (Table 3.3). There are also clear indications that the potential of small towns to contribute to the future growth of urbanization is very high. Table 3.4 shows that, by 2011, large villages each with a population of more than 5000 together accounted for about 24% of the rural population but were considered rural

Table 3.3 2001–11: Surge in the growth of towns

Type of towns	*2001*	*2011*	*Increase*
Statutory towns	3799	4041	242
Census towns	1362	3894	2532
All towns	5161	7935	2774

Source: Pradhan (2013)

Table 3.4 Percentage share in rural population of villages with population of over 5000

Year	*Villages with 5000–9999*	*Villages with 10,000 and above*	*Total*
2001	13.21	8.55	21.76
2011	14.86	8.68	23.54

Source: Chandrasekhar and Sharma (2014)

since they did not fulfill the density or occupation criteria of urbanization. But with the fast growth of the non-farm share of rural employment, most of these settlements are likely to emerge as small town urban centers. Thus, the experience of the last decade shows that urbanization is a critical threshold of change reversing the trend of declining growth. Even as the pace of the growth of mega-city urban agglomerations is on the decline, the surge in the growth of small towns indicates a potential for a more balanced spread of urbanization with possible stronger linkages along the rural-urban economic space as well.

Employment Across the Rural-Urban Space

The distribution of labor force across rural and urban areas reflects proportions more or less similar to the population distribution, and the estimated shares of population in 2011–12 between rural and urban areas are 68.5% and 31.5%, respectively, and of the labor force are 67.9% and 32.1%. But the structure of employment within rural and urban areas varies substantially. It is assumed that while agriculture dominates rural employment, non-farm activities dominate urban activities. The received wisdom (Lewis 1954) of structural transformation in the development process suggests that with the growth of the economies there will be an increasing shift in employment from agriculture to non-agricultural activities, and

often it is also assumed that such a shift from agriculture to non-agriculture would go hand in hand with a shift from rural to urban employment. There is a widely shared view that the Lewisian kind of structural transformation in India is delayed or distorted. The recent experience in changes in employment shows that there have been far-reaching changes with the shifts from agriculture to non-agriculture not as much in the form of rural to urban but in the rural employment structure, which some have referred to as stunted structural change (Binswanger-Mkhize 2013). By 2012–13, the proportion of agricultural households in the total rural households declined to 57.8% and agricultural households with agriculture as the principal source of income constituted about 68%. As a result, overall rural households with agriculture as the principal source of income constituted only 39.5% (NSSO 2013). Except in four states (Assam, Chhattisgarh, Madhya Pradesh and Uttar Pradesh), agriculture is no longer the main source of income for the majority of rural households in India. This may sound paradoxical since the majority of workers in rural areas are still employed in agriculture. But the fact is that most of the agricultural households depend on multiple sources of employment, and particularly for many small and marginal farmers, non-farm sources constitute a substantial part of income.

Table 3.5 shows the changing structure of rural and urban employment over a decade. The major difference between rural and urban employment structures is that while rural employment is dominated by agriculture, urban employment is substantially in services. But within the urban employment structure, there has been a marginal increase in manufactur-

Table 3.5 Structural Changes in Rural and Urban Employment

Sector	*Percentage distribution of employment*			
	1999–2000		*2011–12*	
	Rural	*Urban*	*Rural*	*Urban*
Agriculture	74.1	7.5	61.2	5.5
Manufacturing	7.4	22.5	8.8	23.7
Construction	3.8	8.4	11.8	9.7
Other industries	0.8	1.6	0.8	1.9
Services	13.9	60.0	17.4	59.2
All	100.0	100.0	100.0	100.0

Source: Ghose (2016)

ing and construction over the years, but substantial changes have not occurred. But the rural employment structure has changed considerably, with a steep decline in the share of agriculture from 74.1% in 1999–2000 to 61.2% in 2011–12, a more-than-threefold increase in the share of construction, and an increase in the share of the service sector from about 14% to about 17% during the period.

From the point of view of the rural-urban continuum in labor and employment terms, the distribution of employment across the sectors, especially the non-agricultural sector, is of critical importance. Table 3.6 shows the distribution of rural and urban share of employment in major sectors of economic activity in 2011–12. There has been a drastic decline in employment in agriculture in rural areas by over 32 million within a

Table 3.6 Distribution of Rural and Urban Employment by Sectors (UPSS)

(In millions)

Sector	*2011–12*			*Net change 2004–05 – 2011–12*		
	Rural	*Urban*	*All*	*Rural*	*Urban*	*All*
I. Agriculture + allied	215.3 (95.3)	9.2 (4.1)	224.4 (100)	−32.3	−1.0	−33.3
II. Non-agricultural						
1. Manufacturing	29.1 (47.5)	32.3 (52.5)	61.3 (100)	1.5	3.6	5.1
2. Construction	37.2 (74.5)	12.7 (25.5)	49.9 (100)	20.5	3.3	23.8
3. Trade, repair, hotels	23.1 (40.8)	33.5 (59.2)	56.6 (100)	2.3	4.7	7.0
4. Transport, communications	9.9 (46.5)	11.4 (53.5)	21.3 (100)	1.4	1.2	2.6
5. Finance, insurance, and so on	2.6 (19.5)	10.7 (80.5)	13.3 (100)	1.2	4.6	5.8
6. Community, social + personal services	16.4 (40.6)	24.0 (59.4)	40.4 (100)	0.5	2.9	3.4
Total non-agricultural	120.8 (48.7)	127.3 (51.3)	248.1 (100)	27.3	20.8	48.1
Total employment	336.0 (71.1)	136.5 (28.9)	472.5 (100)	−5.0	19.7	14.7

Source: National Sample Survey Office (NSSO) 61st, 66th, and 68th rounds

UPSS Usual Principal and Subsidiary Status of Employment

Table 3.7 Sectoral distribution of rural net domestic product (NDP)

Sector	*1980–81*	*1993–94*	*1999–2000*	*2011–12*
1. Agriculture and allied	64.6	56.99	51.42	38.34
2. Rural non-farm	35.64	43.01	48.58	61.66
All	100.0	100.0	100.0	100.0

Source: Papola (2013)

short period between 2004–05 and 2011–12. Leaving agriculture which is essentially a rural phenomenon and a fast declining one at that, the rural-urban employment share in other sectors reveals an interesting picture. The decline in agricultural employment is to a large extent compensated for by the rise in rural non-agricultural employment, predominantly by the phenomenal increase in the rural construction sector. Almost three fourths of all construction sector employment in the country is in rural areas. Even in the employment in manufacturing in the country, the share of rural areas is almost half (48%). And close to half of the employment is in "transport and storage". Thus, except for the financial sector, the share of rural employment is substantial, so much so that the rural share in the total non-agricultural employment is almost half (49%). The diversification in rural employment and the emergence of rural non-agricultural employment numerically close to urban share have far-reaching implications not only for the future direction of structural change but also for rural and urban linkages in production and employment aspects.

Contrary to some propositions, there is considerable evidence that employment in rural non-agriculture is not distress driven but a shift to relatively better productive work. Table 3.7 shows estimates of distribution of the value of rural net domestic product (NDP) between agricultural and non-agricultural sectors. Over a period of time, particularly since 1999–2000, there has been a steep increase in the share of non-farm sector, from less than half to 62% of the rural NDP.

Organized and Unorganized Sectors in Production and Employment

Over the years, although there has been improvement in the share of the organized sector in both rural and urban areas, in 2011–12, the organized sector still accounted for less than 10% of the total rural employment while almost two-thirds of urban employment is in the unorganized sector.

Table 3.8 shows that within the organized sector all employment is not formal; 97.3% of rural and 81% of urban employment are informal in nature. In both rural and urban areas, self-employment is the dominant form, accounting for over half of rural and about 40% of urban employment. What does this imply for the rural-urban continuum? Apparently, it suggests that the rural and urban employment conditions have not yet become seperate watertight compartment and with the rural implying unorganized and informal, and urban ending up as organized and formal, and thus leaving no room for mobility and employment opportunities across the rural-urban space.

On the question of quality of employment, apart from relatively insecure and low-paid informal employment, the prevalence of widespread underemployment is yet another indicator of the poor quality. Table 3.9 shows that, between 1999–2000 and 2011–12, there has been a substantial reduction in underemployment in both rural and urban areas. In the case of casual labor, it is significant to note the steep decline from about 23% to about 17% in rural areas, and wipes out the urban-rural difference. Of course it is not to digress from the fact that among casual labor underemployment still remains as high as 17% in both rural and urban areas.

In the case of unemployment, it is observed that when a large number of households are poor, the extent of unemployment is likely to be very low because the poor cannot afford to become unemployed. They take up

Table 3.8 Certain structural features of rural and urban employment as in organized and unorganized sectors and as formal and informal employment

Nature of employment	*Percentage distribution*			
	1999–2000		*2011–12*	
	Rural	*Urban*	*Rural*	*Urban*
1. Organized sector	5.4	27.2	9.5	34.4
2. Unorganized sector	94.6	72.8	90.5	65.6
All	100.0	100.0	100.0	100.0
II.				
1. Formal employment	2.7	18.8	3.6	19.0
2. Informal employment	97.3	81.2	96.4	81.0
i. Regular-informal	5.5	23.9	6.7	26.9
ii. Casual	40.7	18.1	37.4	14.6
iii. Self-employment	51.1	39.2	52.3	39.5
All	100.0	100.0	100.0	100.0

Source: Ghose (2016)

Table 3.9 Estimates of underemployment in different types of employment in rural and urban areas

Rate (percentage) of underemployment	*1999–2000*		*2011–12*	
	Rural	*Urban*	*Rural*	*Urban*
Regular-formal	8.8	9.3	1.2	1.3
Regular-informal	8.5	9.0	3.7	3.0
Casual	23.1	20.6	17.3	16.5
Self-employed	10.7	9.3	7.7	5.2
All	15.6	11.3	10.8	5.6

Source: Ghose (2016)

Note: On "daily status" basis—days not worked as percentage of days available

Table 3.10 Rural and urban unemployment rates (%) by age group

Age group	*1999–2000*		*2011–12*	
	Rural	*Urban*	*Rural*	*Urban*
15–24	5.9	15.5	8.7	14.0
25–29	3.1	8.5	3.5	6.0
30–59	0.1	1.1	0.3	0.8
All	2.1	5.5	2.5	4.0

Source: Ghose (2016)

whatever work is available even if it is poorly paid and lacks regularity. Therefore, the overall unemployment situation in rural and urban areas, though different from one another, still show a very low level of 2.5% in the former and 4.0% in the latter (Table 3.10). However, in the case of youth, the unemployment level is very high in urban areas, and in rural areas it is low but on the rise. This may be partly because of the relatively better educational status of youth looking for more productive work and partly because of the slow growth of employment opportunities.

The nature of enterprises in different sectors and changes in their urban-rural distribution and with this the changing share of employment across locations will have significant implications for the rural-urban continuum. There are clear indicators that enterprises in the organized sector have tended to move from their urban concentration toward the rural. There may be several reasons for this, including rising urban land prices, urban congestion, easy

Table 3.11 Changing Urban Share in Organized and Unorganized Manufacturing (Percentage Share)

Year	*Urban share in organized*			*Urban share in unorganized*		
	Units	*Employment*	*Output*	*Units*	*Employment*	*Output*
1994–95	68.8	66.7	62.0	23.9	30.2	56.5
2000–01	62.6	60.3	54.6	28.5	34.7	57.4
2005–06	59.5	56.7	51.4	27.9	34.7	58.9
2010–11	62.8	56.5	53.3	41.2	48.0	63.4
Change in urban share 1994–95 to 2010–11	−6.0	−10.0	−10.6	+17.3	+17.8	+7.0

Source: Ghani et al. (2012), National Sample Survey (NSS) Report No. 549, 2013

access to low-end labor in rural areas, and incentives by the governments. Simultaneously, there is a tendency toward increase in the share of unorganized enterprises in urban areas, particularly in activities with local demand for inputs or components to organized units. For understanding these changes there is paucity of information. However, there is certain extent of data from NSSO surveys over four points time confined to manufacturing sector is of some help. Table 3.11 provides the nature of the changing shares of urban areas in enterprises and employment in organized and unorganized manufacturing activities. The urban share in the organized enterprises and employment in manufacturing declined between 1994–95 and 2010–11 in spite of some increase in 2010–11 over 2005–06. In contrast, the urban share in enterprises and employment in unorganized manufacturing increased substantially in the period between 1994–95 and 2010–11. Figures 3.1 and 3.2 capture these shifts more clearly in graphic form.

Furthermore, a close look at the type of enterprises in unorganized manufacturing shows that, in terms of size of employment, there is not much difference between the rural and the urban ones. Table 3.12 shows that the average sizes of enterprises which ranged between 2.11 and 2.76 in rural and urban areas respectively in 1994–95 declined to the range of 1.83 and 2.31 by 2010–11. The inferences that could be drawn from these changes indicate growing potential for interlinkages in economic activities and labor mobility across the rural-urban space.

Unlike manufacturing, data on the urban and rural division between organized and unorganized enterprises are not easily available. However, one of the recent NSSO Rounds (67th R 2012) covered unorganized

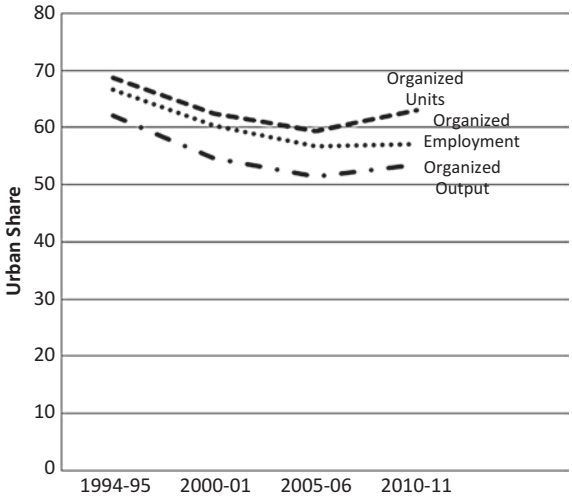

Fig. 3.2 Changing urban share in organized manufacturing

Table 3.12 Enterprises and employment in the unorganized (informal) manufacturing sector in India: 1994–95 to 2010–11

		*51st Round (1994–95)**	*56th Round (2000–01)*	*62nd Round (2005–06)*	*67th Round (2010–11)*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Rural	Enterprises (millions)	10.5	11.9	12.1	10.1
	Workers (millions)	22.1	24.0	23.5	18.5
	(Average number of workers per enterprise)	(2.11)	(2.01)	(1.93)	(1.83)
Urban	Enterprises (millions)	4.0	5.1	4.9	7.1
	Workers (millions)	11.1	13.1	13.0	16.4
	(Average number of workers per enterprise)	(2.76)	(2.57)	(2.63)	(2.31)

Source: NSS Report No. 434, NSS Report No. 478, Appendix Tables 1, 2 and 67th Round, 2012
*Owing to coverage differences, the figures of 51st Round are not strictly comparable with those of the 56th Round and 62nd Round

Table 3.13 Enterprises and employment in trade and "other services" in the unorganized sector in rural and urban areas: 2010–11

Sector	*Rural*			*Urban*			*All*		
	Units (M)	*Employment (M)*	*Average employment per unit (No.)*	*Units (M)*	*Employment (M)*	*Average employment per unit (No.)*	*Units (M)*	*Employment (M)*	*Average employment per unit (No.)*
Trade	10.6 (51.0)	15.4 (45.0)	1.45	10.2 (47.0)	18.8 (55.0)	1.84	20.8 (100)	34.2 (100)	1.64
"Other services"	10.2 (51.8)	19.3 (49.5)	1.89	9.5 (48.2)	19.7 (50.5)	2.07	19.7 (100)	39.0 (100)	1.97

Source: NSSO 67th Round (2012), Report No. 549
M millions; Figures in parentheses are percentages

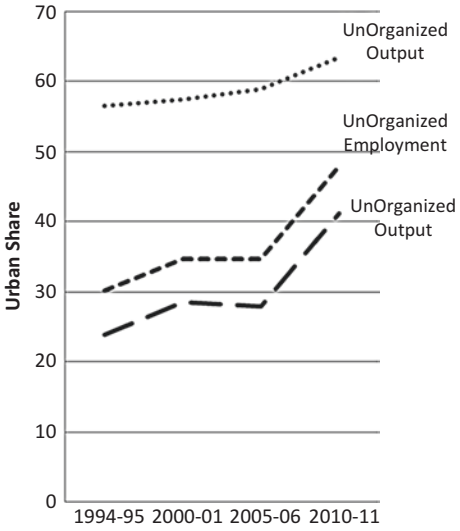

Fig. 3.3 Changing urban share in unorganized manufacturing
Source: Ghani et al. 2012

non-agricultural enterprises other than construction. Table 3.13 shows that in 2011–12 in unorganized trade and "other services", the urban share in enterprises is almost close to that of the rural share and that in the case of employment the urban share is more than half in both trade and "other services". Trade and "other services" in the unorganized sector are also tiny units in both rural and urban areas; on average, each unit employs about 1.45 to 1.97 persons (Fig. 3.3).

Migration and the Rural-Urban Continuum

Rural-urban migration is a key link in the rural-urban continuum. At one level, "the comparison of time and space inherent in globalization – deterritorialization – transforms places from bound items to sets of networks in motion, and migration is the most visible form of rural-urban interactions" (Clausen 2004). Beginning in the 1960s, a negative view took hold for quite some time in Asian countries that rural-urban migration was undesirable. Many Asian countries "denounced rural-urban migration and rapid urbanization as obstacles to development that generated poverty, unemployment, crime and social disorder, slums and squatter settlements in urban areas, many Asian governments adopted policies that aimed at stopping the rural population from migrating to the city.

The policies tried to reduce urbanization or redirect rural-urban migration to secondary towns and rural areas through transmigration, migration controls, deurbanization and industrial dispersal policies, sometimes at the expense of human rights and the environment" (UN 2001). Such an approach to rural-migration led to the neglect of several dimensions of migration, like the extended livelihoods across the rural-urban continuum and multi-spatial livelihoods which contributed to the rural economy as much as to the urban. However, there has been a change in attitude to migration in recent years. There is growing recognition that "… rapid urbanization should be accepted as inevitable", more so in the globalization context, and that there is a need to "promote and strengthen the capacity of cities and towns productively to absorb excess rural population and better manage development", and at the same time there is need to ensure that "… rural population be provided decent living conditions …" (UN 2002). Over the years, there has been gradual change in attitude on the issue, as another report of the UN pointed out: "… Rural-urban migration is no longer considered an expulsion of the rural poor from impoverished rural areas and a desperate flight to bright city lights that only result in more poverty in urban areas. Rural-urban migration is now seen in terms of the free-flow of labor to areas where it can be more productive and earn a higher income. Rural-urban migration contributes to economic growth and reduces disparities" (UN 2001). This is not to suggest that labor flows are smooth, homogenous, and harmonious processes. Neither urban labor markets nor rural-urban migrants are homogeneous (Wang et al. 2000). Urban labor markets are of various types with characteristics of segmentation, discrimination and wage rigidity. Similarly, rural-urban migrants have diverse attributes in terms of human capital and not necessarily rural surplus labor (Wang et al. 2000). The process of migration and the mediating institutions could be highly exploitative, calling for appropriate policy interventions.

Migration patterns vary from seasonal, temporary or circular to permanent migration, and gender, age, education, asset base, and—in societies like India—the social base determine the nature of migrant occupations and opportunities. Also, the outcome of rural-urban mobility depends upon the nature of access to urban labor markets which are broadly characterized as formal and informal. Informal labor markets are characterized by precarious employment, low-wage and irregular income, the lack of welfare benefits, and poor working environments. There is growing evidence that, in the globalization context, the urban informal economy not

only is here to stay but is growing and provides a major livelihood option for a significant proportion of the migrant workforce in non-agricultural activities in Asia, Africa and Latin America (Kumar and Li 2007).

In India, the main sources of data on migration are the decadal census and quinnial Employment and Unemployment Surveys (EUSs) of the NSSO, but not all the EUSs provide data on migration. Available data from both sources suffer from limitations (Srivatsava 2011). Over the decades, the increasing proportion of non-reporting of the duration of migration in the census has become a critical problem. There are often discrepancies in the data between census and NSSO sources. According to the 2001 census, using the change in the definition of Usual Place of Residence, 30.1% of the Indian population could be described as internal migrants, but the NSSO estimates for 2007–08 (64th Round of the NSS) show it as 28.6%. Both sources do show that bulk of migrants in India are women who migrate out of their villages because of exogenous marriages. The NSSO data for 2007–08 show that almost four fifths of migrants were female and that about 83% of them migrated because of marriage (Srivatsava 2011). For the purpose of understanding the labor and employment links in the rural-urban space, it is migration for economic reasons that becomes the focus. Both of the sources, however, show that migration for economic reasons has been on the rise. According to NSSO data for 2007–08, the rate of migration for economic reasons increased from 3% of the total population in 1993 to 3.01% in 199–00 to 3.04% in 2007–08 and was driven by the increase in the rate of male migration, which increased from 12.73% in 1993 to 14.36% in 2007–08.

Of the migrants for economic reasons, the two streams viz. rural-to-urban and urban-to-rural migration, distance of migration and duration are important indicators of the process and direction of development. Taking intra-district, inter-district and inter-state as proxies for short, medium, and long distance, respectively, Table 3.14 shows that rural-urban migration is the single largest stream and is the only stream with an increasing share. The growth in rural-urban migration is entirely driven by long-distance migration. The urban-rural stream has a modest share and a declining one at that. However, rural-urban and urban-rural streams together constitute half of all migration.

There are some questions that arise in the migration for economic reasons: what happens to the migrants if they were already in the workforce in some economic activity, and what happens to those who are out of labor force? And especially what happens to those moving from rural to urban and urban to rural? Table 3.15, which is based on 64th Round NSSO data (2007–08), has

Table 3.14 Distance and streams of migration for economic reasons: 1991 and 2001

Stream	*Short distance*[a]		*Medium distance*[b]		*Long distance*[c]		*All*	
	1991	*2001*	*1991*	*2001*	*1991*	*2001*	*1991*	*2001*
1. Rural-rural	16.2	13.0	7.9	7.2	4.4	5.9	28.5	26.1
2. Rural-urban	12.9	10.9	15.1	15.1	13.4	19.4	41.4	45.4
3. Urban-rural	2.2	1.7	2.4	1.5	1.1	1.2	5.7	4.4
4. Urban-urban	4.0	4.1	10.1	9.0	9.4	9.0	23.5	22.1

Source: Srivatsava (2011)
[a]Intra-district; [b]Inter-district; [c]Inter-state

Table 3.15 Employment status before and after economic migration: 2007–08 (percentage)

Stream		*SE-Ag*	*SE-Nag*	*RS*	*CL*	*Worker*	*UE*	*OLF*	*Non-Worker*	*Total*
Rural-rural	Before	9.0	1.3	1.0	11.6	22.9	0.8	76.3	77.1	100
	After	23.5	4.0	2.6	17.0	47.2	0.3	52.6	52.8	100
Rural-urban	Before	6.0	4.1	4.5	9.1	23.8	7.1	69.2	76.2	100
	After	2.4	12.4	18.0	7.3	40.1	0.8	59.2	59.9	100
Urban-rural	Before	2.6	4.5	10.9	8.4	26.4	1.3	72.4	73.6	100
	After	13.1	9.2	8.2	11.7	42.2	1.2	56.6	57.8	100
Urban-urban	Before	0.7	5.1	13.8	2.0	21.6	3.6	74.8	78.4	100
	After	0.6	10.9	20.3	2.4	34.2	1.0	64.9	65.8	100
All	Before	6.8	2.6	4.2	9.5	23.1	2.6	74.3	76.9	100
	After	15.0	7.1	8.8	12.5	43.5	0.5	56.0	56.5	100

Source: Srivatsava (2011)
SE-Ag Self-Employment in Agriculture, *SE-NAg* Self-Employment in Non-Agriculture; *RS* Regular/Salaried
CL Casual Labor, *UE* Unemployed, *OLF* Out of Labor Force

some interesting results. For all the streams, the worker status increased, the "out of labor force" comes down, and unemployment comes down or almost varnishes, even in the case of rural-urban migrants among whom unemployment was high before migration. For rural-urban migrants, most of the gains in work status are in non-agricultural self-employment and in regular or salaried employment. Interestingly, urban-to-rural migrants appear to be moving to agricultural self-employment, which emerges as the single largest source of employment.

Most of the internal migration driven by the economic growth surge in recent decades belongs to the rural-urban migration stream (Keshri and Bhagat 2012). According to the total migration estimates derived from the 64th Round of NSS (2007–08), rural-to-urban migration accounted for 63% while rural-rural migration was 30%, and the other two streams—urban-rural (31%) and urban-urban (5%)—constituted much smaller proportions. If we divide rural-urban migration into permanent and temporary,[3] circular or seasonal migration, it is the latter stream that is complex and fraught with several vulnerabilities that become critical for policy (Breman 2013). The number of workers involved in this stream of migration is very large, although it is widely recognized that the available data suffer from gross underestimation (Deshinkar and Aktar 2009; Srivatsava 2011; de Haan 2011). Seasonal, circular or temporary migration according to NSS 64th Round was 13 million or 2% of the total working force. But alternate estimates based on micro-studies range from 40 million (Srivatsava 2011; de Haan 2011) to 100 million (Deshingkar and Aktar 2009). One of the main reasons for the NSSO underestimate is the restrictive definition of period of duration of temporary migration as spanning from 2 to 6 months. Many field studies, however, show that the duration of temporary migration could stretch more than 6 months. For instance, an extensive study in Bihar shows that more than 50% of rural-urban temporary male migration involves more than 8 months (Datta et al. 2012). A study of migration from Uttarakhand shows that about 73% of circular migration is for about 6 to 12 months (Mamgain 2014). Another study of Chennai agglomeration shows that almost all inter-state long-distance temporary migration is for more than 6 months (Jayaranjan 2014). Furthermore, rural-urban temporary or circular migration raises several social problems (Deshingkar and Akter 2009; Srivatsava and Shashikumar 2003; Pattenden 2012).

Rural-urban temporary migration is much more complex than permanent migration and requires more attention in the context of India where it is theoretically—and, to a large extent, even empirically—still invisible. The labor market–related issues in this process of migration and its links to particularly urban informal sector have yet to receive the attention they deserve. In 2009–10, about 30% of the urban workforce was informally employed and half of that was self-employed and half was wage-employed. "The first ever estimates of domestic workers, home-based workers, street vendors, and waste pickers indicate that these groups represented 33 percent of total urban employment and 41 percent of urban informal employment in that year. Home-based work was the largest sector: representing

18 percent of total urban employment and 23 percent of urban informal employment" (Chen and Ravindran 2012). In India, though large national surveys have some information on employment, but hardly have any information on the working and living conditions of temporary urban migrant workers. Scattered micro studies bring to light several disadvantages faced by them. Often, the very recruitment process through labor contractors puts migrant urban workers at a disadvantage. The advances made at the time of recruitment may turn into a kind of semi-bondage in some cases (de Neve and Carswell 2013). The migrant workers are hardly organized and have very little bargaining power. They are mostly employed in the unorganized sector without any regulation and this compounds their vulnerability. They suffer from longer working hours, poor living and working conditions, social isolation, and poor access to basic services (Srivatsava and Shahsikumar 2003). The abominable living conditions affect their health, and in several cases health expenditure wipes out a substantial part of their earnings (Pattenden 2012). Since there is no registration system and portable identity, they do not have access to health care, facilities for children's education, or access to even the public distribution system (Deshingkar and Start 2003). Many of the temporary migrants have dual livelihoods, earning in season in agriculture and moving for non-farm work in urban areas in the off-season (Coffey et al. 2011) and have stretched-out life worlds with families often left behind in the place of usual residence in villages (Rogaly and Susan 2012). A study focusing on slums finds it "difficult to assert that migrants have benefited significantly at the place of their destination".

India, which is known for making extensive laws regulating labor conditions, hardly has any legislative measures protecting the working and living conditions of temporary migrant labor, and the general laws on contract, minimum wages, payment of wages, maternity benefits and so on are hardly implemented in the case of migrant workers (Srivatsava 2005; Deshingkar and Akter 2009). Temporary migrant workers in India, being mostly in the informal sector, hardly have any basic social security measures like old-age pension, health and life insurance or employment security or unemployment allowance.

According to estimates based on NSSO data, in 2004–05 over 10% of non-agricultural workers resident in rural areas commuted to work in urban areas, as did another 10% who had no fixed place of work, meaning they also worked for sometime in urban areas. There was also urban-to-rural commuting by non-agricultural workers to the tune of over 4% of urban non-

agricultural workers (Mohanan 2008). Over the years, there has been an increase in the phenomenon of rural-urban and also urban-rural commuting for work. In 1993–94, only 6.34 million individuals were moving between rural and urban areas for work, but by 2009–10 about 12.42 million workers engaged in non-agricultural activities crossed the rural-urban boundaries every day (8.05 million rural-urban commuters and 4.37 million urban-rural commuters). In addition, 12.2 million non-agricultural workers reported not having a fixed place of work (Sharma and Chandrasekhar 2014), and it may not be wrong to assume that a substantial proportion of this group would also be moving between rural and urban areas. In China, for instance, the restrictions on migration to large cities appear to have attracted migrants to small towns within a small radius, and it was observed that the number of commuters was more important than the number of those who actually worked in their place of residence. A study of the Jiangsu Province in the mid-1980s shows that "daily commuting from surrounding rural villages accounted for up to 43 percent of the daytime urban population" (Satterthwaite and Tacoli 2007). In the context of emerging economies, there has been no systematic study on the factors influencing decisions in favor of commuting and the impact of these decisions. Some emphasize greater attention to access to services, work, and basic needs where people reside which would help in cutting down on time-consuming, energy-draining and disruptive movement. There is an equally strong argument that commuting would reduce pressure on small towns and, in turn, on the larger cities and at the same time enable the commuters to retain their links to local communities as well as part-time farming. Besides the labor market conditions, the role of public policy relating to transport facilities and basic needs is an important factor in commuting decisions.

The recent developments in the nature of urbanization in India—driven by small-town growth, the increasing rural-urban migration with the predominance of temporary or seasonal migration, the increasing share of rural and urban informal non-agricultural employment, the spillover of formal enterprises to rural areas, the growth of rural-urban and even urban-rural commuting for work and its vast potential in the context of small town–driven growth—present huge challenges and opportunities toward better employment and working and living conditions of the vast majority of labor who are drawn into the space of the rural-urban continuum in India. The challenges have aggravated over the years because of callous neglect and even certain antagonistic approaches to urbanization and migration.

In India's development planning, there had been a strong negative attitude toward urbanization for a long time and a total absence of any systematic policy toward migration. And often migration was treated as a source of urban problems. In the 1960s, the Planning Commission's Research Programmes Committee sponsored a survey of 21 cities with the specific objective of designing a strategy to control over-urbanization and migration (Bulsara 1964). In the 1960s, there was a dominant view that India was facing over-urbanization and that rapid urbanization was a threat to economic growth and would result in urban misery (Sovani 1966; Sharan 2006). On the contrary, there is growing evidence to show that urban poverty is not due to rural-to-urban migration. "Widely heard concerns about the urbanization of poverty in the developing world have been neither well informed nor cognizant of the broader economic role of urbanization in the process of overall poverty reduction" (Ravallion et al. 2007). All of the claims about rural poor flocking to the city and adding to poverty in urban areas are unfounded, and urban poverty is not a result of push factor (Hashim 2014). Furthermore, the evidence shows that poverty is not the key factor in migration (Kundu and Sarangi 2005). Owing to a lack of resources, the poorest, with the exception of bonded labor, cannot migrate. It is the relatively less poor and non-poor, even in the case of temporary or seasonal migration, who could access resources to move. Almost until the 10th Five Year Plan, the official attitude toward urbanization was negative and saw the process as a problem (Kundu 2014; Hashim 2014). For the first time, the Tenth Plan expresses concern that "the moderate pace of urbanization in the country has been a cause of disappointment", and it took the Eleventh Plan to accept the fact that "the degree of urbanization in India is one of the lowest in the world" (Planning Commission 2013).

Ironically, the recognition of the need for urbanization in the context of globalization and liberalization gave an entirely neoliberal turn to the newly evolving urban policy during the Tenth and Eleventh Plans which placed the thrust of the urban growth strategy onto "increasing the efficiency and productivity of cities by deregulation and development of land" and pleading for "dismantling public sector monopoly over urban infrastructure and creating conducive atmosphere for private sector investment" (Kundu 2011). There was a clear class bias and "elite capture" of the emerging urban policy and governance by segmentation of the affluent others of the city and by shifting of the poor in slums to periphery of cities from the core of the residential areas with gross inequalities in access to services. The new

urban policy, including the Jawaharlal Urban Renewal Mission, reflected a lack of integration of economic aspects such as livelihood with infrastructure issues such as housing and basic services and of infrastructure with social development such as shelter, security, basic services, and locational issues with access to and impact on health and education (Mahadevia and Sarkar 2012). There is a process of exclusionary urbanization with a hostile social environment to the working class, land-use restriction, evictions of petty business and production activities, and pressure exerted by better-off residents and courts to remove unplanned growth (Kundu et al. 2003). The result is that the working class in urban areas faces three serious vulnerabilities: residential, occupational and social. They face dismal basic infrastructure facilities like poor housing, drinking water, electricity and sanitary facilities (Hashim 2014). These conditions hold the potential for creating social conflict and instability, indicating the need for a change in policy for inclusive urbanization (Saxena 2014).

The most neglected are the small towns, which hardly figure on the radar of the present urban policy and have been deprived of resources. It is well established that the incidence of poverty is much higher in small towns. In 2009–10, poverty in metropolitan cities was relatively low at 14%, whereas in small towns with a population of less than 20,000 it was as high as 30%. The situation in small towns in less developed states in most cases is dehumanizing, and urban planning is almost non-existent (Hashim 2014).

While it took over five decades to accept the reality of the need for urbanization and launch an urban policy, in the case of migration even to this day there appears to be no clear sign of any move toward a policy. There are apprehensions that the government continues to see migration as having a negative impact by congesting urban space and crowding jobs. It is pointed out by the World Bank (2009) that current policies that prevail do not allow communities to fully capture the benefits of labor mobility, and, on the contrary, the measures to discourage migration through rural employment programs and create social barriers and hostile urban environment to the entry of poor migrants are cited as methods of countering migration. There are very few protective laws for migrant workers, and there is even a failure of implementation of some of the basic laws to ensure minimum conditions of work. Most of the migrants, especially the temporary workers, do not enjoy any formal social protection and at the same time are denied certain rural social welfare entitlements like access to the facility of public distribution system, cooking gas,

and even the Rashtriya Bima Yojana (health benefits) since there is no portable enforcement of these measures. The present urban strategies, along with the social barriers and hostile elite capture of urban facilities and development, make it difficult for migrant workers to gain a firm foothold in the urban economic and social space.

Concluding Observations

It may be helpful to begin by recalling the template on which this chapter started: that India is home of the largest share of the rural population in the world and it is also home of the second largest share of urban population in the world and this unique position is not likely to change for decades to come. But what has been happening between the rural-urban spaces by way of interaction in terms of generation of employment, income, wealth and distribution is undergoing fast change and is likely to be critical in the immediate context of development as much as in the future. In this evolving process, urbanization and migration are the two legs to walk the progress along the rural-urban continuum. Accordingly, urban and migration policies should reflect a cohesiveness as part of an overall vision of development. Of late, urbanization in India has also acquired certain unique features driven by the growth of small towns. It is clearly a kind of gradation and not a divide of the rural-urban continuum (Chatterjee et al. 2015). In a vast country like India, the emergence of such a large number of small towns across the length and breadth of the space interspersed by rural settlements is a great advantage in promoting a balanced development of urbanization with large cities and small towns as integral parts that facilitate the ease of mobility of resources, including human resources. From the point of view of employment, there are, as shown earlier, clear trends of formal manufacturing sector units moving away from urban into rural locations while informal sector units are moving from rural to urban locations, and the secular trend for India's manufacturing urbanization has slowed down (Ghani et al. 2012). It is here that the small-town network and the importance of localized development of infrastructure, education and basic civic amenities assume high priority.

The approach to migration in India justifies the criticism that migration has been overlooked in the overall economic development strategy, that there is a discernible negative attitude of the government, and that current policies do not allow communities to fully capture the benefits of labor mobility (World Bank 2009). The result is that migrants often end up as

victims of the development process. But the basic question is how to turn migrants, whose contribution to development is not only significant but also essential, into gainers of the development process. There is a need for a comprehensive migration policy that incorporates certain basic requirements to ensure decent work and living conditions with a focus from the bottom of temporary migrants up to others: first, to evolve a human development approach to migrants by creating education and skill development facilities both at the source and destination areas to improve the capabilities (UNDP 2009); second, to ensure legislative measures to protect migrants' rights and basic needs; third, to evolve appropriate welfare policies that would ensure location-specific entitlements to social sciences, housing subsidies, food rations and other public amenities. The path toward decent work and better living across the rural-urban continuum lies in the effective design and implementation of these policies.

Notes

1. The definition of urbanization adopted in India is considered restrictive since it uses three-dimensional criteria involving not only size of population but also density and occupation. A place is classified as urban if the size of population is 5000 or more, the density is 400 people or more per square kilometer, and at least 75% of male workers are in non-agriculture. In many countries, "urban" definition of a place has a much lower population size and often no other criteria.
2. "Census town" is defined as a settlement which fulfills all three criteria of urban settlement but is not statutorily declared as a "Municipal town" or a "statutory town". Census towns are governed by Panchayats, but the population is treated as a part of the urban population.
3. The terms temporary, seasonal, or circular migration are often used synonymously. Of these three terms, "temporary" is a preferred term because, besides accommodating both "seasonal" and "circular" notions, it takes into account longer periods than what is implied by a season. Increasingly, temporary migrations are periods which are for ten months or more.

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CHAPTER 4

Chinese Land Institutions: Peasant Workers, Industrialization, and Urbanization

Jinqing Cao, Yuqin Huang, and Ming Gao

Introduction

This chapter tries to unravel the complex intertwining between the land institutions, the peasant-worker issue, industrialization, and urbanization in the past three decades in China. The chapter consists of two sections: the first section focuses on how Chinese land institutions have impacted and in turn been affected by the industrialization and urbanization processes in China, and the second section looks at the issue of peasant workers and how it has brought opportunities and also presented challenges for the urbanization process. Finally, we add an appendix giving a brief history of Chinese land institutions in modern China since 1840.

J. Cao (✉) • Y. Huang
Department of Sociology, East China University of Science and Technology, Shanghai, China

M. Gao
Department of Cultural Studies, School of Liberal Arts, Shanghai University, Shanghai, China

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Land Institutions, Industrialization, and Urbanization in China

Between 1982 and 1984, after being used in China for over 20 years (1958–1982), the people's commune system was abolished. In its place, a "household contract responsibility system" (*jiating lianchan chengbao zeren zhi*), in which land was owned by the collective (that is, the villages) while the peasants were endowed the right of use, was established. The land was allocated on the basis of population, and as a result, land ownership and land-use right were separated. In January 1987, the Chinese government issued the "Land Management Law of the People's Republic of China" ("Land Management Law of PRC" hereafter), which laid down a series of regulations regarding the state's expropriation of the land owned by the collective and the compensation standards for the peasants who lost their land during the expropriation. In our opinion, this new land institution and "Land Management Law of PRC" provide an important perspective to understanding the high-speed and low-cost processes of industrialization and urbanization in China during the past 30 years. However, this angle is often neglected.

The "Household Contract Responsibility System": Ambiguous Land Ownership and Its Social-Economic Implications

According to the post-1982 land institutions, rural land in China, including farmland, homesteads, forest land, land for collective infrastructure, and so on, is to be owned by the collective. But as for who is the collective, the answer is ambiguous. The source of the ambiguity comes from the land institution in the people's commune era, which set the rule that the land ownership was "based on the production team, and shared by three levels of organizations" (*dui wei jichu, sanji suoyou*). The "three levels" refer to the people's commune, production brigade (*shengchan dadui*), and production team (*shengchan xiaodui, natural village*). That is, rural land was owned by these three levels of organizations, but the operation and use right belonged to the production team. A production team often consisted of 20–30 households, while some bigger teams had 50–60 households. These households worked together, and the distribution of land was based on labor. For most purposes, a production team was formed on the basis of a natural village. Established after the failed "Great Leap Forward" campaign in 1958–1961, the people's commune system

chose the "natural village—production team" as its basic economic accounting unit. This had proven to be effective.

The people's commune system was an "integration of government administration with commune management". "Government administration" referred to the lowest level of state regime in the country, while "commune" was the highest level of collective organization of the peasants. After the abolition of the people's commune in 1982, the former "government administration" within the Commune was restructured to become township governments (*xiang zhengfu*) or town governments (*zhen zhengfu*). By the end of 1984, there were over 85,000 township governments. Furthermore, the former "brigades" transformed into "villagers' committees" (*cunmin weiyuan hui*). Legally, villagers' committees were villagers' autonomous organizations, which were supposed to hold elections every three years. In reality, villagers' committees, which were below the township government, often became a part of the state regime. By late 1984, there were over 700,000 villagers' committees all over China. The former "production teams" in the people's commune were transformed to "villagers' teams" (*cunmin xiaozu*). But when farmland was allocated to individual households by the villagers' committee or villagers' team in the early 1980s, the villagers were not clear about the ownership of the land. In the late 1980s and early 1990s, when we did surveys in the villages in many parts of China, we asked: "Who owns the land?" The answers from both ordinary villagers and village cadres were the same: "The state owns the land". Even though, legally, farmland was under "collective ownership", in the perception of both ordinary peasants and local cadres, farmland was owned by the state. This perception, obviously, was an idea that they had been used to during the people's commune era. After 1982, even though the old system had ended and the land institution had undergone some changes, rural households and the grassroots autonomous collectives (including both villagers' committees and villagers' teams) did not have a clear understanding of this change. In fact, even nowadays, the "villagers' committee" has not exercised their land ownership rights.

It is exactly because of the ambiguous nature of the "collective" in the "collective ownership" of land that ordinary Chinese peasants and local cadres in general still believed that "the state owns the land", even after the implementation of the "household land responsibility system". This misunderstanding has had great economic and social implications; that is, it has facilitated the expropriation of farmland for recent industrialization and urbanization and for large-scale infrastructure construction in China.

The Content and Intention of "Land Management Law of PRC"

Issued in 1986, the "Land Management Law of PRC" came into effect in January 1987. According to the law, nationally, there are two types of land ownership: state ownership, which means that land in cities is owned by the entire people, and collective ownership, which involves land in the countryside and suburban areas of cities as well as land used for homesteads, household plots, and hilly land allotted for private use. The law also says that, for the sake of "public interest", the state has the right to expropriate land that is under collective ownership. After the expropriation, the land becomes state-owned, and those who use the land have only the right of use. More importantly, the law also specifies the compensation standards for the expropriated land. Paid by the land user, the compensation consists of three parts: compensation for the land, which is supposed to be equivalent to three to six times the average yearly output of the land during the previous three years; compensation for resettlement, which is equivalent to two to three times the average yearly output of the land during the previous three years; and, finally, compensation for the attachment and crops on the land, which is to be decided by the provincial governments.

What is noticeable here is that the compensation standard is based on the "average yearly output of the land during the previous three years". This means that the former owners of the land and those with usage rights are excluded from enjoying the "added value" of the land expropriated for non-farm use. In other words, the enormous "added value" of the land from being used for industry and commerce can be appropriated only by "the state" or "the capital". Furthermore, the law sets only the upper limit of the compensation but not the lower limit. It says that the total compensation cannot surpass 10 times the average output of the previous three years. According to Term 29 of the law, if the compensation for the land and for resettlement cannot guarantee the peasants the same living standards as before, the provincial governments can increase the compensation for resettlement, but the total compensation for the land and for resettlement cannot surpass 20 times the average output of the previous three years. As for how the compensation is distributed among the village collective, the rural households whose land is expropriated and the employers who hire the peasants who have lost land, the distribution varies from region to region and thus it is difficult to give a general answer.

China started constructing its first freeway in 1984, and two years later, the "Land Management Law" was issued. One cannot help thinking about the intention of this new law; that is, it was established to provide cheap land for the industrialization and urbanization processes and large-scale infrastructure construction in China. By 2014, China had built over 100,000 km of freeway, a dramatic increase from 500 km in 1990. At the same time, in 2014, the Chinese railway tracks were over 100,000 km long in total, in contrast to 55,000 km in 1985. By 2014, high-speed rails in China amounted to 16,000 km in total.

This land management and compensation law has had a great and far-reaching impact on China's economy in the past 30 years since the reform and opening up in the early 1980s. It has resulted in a "material-centered" urbanization, in contrast to the "people-centered urbanization" promoted by the Chinese Communist Party (CCP) in recent years. "Material-centered" urbanization means that what has been urbanized are mainly materials, including large amounts of expropriated land, trees, and stones in the countryside, but not the peasants. In this type of urbanization, peasants are not considered as whole persons, but as peasant workers who enter industry and commerce in the city as labor force, and are excluded from urbanization as laborers by the household registration (*hukou*) system (Fig. 4.1).

The above-mentioned "Land Management Law of the PRC" and material-centered urbanization have both positive and negative effects on China's development. We will focus on the negative side first. After the

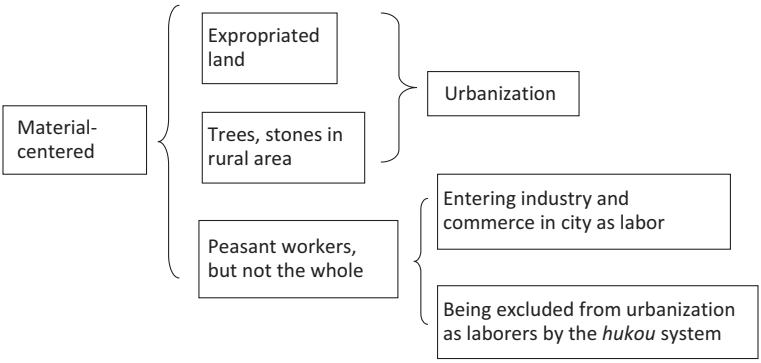

Fig. 4.1 Material-centered urbanization

implementation of the law, various levels of the Chinese government started requisitioning the farmland contracted by peasants with low compensation on a large scale. This has become the main reason behind peasants' collective protests in many parts of China. The way in which these requisitioned lands have been leased is also not transparent, which has become one of the major causes of local officials' corruption. Indeed, from their non-farm usage, the expropriated lands have gained substantial "added value", and one of the major socio-economic issues in contemporary China is that of how to justly distribute this added value. During China's transition from a planned economy to a partial market economy, the poor-rich polarization has been greatly intensified. Many reasons contribute to this trend, but undoubtedly the "Land Management Law of the PRC" issued in late 1986 that regulated the requisition, compensation, and lease of land has been the most important impetus. Examining many cases of corrupt government officials who have now been brought to justice, we realize that their huge assets are gained mainly from leasing or selling land. Between the early 1990s and early 2000s, the richest group of people in China was mostly real estate developers. Colluding with local officials, they could buy land at low costs, which was essentially how they had become rich in the first place. As for the peasants who lost farmland, they had to become "peasant workers". At the same time, "material-centered urbanization" has resulted in the fact that China's urbanization is left far behind by the industrialization process. This is a sharp contrast with what has generally happened in other Third World countries, where industrialization always lags behind the urbanization process.

The exploitative land law, of course, is also subject to changes. For example, in 1998, the "Land Management Law of PRC" underwent a second revision in which it still used the average yearly output of the land during the previous three years as a base, but the land compensation was raised to be equivalent to six to ten times of this base, in contrast to three to six times in the old version. Furthermore, the compensation for resettlement rose from two to three times the base to four to six times. However, the revised law still set an upper limit but not a lower limit for the total compensation; for example, it stated that the total compensation for land and resettlement could not surpass 30 times the base. After 2005, owing to the rapid development of their industries, the local governments in eastern coastal areas further raised the compensation standards for peasants who lost their contracted land. This was a result of peasants' collective protest and pressure from the central government. In recent years, the

compensation patterns of the eastern areas could be summarized as follows: firstly, "to trade old housing for new housing" (*yifang huanfang*); that is, the peasants can exchange their old housing in the countryside, which was not tradable, for new housing of the same size in the township, which could be traded.

Secondly, "to trade farmland for social welfare" (*yidi huanbao*); that is, the peasants could get society endowment insurance enjoyed by the urban population upon giving up their contracted farmland. This pattern is acceptable to rural young people, most of whom have been engaged in industry and commerce. According to an official statistic, in 2014, 80% of land transfer fees were used to cover the compensation for land and resettlement of the peasants who lost their contracted land. Then again, along with China's transition from high-speed to intermediate-speed economic development (that is, the so-called "the new normal"), the phase during which farmland is requisitioned for infrastructure construction on a large scale is gradually drawing to a close.

On the positive side, the land law has become one of the most important driving forces behind China's high-speed development. We will mainly focus on two aspects. Firstly, there are four main non-farm usages for the requisitioned land and they are subject to different rent policies. This has some socio-economic implications. During the past 30 years or so after the reform and opening up of China, over 100 million *mu*[1] of farmland have been taken over by the state all over the country. Another 100 million *mu* of farmland have been returned to forests, lakes, and grasslands. The existing farmland in China amounts to 1.82 billion *mu*, and in 2014, the government proposed that China needed to "make sure that the total amount of arable farmland should not be under 1.80 billion *mu*".

The requisitioned land is often used for several different purposes: firstly, infrastructure construction, including highways, railways, airports, and ports; secondly, for public facilities construction such as government buildings, city plazas, green areas, schools, and hospitals; thirdly, for industry; and, finally, for commerce, which also includes commercial residential housing. According to the law, the lease term of land for industrial use is 50 years but for commercial use is 70 years. In China, gross domestic product growth rate and local fiscal revenue are the most important criteria to evaluate government performance and also key references for local officials' promotion and awards. Listed as a part of land finance revenue, land transfer fees are a substantial portion of local financial income. Therefore, under the pressure of performance evaluation, various levels of

government compete with each other to attract investment and capital. They often employ similar means (that is, offering land with low transfer fees). Some cities, counties, or towns even provide free land. As a result, land rent often is not a part of the costs of all sorts of industrial products made in China. According to classical economics, the value of a commodity consists of land rent, labor, and interest. But commodities made in China are exclusive of land rent, which has greatly added to their competitive power in the international market. This has further attracted labor-intensive capital flowing from developed countries and regions to China on a large scale. As a result, the flooding in of capital created enough space for the transfer of surplus labor force, which had accumulated for a long period of time in the countryside and in agriculture, to industry and commerce in urban areas. Between 2003 and 2005, the transfer of the Chinese labor force from traditional sectors to emerging sectors was approaching the so-called "Lewis turning point". One remarkable sign was that, since 2003, the wages of peasant workers, which had remained low for a long time, saw a sudden rise. The trend continued for over 10 years after that. In 2014, the average monthly wage of peasant workers was 2600 CNY. To provide some background, the peak of China's birth rate was 2.33%, seen in 1987. After that, the birth rate had continued to drop, reaching 1.22% in 2012. China's strictly implemented family planning policy and urbanization process are the main driving forces behind the declining birth rate. The population working in the first sector—that is, agriculture—rose from 280 million in 1978 to 390 million in 1991, after which it began to decline and reached 258 million in 2012. In 2012, each of the three sectors engaged about one third of the Chinese labor force respectively.

The land lease policy and the fact that China's labor force distribution has reached the "Lewis turning point" also have their economic and political implications. At the moment, there are mainly three forms of "capital" in China: state capital, private capital, and foreign capital. The lands needed by all three forms of capital are state-owned land controlled by various levels of government, which came under state ownership through the government's requisition of that land from the hands of the collective. In other words, "capital" can get land from the government only by way of a "land lease". This has complicated the relationship between private capital corporation (or capitalist class), which keeps growing with the expansion of private capital, and the government (the state). Both domestic and overseas political liberalists have been expecting a "democratic"

political transformation" in China but this has not actually been realized. We suggest that the aforementioned land institution in contemporary China might not be the symbol for so-called "democratic" political transformation". Of course, since it is various levels of government that directly expropriate land from the peasants, the conflicts between "capital" and "the ownership of the land" in the past have transformed into conflicts between the peasants who lost their land and the local governments.

For a country that is undergoing the transition from an agricultural economy to an industrial economy, experiencing the "Lewis turning point" is of great significance as it has hugely relaxed tense industrial relations. Before this turning point, owing to the giant number of the "surplus laborers" in rural China, the laborers were at a disadvantage in market negotiations with the capitalists. That is why peasant workers in China have been in a situation of low pay, long working hours, and poor labor conditions for a long time. But after 2003, when China strode over the "Lewis turning point", we found that in order to stabilize the labor force and prevent the turnover of skilled staff, the capitalists did compromise to meet the employees' demands or take the initiative to raise their pay and grant other benefits. At the moment, the frequent conflicts between capital and labor mostly happen under the context of arrears of wages, which often take place in the construction industry.

Peasant Workers and Urbanization

Peasant Workers and Rural-Urban Migration

It is a common phenomenon that peasant workers migrate between rural and urban areas in countries that are in the process of industrialization and urbanization.

It is only through industrialization and urbanization that surplus rural labor (including both absolute surplus and seasonal surplus) can be provided with outward employment opportunities. Generally speaking, the term "peasant workers" refers to the laborers who maintain a small piece of land in the countryside and receive non-agricultural income at the same time. Peasant workers can be categorized into three groups. The principal income of the first group is agricultural earnings, and irregular non-agricultural income is supplementary. This group of peasant workers is usually employed close to their villages. The second group of peasant workers has regular industrial and commercial income, and their agricultural income

is supplementary. The third group of peasant workers sub-leases their lands and has worked in the cities for years.

The phenomenon of "peasant workers" also existed after the establishment of the German Reich in 1871. Engels once researched and analyzed this phenomenon. He investigated the co-relation between the lower prices of German products (compared with the prices of English and French products) and the low income of peasant workers of the German working class (Engels 1972). According to his analysis, the labor wages of German peasant workers equaled their total income minus their agricultural earnings from small pieces of land. In other words, earnings from small pieces of land filled the income gap that was actually exploited by German industrial capital. This was also the reason why German products could afford to bear cheaper prices than English and French ones. The low prices helped German products secure a place in the advanced England market. However, according to the experience of peasant workers, their perseverance in holding their small pieces of land was for social security considerations. They aimed to make land their last hope on which they could make a living when the urban unemployment crisis came. Lenin once also investigated Russian "peasant workers" of Russian capitalist industrialization (Lenin 1972). He agreed with Engels.

Special Characteristics of Chinese Peasant Workers

The special characteristics of Chinese peasant workers are first determined by the Chinese Land Institution. In 1987, the state enacted the powerful law (that is, "Land Management Law of PRC") to bind billions of Chinese peasants with their household contracted lands. (From 1982 to 2003, the lands contracted by various households were burdened with heavy responsibilities. The peasants were responsible for turning in state agricultural tax and five types of collective fees. All the tax and fees were gradually abolished from 2004 to 2006. Chinese peasants and their contracted lands altogether have contributed around 150 to 180 billion Chinese yuan [CNY] of taxes and fees from the establishment of the PRC to the end of 2006. In 2000, the National Agricultural Output, excluding forestry, livestock, and fishing, was 1400 billion CNY.) Second, the special characteristics of Chinese peasant workers are shaped by the household registration system that divides rural and urban areas. The household registration system that prevents laborers from moving freely was established in 1958 and, after 1961, became even stricter. Although the pre-requisites for peasant

workers to register in the urban household system have been loosened since the mid-1990s, the system itself has not been abolished yet. Owing to the Land and Household Institutions, Chinese peasant workers possess the attribute of "identity group", to borrow the term from Max Weber. They do not belong to ordinary employees' social strata. According to these two institutions, peasant workers are permitted only to work in the cities but are not allowed to obtain urban household registration Thus, peasant workers are not entitled to enjoy urban citizens' social protection and welfare. Many Chinese scholars call this phenomenon "Chinese urbanization lagging behind Chinese industrialization".

Chinese Peasant Workers in Secondary and Tertiary Sectors

According to the official statistics of 2013, there were 269 million peasant workers all over China; 56.8% of them, or 150 million peasant workers, worked in the secondary sector, and more than 30 million of them were in the construction sector), which accounted for 64% of the total number in the manufacturing sector. The other 42.6% of peasant workers, numbering 120 million, were employed in the tertiary sector; 76.76 million peasant workers (that is, 28.3% of the total number) had left home to work trans-provincially. The average monthly wage of peasant workers in 2013 was 2600 CNY (National Bureau of Statistics 2014). For most peasant workers, their wage income immensely exceeded their earnings from small pieces of land back at home.

In 2014, China's urbanization rate, calculated on the basis of the number of urban permanent residents, was 52%. Permanent residents are composed of people with urban household registrations and those who have held stable jobs and residence in cities for more than 6 months. When only people with urban household registration status were counted, the urbanization rate dropped to 36%. The gap came from the number of peasant workers.

Shift to "People-Centered Urbanization Strategy"

After the 18th National Congress of the Communist Party of China, the Shift to "People-Centered Urbanization Strategy" Gradually Helps Peasant Workers Acquire Urban Household Registration. In 2013, the State Council of the PRC issued the "Adjust Urban Planning Standard" (*Guanyu Tiaozheng Chengshi Guihua Biaozhun*) and "National Plan on

New Urbanization" (*Guojia Xinxing Chengzhenhua Guihua*). In the two policy documents, Chinese cities and towns are divided into seven grades out of five types according to their population scales[2]. The policies have also set out "differentiated urban household registration rules" (*youchabie de luohu zhengce*) (that is, the pre-requisites for peasant workers to register in the urban household system).

The five types and seven grades of cities and towns are as follows. First, if the number of permanent residents of a city is below 500,000, then the city is classified as a "small city". Small cities can be further distinguished into two grades. The population of Grade I numbers between 200,000 and 500,000. In 2010, there were 380 Grade I small cities. Small cities of Grade II, including 20,000 administrative towns, have populations fewer than 200,000. In these small cities, peasant workers can apply for urban household registration as long as they have "stable jobs and residences (including rented living places)". In fact, the household registration of small cities is now completely open to peasant workers.

"Medium cities" are those with 500,000 to 1 million permanent residents. "Big cities" also have two sub-types. Cities of Grade I have 3 to 5 million people, whereas cities of Grade II have 1 to 3 million people. According to the "National Plan of New Urbanization", "the urban household registration of medium cities should be open in order for people to apply but with restrictions" (*youxu kaifang luohu xianzhi*). As for big cities of Grade II, the two policies have announced the principle of "reasonably relaxing the restrictions over household registration". Specifically, peasant workers who want to apply for urban household registration certificates not only are required to have "stable jobs and residences" but also are asked to "join in the urban social security system". However, there is an upper limit for the second requirement. Peasant workers are eligible to apply for urban household registration certificates only if they have been in the social security system for no more than 5 years. For big cities of Grade I, the period of being in the social security system is extended longer than the required length in big cities of Grade II. Compared with the policy requirements for big cities of Grade II, the principle for big cities of Grade I is also changed to "reasonably setting up the restrictive conditions" for urban household registration application.

"Extra big cities" usually have a population of 5–10 million. "Strictly control the urban population" is the policy principle for this type of city. The "National Plan of New Urbanization" requires local governments of

extra big cities to implement Tier evaluation systems to handle urban household registration applications. The Tier evaluation criteria are based on employment years, education background, and particular skill levels that are needed by the cities.

The permanent residents of super big cities or metropolitan cities, such as Beijing, Shanghai, Guangzhou, and Shenzhen, number beyond 10 million. These cities have more restricted guidelines for urban household registration application. Moreover, they intentionally emigrate industries of "heavy pollution, high energy consumption, insufficient usage of land, almost zero contribution to tax" out of the cities. Peasant workers of these industries are also excluded.

The purpose of the Plan is obvious. It is medium and small cities that undertake the responsibility of urbanizing billions of peasant workers. The key question is, is it effective? The Plan fails to identify the fact that small cities are not capable of providing sufficient and stable job opportunities. They do not have the comparative advantage necessary to attract a large amount of industrial and commercial capital. Big cities are more powerful in gathering large amounts of capital and consequently providing a large number of job opportunities. Small cities and towns are open to peasant workers, but stable employment opportunities are inadequate there. Whereas big and metropolitan cities have a great number of working opportunities, they strictly control the peasant workers from entering the urban household registration system. Thus, the Plan is merely an armchair imagination, reflecting only the Plan designers' worries about "city disease", which is the outcome of the rapid growth of the urban population.

Two Crucial Problems: Evaluation Facilities and Social Security for Peasant Workers

The first urgent demand is for education of the children of peasant workers in the destination cities: Each local government is responsible for taking care of China's nine-year compulsory education in their own administrative region. Children with local household registration are supposed to go to local schools. Each administrative village has one primary school (from grade 1 to 6), and each town has one or two high schools (from grade 7 to 9). Senior high schools are established in counties. From the mid-1990s onward, peasant workers who were originally from central

and western parts of China started to work in the eastern coastal cities. Some of their children, who were not able to migrate with their parents, became "left-behind" children (*liushou ertong*). The rest of the kids moved with their parents but were not entitled to study in the public schools of urban destinations. Therefore, in the eastern coastal cities, private schools for sons and daughters of peasant workers emerged in large numbers. In 2004, in Shanghai, for example, more than 400 schools were private "schools for sons and daughters of peasant workers". At the very beginning, the Shanghai municipal government did not welcome this type of school. Later, the government showed an acquiescent attitude. This type of school was not incorporated into the public education system until 2007. However, new problems occurred afterwards. The question arose of whether, after graduating from junior high school, the children of peasant workers were allowed to take part in the senior high school entrance exams. There is still no solution to this problem in Beijing, Shanghai, Jiangsu province, and Zhejiang province. The key problem is whether these children of peasant workers are permitted to enjoy urban educational resources. In central and western regions of China, the schooling demands are gradually met (Donzuso 2015).

The second urgent demand is for social insurance accumulation all over the country: China's social insurance fund is comprised of four parts: occupational injury insurance, medical insurance, pension insurance, and housing reserved fund. When peasant workers sign contracts with the employers, only the first three types of insurance are covered in the contracts. Both peasant workers and employers are responsible for making monthly payments for some proportion of their insurance (usually, the part paid by the employees is two thirds of the total social insurance fee). If peasant workers quit and move to other cities or provinces, they are able to take away only the money they themselves have paid for their social insurance. They are not allowed to take away the part paid by their factories. This has discouraged peasant workers from paying for social insurance. In recent years, Chinese academia and media have urged the government to establish a system that allows the social insurance funds to be transferred and accumulated wherever the peasant workers go and work. In other words, they hope that all the social insurance funds paid both by the peasant workers themselves and by the factories in one city and in one factory will follow peasant workers to their new destination city. If the system of "transfer and accumulation" is established, peasant

workers will hopefully receive a decent amount of pension fees. However, the system is far from ready, as the institution of pension is subject to provincial jurisdiction. It is neither the right nor the responsibility of the central government. Then the disparities between different regions and different cities become the force holding back the development of a national unified pension system (Qin and Zhou 2015).

The Debate Over the Insufficient Urbanization and Policy Suggestions

There are three types of arguments that explain the insufficient urbanization of Chinese peasant workers in China. Each of the arguments has its own theoretical highlights. The three focuses are constraints brought by the household contract of land, exclusion of the urban household registration, and the stage of Chinese industrialization.

Argument 1: Constraints Brought by the Household Contracted Land
It is difficult to urbanize peasant workers who already work in the cities, because the household contract responsibility system has bound up peasant workers to their small pieces of land. They are constrained by their "peasant" identity. Scholars who uphold this type of argument advocate for land privatization. To be more specific, they propose changing the current land usage contract to full private ownership by the peasants. They believe that it is only through land privatization that China can prevent land enclosure conspiracy by the officials and the businessmen. Furthermore, it is only through land privatization that peasant workers will be able to sell their land and houses back at home to obtain the basic qualification of urbanization. (They could afford apartments in cities with the money they receive from selling land and houses.)

Argument 2: Exclusion of the Urban Household Registration
The long-standing household registration system divides the rural from the urban and excludes peasants from the urbanization process. In the early years of the PRC, the household registration system was established for the industrial sector to gain surplus value from the agricultural sector. Now, with the primary accumulation of the industrial sector being finished, China has come into the age of "industry reversely fostering agriculture".

In this new age, the household registration system ought to be abolished. After the barrier is removed, peasant workers can choose freely between urbanized life and rural life (Lu 2012). What lies behind the household registration is the fact that China has serious economic and welfare disparities between rural and urban areas and between eastern, central, and western regions. The disparities would not vanish even if the household registration system were removed. For example, the unemployment compensation in Shanghai is approximately 600 CNY per month. If all the unemployed peasant workers in Shanghai were also entitled to receive this compensation, more peasants would rush into Shanghai for the compensation fee, as their earnings from the contracted lands are surely less than 600 CNY per month. Is Shanghai municipal government capable of handling this situation?

Argument 3: The Current Development Stage of China's Industrialization Influences the Urbanization of Peasant Workers

After World War II, all the newly independent countries endeavored to transform themselves from agricultural to industrial societies and from rural to urban. In the processes of transformation, all of the countries have witnessed the emergence of peasant workers, who move between the rural and the urban areas. The percentage of peasants who are peasant workers is decided by four factors: the cultivated land per capita, the level of concentration of land ownership, and the speed and the scale of industrialization. (In addition, the implementation of family planning and the level of agricultural mechanization play important parts in the emergence of peasant workers.) Are the peasant workers, who already work in the industrial and commercial lines of the cities, able to be fully urbanized "safely with protection"? To be more specific, can they get unemployment insurance, medical care, retirement pension, and housing funds? Two aspects are decisive: the industrial development stage of a country, or the place a country takes in the value chain of the global industrial division of labor, and the political will to pay attention to the peasant workers of a country, or, in other words, the political pressure of urbanization exerted by the peasant workers on the country. These two aspects are indispensable in advancing the urbanization of peasant workers, and the first aspect is especially important (Yao and Zhang 2012).

Millions of Chinese peasant workers have been absorbed into industrialization, but they are urbanized to a far lesser extent. Urbanization has lagged behind industrialization. The institutions of household registration and land system are only superficial reasons for the insufficient urbanization of peasant workers. Millions of peasant workers are gathered mainly in low-tech, labor-intensive industries and low-level urban service industries. Generally speaking, China's industry as a whole, where a great number of Chinese rural surplus labor is gathered, is at the low end of the global value chain. It is this low-tech, labor-intensive industry that has caused the "three lows": low income of peasant workers, low profit of enterprises, and low revenue of the country.

Now we are glad to see that China has passed the "Lewis turning point" and has started to move from low-tech, labor-intensive industries into middle- and high-level industries. In 2013, the Communist Party of China proposed "the New Normal Economy" (*xinchanggui jingji*), according to which "the high speed economic growth is to be slowed down to medium speed while the low and middle level of economic structure is to be upgraded into the middle-upper level". We will see whether this development vision of "the New Normal Economy" will be achieved after 10–20 years. We are sure now that the phase of "the New Normal Economy" is the most crucial and difficult stage for developing countries to catch up with and surpass developed countries. If the developing countries fail, then they will be stuck in the "middle income trap". Various social problems will become prominent and pile up. With the implementation of the policy that "innovation drives, (let us) transform and develop" (*chuangxin qudong zhuanxing fazhan*), the Chinese economy seems to be upgrading from the low and middle industry to the middle-upper industry. In this process, with the support of the political will of the government to urbanize peasant workers, the three "lows" will be changed in order to make the enterprises, governments, and peasant workers able to afford the cost of people's urbanization.

As Chinese peasant workers are gradually urbanized, the Land Institution, especially the Agricultural Management Institution, will also be changed (or has already started to change). The current policy orientation is to ensure the usage rights of the contracted lands and to relatively and orderly concentrate lands into the appropriate scale. Small pieces of land are to be connected together for farming while various entities who manage the new type of agriculture are to be developed and established.

Appendix 1

A Brief History of the Land Institution of Modern China (After 1840)

Owing to population growth and the centralized land ownership, the land problem became more and more prominent a hundred years since the founding of the Qing Dynasty. The Taiping Rebellion that swept across China from 1851 to 1864 set land revolution at the center of their agenda. In 1853, the Taiping Heavenly Kingdom promulgated the "Heavenly Kingdom Land System" in Nanjing. It stated: "All the land over the world should be planted by people all over the world… The distribution of farmland will be according to the population, either men or women. The farmland a household can get depends on the whole population of the household. During the distribution, fertile lands will go with barren lands so that each household can get both. Our mission is to ensure that people under heaven will have a share in farmland, food and money. As a result, there will be no inequality and nobody will suffer from starvation or cold". Because the Taiping Heavenly Kingdom had been in a state of war and collapsed quickly, the egalitarian land system they promoted was not implemented. But the thought of allocating farmland equally influenced the Revolution of 1911 and the land reform carried out by the CCP thereafter.

In 1905, Sun Yat-sen founded the Chinese Revolutionary League (*Tong Meng Hui*) in Japan. The revolutionary guiding principle of the League was "to expel the Manchus (*Qing Dynasty*), restore China, equalize the landownership and found the Republic of China". But the League was separated into two groups in terms of how to interpret "equalization of land ownership". The proposal of the radical faction was similar to that of the Taiping Heavenly Kingdom (that is, to abolish landlordism and allocate land equally according to the population); however, the moderate faction suggested that the landlords' ownership be kept if they used the land for farming while nationalizing the "added value" generated by putting the land to non-farm usages, such as industrialization, urbanization, and infrastructure construction. Following American scholar Henry George's opinion presented in his book *Progress and Poverty*, Sun Yat-sen formed his proposal of "equalization of landownership". In 1911, the Qing Dynasty was toppled by revolution; the power, however, fell into the hands of Yuan Shikai and the Beiyang Government. Following in the

steps of "Heavenly Kingdom Land System", the Chinese Revolutionary League's proposal of "equalization of landownership" ended up a mere scrap of paper (Jian 2013).

In 1927, the first Kuo Ming Tang (KMT)-CCP cooperation broke down, and the CCP was forced to move to the countryside. They started a 10-year political struggle against the KMT. Between 1927 and 1937, on their "red bases", the CCP carried out "land revolution" which aimed to "beat down the landlords and divide the lands". It is interesting that the Marxist CCP fulfilled what had been pursued but not accomplished by the Taiping Heavenly Kingdom (peasants' rebellion) and Xinhai Revolution led by Sun Yat-sen (capitalist revolution). Between 1937 and 1945, the KMT and CCP had their second cooperation. The CCP decided to substitute a milder policy of "reduce the rent and lower the interest rate" for the radical "land reform" policy in order to unite enlightened landlords for the anti-Japanese cause. While the civil war between the KMT and CCP was taking place from 1947 to 1949, the latter restored the radical "land reform" policy in order to effectively mobilize the peasants to overturn the rule of the KMT.

In 1949, the CCP took power and founded the PRC. In 1950, they issued the first "Marriage Law" to "abolish feudal marriage" and advocate "gender equality, marriage freedom and monogamy". Following that, they promulgated the "Land Law" in order to "abolish feudal landlord land ownership" and realize the private ownership of land by petty peasant households. Interestingly, the objective and land allocation method of this reform were exactly the same as what the "Heavenly Kingdom Land System" had proposed a hundred years earlier, even though the expressions were different. What differentiated these two is that the Taiping Heavenly Kingdom was unable to implement the ideal of "cultivator has its field" but the CCP fulfilled it through "class struggle" which ended up mobilizing the peasants and forming them into an enormous political force. In 1950, there was a total of 1,600 million *mu* of arable land (1 acre = 6 *mu*); after the land reform, 700 million *mu* of farmland which used to belong to landlords and rich peasants was distributed for free to farmers who had no land or little land. At that time, among the total population of about 540 million in China, 88% were peasants. And of the 1,600 million *mu* of arable land, 86% was used to grow food. In 1952, after a long period of turmoil, for the first time, the total output of arable land in China caught up with the harvest of the best year before 1949, reaching 150 million tons. This land reform was the first land institution

transformation after the founding of the PRC, and it was accomplished at the cost of the "disappearance" of two classes: the landlords and the rich peasants.

Even though the equalitarian land allocation system met the peasants' desire for land, the household private ownership of land might again lead to the polarization between the rich and the poor. Furthermore, this land reform divided farmland into small plots, which made it difficult to carry out large-scale irrigation system construction. At the same time, also owing to the urgent demand of primitive accumulation for industrialization, the CCP started promoting the agricultural cooperation movement shortly after the land reform. The cooperative movement was divided into three stages: the first stage was called "the primary commune", meaning the land was privately owned by rural households but planted cooperatively by 20 to 30 households. The total agricultural output was distributed to these households according to a certain proportion of the labor that was used in cultivating the land, and the amount of land each household had, after deducting the agricultural taxes. The second stage was named "the advanced commune", which transferred the land ownership from private to collective. The distribution was based on the labor each household contributed. This was the second big land institution transformation after the founding of the PRC.

"The advanced commune" could include as its members several hundred households, much bigger than "the primary commune". After 1959, the development of the Commune System entered the third stage (that is, the "people's commune"). The land institution during this stage was "based on the production team, and shared by three levels of organizations" (that is, the people's commune, production brigade [*shengchan dadui*] and production team [*shengcha xiaodui*, natural village]). In terms of size, a production team was almost equivalent to a "primary commune", and a production brigade was as big as an "advanced commune". A "people's commune" often consisted of over 10 production brigades, and a production brigade included about seven to eight production teams. But this varied from region to region. This was the third big land system change after 1949. It was through the "people's commune" system that the Chinese state accomplished the task of extracting agricultural surplus for industrialization. Furthermore, the "people's commune" system made it possible to organize the agricultural labor force to engage in large-scale irrigation system construction during the slack seasons. Also through the division of labor and cooperation within the "people's commune", China actualized nine-year compulsory

education and a low-level cooperative medical system. But long-term high levels of extraction from agriculture made it a big challenge to increase the living standards of millions of Chinese peasants, which had greatly affected the enthusiasm of peasants for collective production.

From 1982 to 1983, the people's commune of more than 20 years' history was abolished in Chinese villages. Afterwards, the township, where the "government-administrative" function of the people's commune was handed over to the governments of towns and counties, was established. (In 1984, there were 82,000 county governments and more than 7200 town governments all over the country. In 2012, after years of a combination of local governments,[3] there were 13,000 county governments and 20,000 town governments.) Then the production brigades of people's communes were transformed into village committees, which are legally called "village self-governing organizations". Elections are held every three years to form village committees. In addition, the production teams of people's communes were turned into villagers' groups, which are subjected to village committees. After the abolition of the people's commune, a great change took place regarding the Land Institution. The village collective land ownership was separated from the usage right of the household contracted land. This change encouraged peasants to cultivate land more actively. However, the previously vast piece of land in the age of collective cultivation was thus fragmented into small pieces according to the principle of "land distribution based on family population, balancing barren and fertile lands in distribution, and household management of production". The high fragmentation of lands had a negative impact on irrigation construction. From 1982, the "household contracted responsibility system" was put into practice. It was promised that the household contracted responsibility system would continuously be valid for 15 years. In 1998, a new round of the "household contracted responsibility system" was carried out. Thirty years was added to the validation period. To prolong the length of the policy is to reassure the peasants that the government wants to encourage them to cultivate land and that the government is not expected to expropriate land. Furthermore, the prolonged time corresponds to the growth cycle of fruit trees, such as peach, plum, and apple trees.

With the development of China's industrialization and urbanization, a great amount of rural young labor force left agriculture and the countryside. They have gone to the east-coast cities to work for a living. According to the official statistics of 2014, the total number of Chinese peasant workers is 269 million, of whom 80 million are trans-provincial peasant workers. Thus, the Land Institution and Agricultural Management

Institution experienced a second change. After the village collective land ownership was separated from the usage right of the household contracted land, the cultivation/management right was further separated from the usage right of the household contracted land. China's Land Institution has gone from "the separation of two rights" to "the separation of three rights". The principle of separating the cultivation/management right from the contracted usage right is twofold: "conform to the willingness of peasants" and "payment is required for leasing the contracted land".

According to the official statistics of 2014, one third of all the 1820 million *mu* plowable land of China has been leased. There are two types of leasing. First, peasants lease their lands to relatives. Second, village committees "organize" peasants to lease lands. Peasants lease lands to the village committees first, and then the village committees lease all of the lands to other people. The village committees thus act as brokers. The advantage of the second type of leasing is that the fragmented lands of the household contracted system can be gathered and leased together on a large scale. It answers the requirement of "managing the land in appropriate scale". Moreover, land on a large scale makes irrigation construction easier. Machines also favour large pieces of land, and as a result, the agricultural productivity will be improved. The shortcoming of the second type of leasing is that enforced leasing by the government may exist. The enforced leasing would harm the benefits of the contracted peasants. Who are the new lessees then? There are four types of renting. First, the lessees rent the land and make it into family farmland. Second, peasants can organize themselves into cooperatives and rent land together. Third, influential and rich households can rent land from other villagers. Fourth, big companies come into the villages and rent land from the local peasants and then hire the peasants to cultivate the land for them. In order to achieve the goal of modernizing Chinese agriculture, the question remains unanswered as to how to keep a balance between "highly distributed family contracted land rights" and "appropriately concentrated land management rights".

Notes

1. Six *mu* is an acre.
2. The first two types are divided into four grades. For detailed policies, see http://www.gov.cn/zhuanti/xxczh/, accessed on April 10, 2015.
3. It means that some local governments were sometimes combined into one.

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CHAPTER 5

"Politics of Scale": The Shift from Small Migrant Farmers to Big Organizational Agriculture in Shanghai's Suburbs

Ye Min

Introduction

After a new round of land reforms which took place in 1982, China's agriculture became famous for its collective ownership with equal distribution of land rights to the individual households which was widely known as the "household contract responsibility system". As a result of these regions, China's agricultural system was made up of numerous small family farmers. But with the process of industrialization and urbanization, it seems that China now is witnessing a considerable growth of large-scale farms or organized agriculture. By the end of 2008, there were 81.5 thousand agricultural companies, and by the end of 2010, there were 379 thousand legal cooperatives in China. Taking Shanghai as an example, by the end of 2011, the percentage of farming land used by agricultural companies and cooperatives, which could be called organized agriculture, increased to 65%.[1]

Y. Min (✉)
School of Humanities, East China University of Science and Technology, Shanghai, China

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The boom in organized agriculture has attracted considerable attention of Chinese scholars toward the study of the advantages of organizational agriculture, such as market connection (Zhang 1999; Huang and Xu 2003), transaction cost reduction (Xu 2005; Tong and Wen 2009), or the potential to enhance agriculture productivity. Actually, these elements are all part of the process, but these studies did not pay much attention to government motivations into consideration and thus ignored the important role of the government in the process. This neglect could be serious because governments in China hold a large amount of autonomous power in society (Skocpol 1979; He 2008; Xiong 2010).

This article will argue that, in the spread of organized agriculture, the government is not a neutral factor; on the contrary, the government is playing an important role by promoting this system. The evidence, as will be detailed later, shows that local governments in Shanghai are trying to drive small migrant family farmers away by promoting organized agriculture. It seems that local governments not only consider "economies of scale" but also consider the good returns from organized agriculture in a local governance context.

The Arrival of Small Family Migrant Farmers in Shanghai's Suburbs

If one looks around closely at the suburban areas of Shanghai, one can see lots of plastic greenhouses which are used to grow vegetables. Most of these small vegetable farms are run by migrant farmers from other provinces. According to the vegetable growers' association of Shanghai, in 2009, there were 90,000 migrant farmers growing vegetables in Shanghai.[2] Besides the small migrant farmers who grow vegetables, there are thousands of small migrant farmers who grow other farm produce, such as grain and grapes, meaning that there are far more small agricultural producers than mere vegetable growers.

The first fundamental reason for the arrival of small family migrant farmers has been the rapid urbanization in Shanghai's suburbs, resulting in local farmers gradually withdrawing from agricultural jobs to non-agricultural jobs. In Fig. 5.1, we can see the percentage of the farming people in the total residential population and the percentage of local farming people in total people who have local "Hukou" both have decreased very quickly, and by the end of 2010 the respective shares of

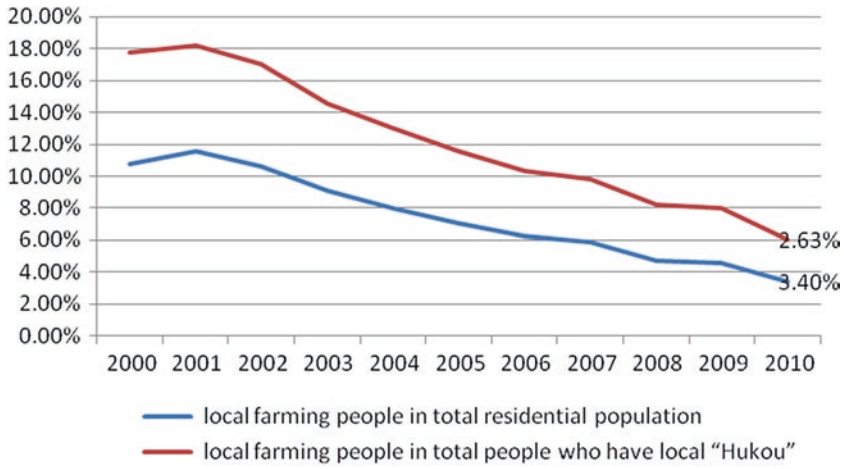

Fig. 5.1 Percentage share of local farmers in agriculture in Shanghai (2000–2010) Source: Shanghai statistical yearbook (2001–2011)

these groups decreased to only 3.4% and 2.63%. This decrease of local farming population is due not only to more thorough industrialization, such as the increase of township enterprises, but also to the expanding power of the city which gradually extended to the suburbs.

The second reason is due to market power. Shanghai has gradually grown to be a huge metropolis, whose residential population increased from 16.08 million in 2000 to 24.15 million by 2013. With this huge population growth, Shanghai demands a great amount of farm products, especially vegetables and fruit. The shift of local farmers to non-agriculture and the fast-growing urban demand for vegetables left a huge supply gap which attracted large numbers of small migrant farmers to urban suburbs to cultivate vegetables to meet the demand. When we were doing the fieldwork, a migrant farmer told us, "One Chinese acre (*mu*) vegetable garden in Shanghai is better than ten Chinese acres (*mu*) which grow grain in my hometown"[3] (Fig. 5.2).

The third reason for the migration is due to something called regional time lag in the process of the decrease in the farming population. More than half of the small family migrant farmers in question come from the Anhui province because there is a time lag in urbanization between Shanghai and Anhui. As Table 5.1 reveals, in 2009, the percentage of

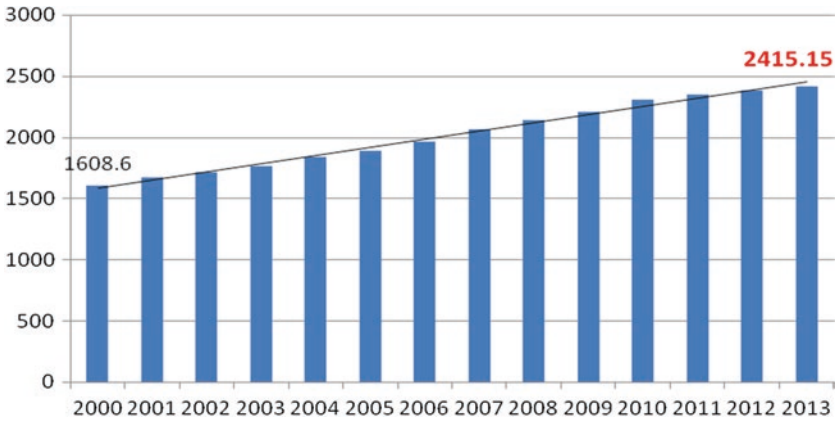

Fig. 5.2 Growth of resident population in Shanghai (in tens of thousands)

Table 5.1 Change in the share of farming population in Anhui and Shanghai (2000–2009)

	Anhui		*Shanghai*	
	Farming population (tens of thousands)	*Percentage*	*Farming population (tens of thousands)*	*Percentage*
2000	2018.9	58.50%	89.23	10.77%
2005	1783.3	48.60%	61.02	7.07%
2008	1592.8	40.70%	49.38	4.69%
2009	1566.1	39.30%	48.53	4.56%

Source: Statistical yearbooks of Anhui and Shanghai

farming population in Shanghai decreased to 4.56% while that of Anhui's was still at 39.3%. This means that agricultural labor was quite adequate in Anhui but was in short supply in Shanghai.

The Current Conditions of the Small Family Migrant Farmers

According to our fieldwork of vegetable farmers, during 2011–2012, three characteristics of small family migrant farmers were identified: first they were family unit–based in operation, which means the farms are usually cultivated by a couple; second, the land they cultivated was small,

Table 5.2 Age distribution of small migrant farmers in Z village

Groups	*20–29 years*	*30–39 years*	*40–49 years*	*50–59 years*	*60–69 years*	*70–79 years*
Number	19	54	145	45	6	1
Percentage	7.0%	20%	53.7%	16.7%	2.2%	0.4%
Average	43.5 years old					

Source: Fieldwork

because vegetables are labor-intensive in production; third, they also come from different provinces.

Table 5.2 shows data from Z village in a Shanghai suburb, where the average age of small family migrant farmers was 43.5 years old. Most of the farmers were in the age group of 30–59 years, but there were some younger farmers, although the percentage was only about 7.0%.

Based on the sample of F district in Shanghai, Table 5.3 shows that the migrant farmers come from different provinces. Anhui accounts for the largest percentage (57.8%) because Anhui is a neighboring province and also an underdeveloped area. As to the information we had collected in N county of F district, by the end of 2011, there were 3765 farmers and among them farmers who came from Anhui accounted for 67.4% of the total. As we found in interviews with the migrant farmers themselves, they are usually introduced to Shanghai by their relatives or colleagues; these people constituted the main social network for these migrant farmers.

In terms of the income of the small migrant farmers, generally speaking the situation is diverse and dependent on market elements. It is interesting that these small migrant farmers calculate their income for the year, and they consider only net income, which means that they care about only how much money they can save in a year. The results show considerable variation among families. A small migrant farmer interviewed in 2011 reported that he and his wife could save 70,000 Renminbi a year; the precondition to obtain this income, however, required them to work extremely hard every day.

Small Family Migrant Farmers: Troublemakers to Local Government?

Fundamentally, Shanghai benefits a lot from small family migrant farmers because migrant farmers not only serve to fill a complementary role in the labor market but also push up farm land rental prices which absolutely

Table 5.3 The geographical distribution of small migrant farmers in F district of Shanghai

Province	*Total*	*From other districts in Shanghai*	*Zhejiang*	*Jiangsu*	*Anhui*	*Henan*	*Jiangxi*	*Sichuan*	*Shandong*	*Fujian*
Family	5942	110	985	369	3497	243	77	220	195	224
Percentage		1.8%	16.3%	6.1%	57.8%	4.0%	1.3%	3.6%	3.2%	3.7%

Source: Fieldwork

increase local farmers' income. However, it seems that local governments and local officers in Shanghai do not have the same point of view. Usually, the local governments look upon small migrant farmers as troublemakers. They do not welcome these small family migrant farmers. Interacting with many local officers in the fieldwork showed that the attitudes and policies of local governments were adverse to these small migrant farmers. There findings show that there are three main reasons for the local governments' and local officers' reluctance to accept these migrant farmers.

Firstly, it is evident that the arrival of small family migrants will result in the loss of control of land use from local governments, causing problems in governance. When migrant farmers contract land from local farmers by providing considerably high rental prices, it is not easy for local governments and farms to concentrate on small areas of land and develop them into large-scale modern agriculture. Another problem is the contradiction between the two big goals: one is "food security" and the other is "vegetable security". When lands were taken by migrant farmers who grow vegetables, the remaining lands for growing grain will decrease. Although Shanghai is a metropolitan city in China, the central government still commands the city to maintain a minimum grain output; the number was 1,000,000 tons in 2011. The third problem is predatory operation of land because migrant farmers need to harvest as much as they can from contracted land and this could cause overuse of land and a degradation in the quality of soil.

The second factor is related to local governance. The small production of migrant farms causes big local governance issues, such as food security supervision, damage to the environment, illegal buildings, loss of public security, problems relating to family planning policy implementation, and public service pressure. Among them, illegal building is the most problematic concern for local governments because the illegal shacks around land not only occupy land but also worsen the image of the city. Food security supervision is also a problem which needs local governments to invest a lot of resources to address the issue. What's more, to local governments and local officers, there is a great dilemma before them. On the one hand, it seems that they are failing in their duty to supervise the microscopic behaviors of numerous small family migrant farmers because of difficulties in communication with the migrant farmers due to gaps in culture such as language, customs, and concepts. On the other hand, the local governments and local officers are also responsible for the governance of

migrant farmers during provision of basic services and exercising regulations. For instance, if the migrant farmers bear illegal children, local officers will be punished by the higher government.

The third aspect is a community integration problem. When migrant farmers are a minority in villages, local people usually bully them. But along with the urbanization of local people, migrant farmers have become a strong force in the villages. Because these migrant farmers arrive collectively with relatives and colleagues, the ability for collective action sometimes is strong. There are instances when a local farmer was beaten by migrant farmers because the local farmer insulted a number of migrant farmers so they decided to teach the local man a lesson. In some villages, it seems that migrant farmers are more powerful than local people because they have advantages in numbers, age, and collective ability. To some extent, local farmers and migrant farmers overlap in same villages, but there is a long road to integrate these two social groups into one community.

Expelling and Transformation: Policy Instruments to Discipline the Small Migrant Farmers

The attitude of local farmers toward the migrant farmers is quite contradictory. On the one hand, the local farmers like the higher land rent provided by the migrant farmers and they are bound together economically, but on the other hand, some of the local farmers dislike the migrant farmers' behavior. Compared with local farmers, the local government has a more unwelcoming attitude to the small migrant farmers. With problems becoming worse and more frequent, the local government in Shanghai gradually exerted a hostile policy to small migrant farmers and, to deal with them, adopted two main policy instruments, namely expelling and transformation.

Around 2009, some district-level governments in Shanghai, like Songjiang, tried to drive small migrant farmers out of the area, and the key step to this expulsion policy was to get the land back from the small migrant farmers by providing more money to local farmers. In the Chinese land institution system, the land belongs to village collective units, and the contract right of land belongs to local farmers and is provided in equal measure. But when local farmers rent the land to small migrant farmers, there is another land right called franchising; that is, the main hand of local government to expel small migrant farmers was to cut off land provision. As we have seen in the Songjiang district, the local government provided an

attractive opportunity to local farmers to move land back to the village collective unit and receive more money from the local government. Because, with the rapid growth of the economy, the financial capacity of the Songjiang government is quite strong, the local government has the ability to "buy" the land back and take control of it; this also means that the small migrant farmers cannot rent any land from local farmers in the district. As in the years before 2012, although policy was getting less and less friendly, the small migrant farmers still had ways to live in Shanghai; when they cannot rent land in this district, they rented land in the other districts. Not all local governments have a strong financial capacity like Songjiang, so in some underdeveloped districts like Fengxian in Shanghai, the local government cannot provide enough money to get the rented land back. What is more, when the developed districts exert an expulsion policy, the number of the small migrant farmers will grow very quickly in these underdeveloped districts. Figure 5.3 shows that, between 2002 and 2011, the number of small migrant farmers grew faster in the underdeveloped N town of Fengxian. This rapid growth can be attributed to the neighboring districts' expulsion policy toward the small migrant farmers.

After 2009, expulsion policies aimed at small migrant farmers became a unified policy in Shanghai, although not every district implemented the policy to the same extent. Partly inspired by the experience of the Songjia district and partly encouraged by the national policy to develop large-scale agriculture, Shanghai carried out a new expulsion policy which also focused on the land control mechanism. In 2009, Shanghai determined to build a formal and government-controlled land rent market to shut down the

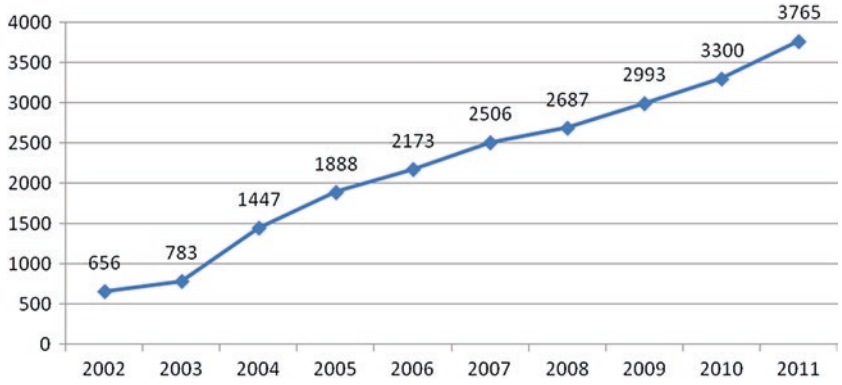

Fig. 5.3 The growth of small migrant farmers in N town of Fengxian

informal land renting between local farmers and the small migrant farmers. To allow the policy to work well, local government commanded village leaders to persuade local farmers to rent their land in formal ways. One choice for the local farmers was to rent land to the village collective unit, and the latter would rent the land out secondhand. The other choice for local farmers was to rent their land through a formal land exchange platform, which means that local farmers do not need to rent land to the village collective unit as a prerequisite condition, and they could rent their land to others in government-controlled platforms directly. As we have seen in some districts in Shanghai, the work to implement the policy is not easy, because not all local governments have enough money to compete with the high rent price provided by the small migrant farmers. Realistically, the small migrant farmers will form an alliance with local farmers to resist the new land control policy. So the policy results were diverse in Shanghai, not only depending on the fiscal ability of local governments but also heavily influenced by the determination of local officers.

In 2013, Shanghai started another wave to drive the small migrant farmers away; this time, the consideration of the governments was mainly population control. Regarding the quick growth of Shanghai's population, not only local governments in Shanghai believe the population should be controlled, but also the central government of China holds the same idea. In order to control the population, Shanghai wants to drive out some migrant workers who make a living in the informal economy, and the small migrant farmers fall exactly within the targeted groups. At this time, a more powerful policy instrument was carried out: to stop the children of the small migrant farmers from receiving education in public schools in Shanghai. The Shanghai government had set up a threshold for migrants to get public education services, which said only the children from the "legal-working" families had the right to receive education services in public schools, and the children from the informal-working families like the small migrant farmers were denied the opportunity to get an education from the public schools in Shanghai. As to the information we know, this policy measure is extremely powerful in expelling the small migrant farmers from Shanghai because Chinese people put a great deal of importance on their children's education (Table 5.4).

With several waves of small migrant farmers being expelled, more and more land in Shanghai's suburbs was taken under government control. Usually, when the land had been taken under government control, the land would be leased to develop large-scale agriculture, and the cultivation of the land would change a lot. At first, land would be cultivated on a large

Table 5.4 The expulsion policy to drive the small migrant farmers out of Shanghai

Time	*Area*	*Policy instruments*	*Policy outcome*
2007–2009	Some suburb district	Get the land back from the small migrant farmers by providing more money to the local farmers.	Small migrant farmers try to find land in other underdeveloped suburb districts.
2009–2012	Whole suburb	Build a formal and government-controlled land rent market to shut down the informal land renting between local farmers and the small migrant farmers.	Diversity of policy implementation; The small migrant farmers and local farmers boycott the policy.
2013-	Whole city	A package of population control policies, such as stopping the children of the small migrant farmers from receiving public education in local schools.	Many of the small migrant farmers have to leave.

scale by different types of farming ventures such as Agriculture Company, Big Farms, or Cooperative. Second, more land would be allocated to grow rice instead of vegetables because growing rice is not as labor-intensive as vegetables and fruits, and this could keep the land attractive in and aesthetic condition. Third, the local people would be given priority to cultivate land. But there is a contradiction concerning the Shanghai government policy since the land needs labor to cultivate and the city needs vegetables which require labor-intensive production. It seems that the local governments are not worried about the labor shortage, because they have an optimistic strategy to deal with this. A local officer confirmed that Shanghai needed the migrant labor in agriculture but that the existing form of the labor should not be the small family-unit tenant farmers but agricultural wage workers. In the fieldwork, one could already notice this kind of migrant labor in Shanghai's suburbs, and the transformation process is likely to be reinforced in future years.

The "Politics of Scale" of Organizational Agriculture?

To summarize the story of small migrant farmers in Shanghai, the basic logic is the following: the arrival of small migrant farmers in Shanghai's suburbs is motivated by market power, which means that the small migrant farmers can get more income in Shanghai by growing commercial products.

But the local governments in Shanghai do not welcome these small migrant farmers, mostly because they cause a lot of negative impacts on local governance, such as their illegal buildings beside land which ruin the city's image and public security, and the decentralized agricultural production is seen as generating big trouble for local government in maintaining food safety. Furthermore, the growth of population and subsequent increase of pressure on public services are seen as problems of urban governance. And small agriculture impedes the development of large-scale modernized agriculture, which is the goal of the state. As to these negative impacts on local governance, local governments in Shanghai exert several measures of expulsion policy to drive the small migrant farmers out of the area. The key policy thinking is to change the small family agriculture into big organizational agriculture; this means not only that the land cultivated by the small migrant farmers will be brought back under government control but also that the form of migrant agriculture labor will change from small tenant farmers to agricultural wage workers.

What this case study reveals is that the main reason for local governments in Shanghai tend to develop big organized is not to do with the consideration of "economies of scale", but mainly because of the considerations of local governance, which could be described as "politics of scale". To our knowledge, large-scale organizational agriculture cannot get higher yields than small family agriculture in grain cultivation, let alone labor- intensive crops like vegetables. However, promoting large-scale organized agriculture will result in a lot of "politics of scale" in local governance because of the reduction in the transaction costs between government and agriculture units. From the perspective of transaction cost politics (North 1990; Ma 2003), agriculture is related not only to the economic transactions between supply and demand but also to the political transactions between government and cultivators. When the land is cultivated in decentralized small family agricultural units, the state needs to interact with a large number of cultivators, which means that a higher cost needs to be paid for services and regulation to maintain the quality of agricultural products. Conversely, in large-scale organized agriculture, the transaction costs between government and agriculture units will be reduced. In China, with the "Agricultural Cooperative Movement" in the 1950s, Chairman Mao had already recognized the advantages of agricultural cooperatives in comparison with private small family agriculture. State-issued commands and goals will be easier to realize in cooperative agriculture. Now, many Chinese scholars like Wen Tiejun believe that the

"Agricultural Cooperative Movement" has a function to reduce transaction costs between the state and 400 million farmers in China (Wen 2009: 174–175). In terms of food safety consideration, Li Changping also points out the possible method to cut down the number of small farmers and develop more big organized farms (Li 2009: 245).

The arguments in favor of "politics of scale" of organized agriculture could be summed up in several ways. First, organized agriculture means that administration will be centralized. When numerous small migrant farmer units are converted into large-scale organized farming units, local government will save a lot of time and effort. Second, the organized farmers not only are production units but also to some extent are managerial units, which means that they play a role in self-autonomy and assist the government in agricultural administration. Third, organizational agriculture means that the relationship between government and farmers will be firmly controlled by the government side, which will help the government to achieve public goals.

Conclusion

Shanghai has a lot of reasons to drive small migrant farmers out, and, to some extent, it is reasonable for the local governments to do this. However, it may be worthwhile to point out that agriculture is not an industry that can operate under centralized production. As Han Jun (2012) says, "the character of agriculture is spatial dispersion, and the cultivator needs to respond very sensitively to the natural condition. These two elements mean that the monitoring cost of agricultural production is very high. When land is cultivated by small family farmers, the family function can work to absorb the cost because the monitoring and measurement of agricultural labor are not needed in family-unit production".

Notes

1. 《上海农业组织化发展报告，上海农委政务网，http://e-nw.shac.gov.cn/zfxxgk/zhuanti/fzbaogao/2011/201204/t20120411_1315965.htm，2012年4月15日访问.
2. 上海蔬菜行业发展调研》，上海市蔬菜行业协会，http://www.snhx.org.cn/shucai/hyjb/200910/P020091022374426423397.doc，2012年4月12日访问.
3. 1 acre is equal to 6 Chinese acres (*mu*).

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CHAPTER 6

Craft Clusters and Work in Rural India: An Exploration

Keshab Das

Introduction

In post-Independence India, efforts at and ideas about effecting rural transformation through agrarian change unfortunately have been devoid of the critical elements of pragmatism and pursuance. That a highly skewed distribution of land and spatio-selective technological intervention would continue to plague expectations over remarkable contributions from the agricultural sector remained a reality that one learned to live with. Over six decades of development planning, including a quarter century of economic reforms, have certainly performed dismally in promoting rural infrastructure, which constitutes the very basis of activating the rural economy (Das 2001). Despite numerous thoughtful studies and government schemes at both the central and state levels, widespread poverty and unemployment in rural India establish the persistent neglect meted out to the rural transformation project, if there was one. According to the latest report of the Planning Commission (Government of India 2014: 66), the poverty ratio for rural India (for the year 2011–12) was 30.9%, and the ratios for the sample states in this study were 21.4% for Rajasthan and 42.0% for Assam.

K. Das (✉)
Gujarat Institute of Development Research, Ahmedabad, India

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Whereas and whenever the farm sector could engage its population, mostly for about four months in a year, very few options were left to the villagers in terms of earning their livelihood for the rest of the months. The predicament of unemployment is particularly acute as not only are a staggering three fourths of landholdings still with small and marginal farmers but the number of agricultural laborers has also risen considerably, from about 27.3 million in 1951 to 144.3 million in 2011; the proportion of agricultural laborers rose from about 19.5% to 30% during the same period. In fact, during the last census decade alone, while the cultivators have declined by about 9 million, there has been an increase of about 38 million in the number of agricultural laborers. An important consequence of this has been the large-scale migration (both seasonal and permanent) to urban industrial centers, which often has landed the desperate unskilled and illiterate/poorly educated young workers in strenuous, unsafe, and long-hour jobs. Even when their labor was grossly under-valued and jobs remained precarious and "unprotected", urban industrial belts have been receiving millions of migrant workers from rural areas where both the farm and non-farm sectors are incapable of generating adequate and sustainable income and employment opportunities.

Nature of Rural Non-farm Employment

There have been important changes in the structure of rural employment during the recent decades. As may be surmised from Table 6.1, during the past three decades or so (1983–2012), the two sectors that have witnessed

Table 6.1 Structure of rural employment in India, 1983 to 2011–12

(percentages)

Sector/Industry	*1983*	*1993–94*	*2004–05*	*2011–12*
Agriculture and allied activities	81.5	78.4	72.7	64.1
Mining and quarrying	0.5	0.6	0.5	0.5
Manufacturing	6.8	7.0	8.1	8.7
Electricity, gas, and water supply	0.2	0.2	0.2	0.2
Construction	1.7	2.3	4.9	11.1
Trade, hotels, and restaurants	3.5	4.3	6.2	6.8
Transport, storage, and communication	1.1	1.4	2.5	2.9
Other services	4.9	5.7	5.1	5.7
Total	100.0	100.0	100.0	100.0

Source: Reddy et al. (2014: 12)

Table 6.2 Distribution of incremental workers by sub-sector in rural India, 1983–2010

Sectors	*Increase in workers per year (in lakh)*	
	1983 to 1993–94	*1993–94 to 2009–10*
Agriculture and allied activities	26.33	0.01 (0.05)
Mining and quarrying	0.49	−0.95 (−3.56)
Manufacturing	3.46	2.40 (8.96)
Electricity, gas, and water supply	0.22	−0.31 (−1.14)
Construction	2.74	15.50 (57.88)
Trade (wholesale and retail)	3.26	4.88 (18.23)
Hotels and restaurants	0.45	0.81 (3.04)
Transport, storage, and communications	1.42	3.47 (12.96)
Other services	4.37	0.96 (3.60)
Non-agricultural activities	16.43	26.76 (99.95)
All sectors	42.75	26.77 (100.00)

Source: Bhaumik (2013: 361)
Note: Figures in brackets are percentage shares in incremental workers (UPSS basis)

clear signs of rise in shares of rural employment are "Construction" and "Trade, hotels, and restaurants", with the former showing an impressive rise (from 1.7% to 11.7%). Interestingly, the share of employment in manufacturing (which would account for much of what is described as "rural industries", including rural clusters) as an important source of employment has risen rather slowly, from 6.8% in 1983 to 8.7% in 2011–12. Even as the sectoral growth rates of rural employment from the non-farm sector as a whole have been on the rise (from 3.23% during 1983 to 1993–94 to 3.64% during 1993–94 to 2004–05 to 4.03% during 1999–2000 to 2009–10), that of manufacturing has, in fact, risen somewhat between the first two periods (2.02% to 2.74%) but slipped to a low of a mere 0.62% during 1999–2000 to 2009–10 (Reddy et al. 2014: 11).

In a comparison of *incremental* employment by the non-farm sector in rural India as between pre- and post-reform periods, it was again established that manufacturing (with 8.96%) was *not* the sector where notable growth occurred (Bhaumik 2013: 360–361); in fact, the sectors which absorbed new entrants in the labor market were construction (57.88%), trade (18.23%), and transport, storage, and communications (12.96%) (Table 6.2). As a further corroboration of the receding significance of manufacturing within rural non-farm activities as far as employment is

Table 6.3 Rural non-agriculture and manufacturing employment in sample states, 1983–2012

(percentages)

State	*Employment in non-agriculture sector*			
	1983	*1993–94*	*2004–05*	*2011–12*
Assam	20.7 (4.4)	21.1 (5.5)	25.7 (3.1)	38.0 (5.5)
Rajasthan	13.3 (4.3)	20.2 (4.6)	27.1 (5.8)	39.2 (5.2)

Source: Table A13.5 (State-wise Sectoral Distribution of Usual (Principal + Subsidiary) Status Workers) in Dev (2015: 469–470)
Note: Figures in parentheses are employment shares of "Manufacturing" within the non-agriculture sector

concerned, Table 6.3 provides relevant data by sample states. It is useful to note that, across states and over the four time points during the three decades (1983 to 2011–12), the share of manufacturing within non-farm employment not only has remained low (varying between 5% and 10% in 2011–12, for instance) but also has often declined during the period referred to. The issue of concern relates to the weakening status of rural industries in acting as potential sources of employment in rural India.

Beyond the numerical dimensions of rural non-farm employment, several scholars have been perturbed by the fall in quality of employment. In fact, within rural non-farm employment, one observes a steady rise in casual employment as in 1983 (23.1%), 1993–94 (25.2%), 2004–05 (26.6%), and 2009–10 (36.6%). An important fallout of rising casual employment relates to the precarious of work and low remuneration across sectors. As observed by Reddy (2002: 62), "casualisation often cohabits occupational multiplicity, circulating labor, feminisation, child labor, contract labor and boded labor".

Although a large proportion of rural employment is still connected to the farm sector, the gradual changes in the peri-urban areas and deepening of linkages and dependence between the rural and urban areas have implied that the rural non-farm employment has also been responding to newer opportunities of higher remuneration, flexible work contracts, and scope to upgrade labor productivity. However, such a transformation in the quality of rural non-farm employment has been constrained by the fact of low levels of education and formal skills of rural laborers who eventually are engaged in low-end, low-productivity jobs in urban industries (for instance, hardly having access to any social security provisions or even

stability of employment). The number of these "informal"/"unorganized" workers has been on the rise in the so-called "formal"/"organized" industries; for instance, contract workers in the organized sector rose from 24.3% in 2004–05 to 31.7% in 2010–11, establishing informalization intensifying in the organized manufacturing sector (Uchikawa 2014: 11).

Moreover, an important aspect of the emerging structure of rural employment has been the growing marginalization of female workers, whose withdrawal from the wage work space has been pronounce during the recent decade or so (Kannan and Raveendran 2012). It has been observed that having dropped out of the labor force, rural women engage in low-paid informal work (Hirway 2012).

Deindustrialization: Crafts and Artisans During the Colonial Period

As has been widely documented, with large-scale deindustrialization during the colonial period, the artisans and their production suffered, often irreparably. Almost 150 years of colonial rule since the early nineteenth century, starting with the rise of the stranglehold of the trade capital of the East India Company, witnessed the decline and collapse of much of the craft sector as it gave in to the destruction of market opportunities, including opportunities abroad for Indian craft products, "fierce and unequal" competition of imports of machine-made goods, and the spatial spread of modern industrialization using railways during the period. The debate over characterizing India's deindustrialization (the original proponents of the thesis being nationalist-intellectuals such as Dadabhai Naoroji, M.G. Ranade, Romesh Chunder Dutt, and Rajani Palme Dutt) during the colonial period has had bitter opponents. While several distinguished economic and social historians (notably Amiya Kumar Bagchi, Bipan Chandra, and Tapan Roychaudhuri) unequivocally held the anti-India repressive commercial policies of the colonial rule responsible for the massive crisis in the indigenous manufacturing sector that resulted in an unprecedented drop in the number of workers engaged in craft and other non-farm activities, a few (particularly Morris D. Morris, Daniel Thorner, and Tirthankar Roy) held to the view that this was not the case. Nevertheless, "most scholars agree that the impact of machine-made manufactured goods was harmful for India's weavers and other craftsmen for most of the 19th century…Hence, de-industrialization did occur but not in an unqualified, linear and uninterrupted manner".

An important concern was the sharp decline in the number of workers in the traditional non-farm activities at the expense of the non-factory sector between 1901 and 1951. Particularly, in rural areas, "the decline in employment in handicrafts may have been larger" (Krishnamurty 1984: 540). A crucial aspect that has received rather scant attention in the deindustrialization discourse relates to the fact that in several activities there was a substantial drop in female workers which spelt disaster for these rural enterprises which depended heavily on their skill and work. As painstakingly evidenced and argued by Roy (2005; Chaps. 7 and 8, in particular), with wage work gaining currency, "a steady and pronounced de-feminization of the industrial workforce" of the artisan sector was effected through the double whammy of "barriers to entry into the factory as well as barriers to exit from home to join work-sites far away from home" (Roy 2005: 116). Very briefly, women workers were disadvantaged by low investment (compared with their male counterparts) in their skill formation; severely restricted mobility (again compared with men) socially as well as with reference to possession of skill, capital, and technology; and a certain "gender-independence" in the labor process that was organized differently in factories by *disintegrating* female work.

It has been argued that, despite the upstaging of indigenously manufactured goods by machine-made products, the demand for traditional goods existed and this helped the craft sector survive through the difficult colonial period. Furthermore, in this process of adjustment to the impending crisis in the craft sector, quite a few craft activities and craftspersons shifted over to urban areas and managed to sustain their business. That the state played little or no role in protecting the interests of craftspersons is not unknown.

Crafts as Work and Enterprise: Falling Out of Favor

The rise of the non-farm sector in rural India, in terms of income and employment shares, has been observed at least since the early 1980s. This increase, however, has *not* been due to any commensurate performance of the rural industries that largely include the traditional or craft sector.

An important change in the structure of rural employment has been a clear decline in the share of agricultural activities. As shown in Table 6.1, the proportion had declined from 81.5% in 1983 to 78.4% a decade later in 1993–94 and a much sharper decline is visible between 1993–94 and 2011–12 to 64.1%. That agriculture has been failing to support employment in rural India is marked not only by the growing fragmentation of land holdings but by increasing farm mechanization that displaces labor. Furthermore,

barring a few regions, low investment in farm infrastructure and advanced agronomic practices has stymied possibilities of strong farm–non-farm linkages (and transformation) somewhat in line with what Mellor (1976) had envisioned. Rural industries, by implication, have been neither strengthened by the farming sector as a raw material provider nor buoyed by the farming community as a buyer of their goods.

The low income from agriculture is established by the fact that as many as 68.57 million households (or 38.27%) are "landless" and depend on manual casual labor as the main source of income. Moreover, as between the two agricultural census rounds held in 1970–71 and 2010–11, there has been a substantial rise in the marginal (less than 1 hectare) and small (between 1–2 hectares) landholdings, from around 21% in 1970–71 to a staggering 85.01% of total landholdings. These smaller landholdings account for 44.58% of the total operational area in the country. "Moreover, with a rather difficult target of an annual growth rate of agricultural income to reaching anywhere close to 4% during 2013–14, marginal and small farmers have little to expect from the farm sector to contribute towards boosting the non-farm sector" (Das 2015: 133).

Apart from the incapacity of the farm sector to play a complementary role in terms of investments of farm surplus into rural industries, there have been serious deterrents to enterprise dynamism and growth. A brief discussion on these constraints is in order to appreciate the crisis that has besieged the craft clusters in rural India.

Raw Material Availability and Quality

The craft clusters are typically based on working on natural resources available in the proximity or the key raw material made available easily at a low cost or both. As far as the natural resource–based raw materials are concerned, the most common ones would be wood, timber, leaves, cotton, bamboo, reeds, husk, shell, gums, lac, clay, stones (including precious), rocks, metals, glass, bones, skin and hides, horns, hair, wool, and so on. It is important to appreciate that several of these raw materials are derived from forests—trees and animals, to be specific. With the forest coverage on the decline and legal restrictions on collecting even minor forest produce becoming commonplace, several of the craft enterprises are finding it difficult to be in business, despite having the requisite skill, techniques, and implements/tools. The case is similar with other materials extracted/mined from the earth's surface. The rapid pace of urbanization and real estate growth have put pressure on certain craft clusters which procured

the raw material—clay, sand, stones, and so on—from the land often free of cost. Additionally, there have been concerns by the artisans regarding the falling quality of several of the raw materials or cheap availability of counterfeit alternatives ultimately adversely affecting the artisans' income earning options. Eventually, the crisis in raw material has led to the decline of crafts and craft clusters for that matter.

Absence of Initiatives to Create Awareness and Access Potential Markets

In all probability, the most difficult challenge facing the craft clusters has been access to potential markets, whether at the regional/state, national, or international level. Several of the crafts either have met their end or have been on the decline as the artisans are not able to sell their products at a reasonably good price. In fact, there is hardly any policy support to explore possibilities looking beyond the local markets and gather information regarding the expectations of buyers and even wholesale and retail traders outside the local markets. It is important to recognize that the perspective on the craft sector needs to change substantively moving away from the obsession with the supply-side role in marketing to appreciate the profile of emerging demand as from different consumers across space. This is not to undermine the speciality and cultural attributes of skill and purpose underlying the craft product but rather to emphasize that "the market demand for such products remain poorly articulated mainly due to inadequate or no availability of information about the special features of these artefacts. The overwhelming presence of machine-made and standardized goods from the modern sector advertised and marketed vigorously come in direct conflict with those forthcoming from the handicraft sector" (Das and Lalitha 2015: 2).

Craft products are typically made in small batches with locally available raw materials and family-centric skills informally handed down from generation to generation. Discerning consumers have always appreciated the *handiwork* and have purchased such items not quite looking for *standardised* and *uniform* artefacts. Hence, it would be incorrect to presume that several crafts (or even the sector) face a crisis typified as the "sunset syndrome" whereby a rapid decline in market for these artefacts assumes alarming proportions. Such an eventuality calls for a distinctly different strategy that would ensure that the artisans realize the maximum possible value for their efforts and receive adequate training and re-training inputs toward diversifying their products using newer techniques and materials if necessitated by the changing consumer preferences across hierarchies of markets from local to the regional to the national to the global. Interventions

in enhancing market access would also involve spreading information to customers on the history, materials, processes, and any cultural or social values characterizing the artefacts. This calls for a serious relook into the relevance and implementation of existing policy instruments to promote craft products. "The challenge therefore is not one of market threat but rather fostering the capacity of artisans to negotiate effectively with the market, and effectively protect their own interests within a situation of constant change and unrelenting competition" (Chatterjee 2014: 17).

Policy Myopia and Dysfunctional Institutions

The very defining of handicrafts in the official parlance suggests a narrow and limiting vision about the sector as it precludes the potential of adopting a dynamic view of the activities. According to the Development Commissioner (Handicrafts), Ministry of Textiles, Government of India, "Handicrafts are mostly defined as items made by hand, often with the use of simple tools, and are generally artistic and/or traditional in nature. They are also objects of utility and objects of decoration". As the official position implies, there has been a reluctance in according the status of 'rural industries' (which use modern inputs and machinery) to craft activities which are, essentially, to be performed manually. This approach has constricted or, in the least, dissuaded the artisan enterprises in exploring potential opportunities in product diversification and enhancing productivity. The prerequisite to preserve and take pride in the craft and its associated culture, notwithstanding efforts at providing business services, technology backstopping, and helping enhance labor productivity through skill training at the enterprise and cluster level, cannot be overstated.

As, conventionally, craft units (and artisans) are found co-located in enterprise clusters, fostering crafts through the cluster development approach has attracted the fancy of policy makers since the early 2000s or so. Drawing on a "straight-jacketed" United Nations Industrial Development Organization (UNIDO) cluster development program in the late 1990s, the extant policy initiatives in craft cluster promotion leave much to be desired. These approaches are based on a limited understanding of the dynamics of and constraints facing rural enterprises and deeply flawed sectoral obsessions. Serious criticisms of these inadequate initiatives and myopic perspectives have been proffered earlier (Das 1999, 2005a, b, 2011a). Ignoring specificities of regional infirmities, within which rural clusters function, "clusters of all types have been treated more as mere MSMEs [...] and that poor understanding has led to confusion in addressing specific issues facing rural clusters. It is,

hence, often difficult to segregate, in a useful manner, policies for clusters in general and those stated to be for *rural* clusters" (Das 2011a: 292).

Rural Craft Enterprises and Clusters: Policy Relegated

Cottage and rural enterprises have received policy emphasis since at least 1938, as may be seen in *Rural and Cottage Industries: Report of the Sub-committee*, brought out under the aegis of the then National Planning Committee (Shah 1948). These have been construed as a vital mechanism for generating jobs (across levels of skill, education, and age) and local income, using local resources. Rural craft-based enterprises contribute to local income and employment generation in a substantive manner, and being often local craft- and material-based, these have served as workshops of innovation. In a way, these rural enterprises have played a role in dissuading distress-driven rural-to-urban migration. The severely inadequate policy attention to various constraints facing rural enterprises has serious implications in terms of their growth and survival. These enterprises are facing challenges of upgrading product quality, access to wider market, multi-skilling labor, accessing credit and adequate business infrastructure, and protecting the environment.

A close review of Indian Plan and numerous policy documents over the last 65 years or so since Planning began brings out an atypical phenomenon in national industrial policy: the policy eulogized and mentioned promoting of rural industries (essentially, the khadi and village industries) time and again, but the bias against it (at least in terms of actual investment in building business infrastructure, providing for adequate loan finance and helping promote market linkages and facilitating raw material procurement) has been real and significant. That the large and modern industries have amassed maximum state benefits is well established.

At least since the Second Plan, an overemphasis on the potential of the craft sector in creating employment has remained a policy rhetoric as strategies to enhance labor productivity, broad-basing skill sets through enhancing educational abilities of workers, training and re-training provisions, and building up technological capabilities of the craft units or clusters (or both) have hardly been thought through. For instance, the "Common Production Programme was repeatedly advocated but was never introduced (perhaps under pressure from big business lobby) in any industry, thus upsetting the most vital link needed to give the village industries a chance for survival. Even minor attempts at common production programmes could not make

headway because the administrative arrangements that exist are at best an appendage" (Jain 1980: 1748). Over the decades, through a series of rural industrialization programs or schemes, upgradation of technological and organizational capabilities of enterprises often has been highlighted as an important way to progress. In fact, some of the early articulation of such perspectives could be traced to what the important Karve Committee had to observe six decades ago. It held that, creation of jobs remaining the key objective, there was no alternative to invest in infrastructure, upgrading technology, and exploring markets at all levels at both the domestic and international spheres. It clarified that "any development programme for small industry should be decentralised, aimed at gradual improvement in techniques *without reducing job opportunities*, assure marketing through co-operatives, and aim at positive promotional support rather than enforce protection or reservation" (Vepa 1971: 19; emphasis ours).

The policy domain, nevertheless, remained confounded over what exactly to do in dealing with a traditional sector like crafts apart from suggesting that this could generate employment and income even of a low order. Keeping an eye on the potential and new market possibilities, there have been, however, voices of concern regarding a certain policy obstinacy or even ignorance if to modify existing processes, techniques, and materials to upgrade product quality or help diversify (Bhatt 1998). Early on, Papola and Misra (1980: 1745) observed that "If village industries are to cater to the local needs, it seems necessary that technology of the traditional industries is refurbished to meet new demands; and new products are introduced for manufacturing in the rural areas. An approach based on an emphasis on traditional products and technology is highly unlikely to succeed as a mode of rural industrialisation for income and employment generation". Suggestions included minimal mechanization, introduction of electricity, imparting new skills through training, and periodic exposure and interaction with other similar activities elsewhere, even abroad.

Over the decades, since the First Five Year Plan onwards, the neglect of rural industries and craft clusters, in particular, has continued. In a review of the policy on handicrafts spanning three decades (1955–85), it was lamented that "the resources and attention received by the handicrafts sector, relative to its contribution to employment and foreign exchange at the hands of the Plan, bear no comment. What bears comment however, is that some of the acute problems of the craftsmen – of (1) working and living space, (2) health facilities, (3) orderly supply of raw materials, (4) relief from the burden of training skilled workers which is now entirely on their lean shoulders and (5) some cushion against trade risks,…cry for attention"

(Jain 1986: 881). This is not to suggest that there have not been separate policy programs specific to the craft sector or artisans. That often there have been serious deficiencies in implementation and fund crunch has been pointed out; the economic reforms since 1991 further stymied the scope of survival and growth of rural enterprises (Chadha and Sahu 2005; Das 2005b, 2011b, 2013, 2015). Interestingly, even the recent policy suggestions, as detailed by the Government of India (2011: 18–25), touch upon all possible areas ranging from artisan welfare to cluster development to export of craft products. Table 6.4 provides a few of the central government schemes for artisans in operation. However, the Strengths, Weaknesses Opportunities, Threats (SWOT) analysis in the same document (Government of India 2011: 33–34) reveals the continuance of a plethora of constraints attributable to policy lapses.

Table 6.4 Various artisan sector-related policy initiatives

Babasaheb Ambedkar Hastshilp Vikas Yojana:
It provides for a package of benefits to the clusters of various crafts to mobilize and form self-help groups facilitating participation in training programmes, design workshops, exhibitions and common facility centres.
Scheme for Design and Technology Upgradation:
This scheme aims to provide design and technology related inputs including skill upgradation to the handicraft artisans to improve their productivity, quality and better marketability of their products. The fonancial assistance ranges between Rs. 10000 and Rs. 1 million and would be available as grants-in-aid.
Artisan Credit Cards:
Financial assistance will be provided to the tune of Rs. 500 for the number of persons to be surveyed in the form of grant-in-aid subject to a maximum of Rs. 1.50 lakh per cluster up to a cluster size of 500 artisans.
Rajiv Gandhi Shilpi Swasthya Bima Yojana (RGSSBY):
The scheme aims at financially enabling the artisan community to access to the best of health-care facilities in the country (Government of India – 75% and State Government – 25%)
Bima Yojana for Artisans (Aam Admi Bima Yojana, or AABY):
The objective of this scheme is to provide life insurance protection to the artisans (Government of India – 62%, Life Insurance Corporation – 21%, and artisan – 17%). Other schemes are the following:
Support to Indigent Artisans, Credit Guarantee Scheme, and Interest Subvention Scheme
Marketing Support and Services Scheme:
The aim of the scheme is to promote export of handicrafts, including hand-knitted carpets and floor coverings in India and abroad. The financial ceiling for Gandhi Shilp Bazaars (GSBs) and Craft bazaars is based on classification of towns.

(*continued*)

Table 6.4 (continued)

Research and Development Scheme: The scheme involves conducting surveys and studies of important crafts and make in-depth analysis of specific aspects and problems of handicrafts in order to generate useful inputs to aid policy Planning and fine tune the ongoing initiatives and to have an independent evaluation of the schemes implemented by this office.
Infrastructure and Technology Development Scheme: The scheme aims at developing high quality infrastructure to enhance competitiveness of handicrafts in the global market by enhancing product quality and reducing cost. The scheme includes promotion of Urban Haat and Mini Urban Haat with the central government bearing, respectively, 70 per cent and 80 per cent of the admissible financial cost subject to prescribed ceilings.

Source: Draws upon Das and Lalitha (2015: 21–24) and Government of India (2011: 19–25)

The low wages to workers engaged in craft activities and poor income from the craft products needed a proactive policy thrust far beyond the occasional fairs and some financial schemes which reached only a small proportion of artisans.

Official Statistics on Crafts and Artisans: Gross Neglect

Clear evidence of gross neglect meted to the Indian craft sector relates to an absence of such basic data as the number of crafts, artisans, workers, wages, value of output, value of input, income, marketing, and exports. Even as this sector has been an important source of employment and income to millions of artisans across space, in all probability, second only to agriculture, reliable official statistics on this sector unfortunately are unavailable. In fact, the only information source remains the first *Census of Handicrafts*, 1995–96. This had affirmed that artisanal activities were predominantly carried out in the unorganized sector and were spread over all states (Ameta 2003). The dominant rurality of the craft sector could be gauged from the fact that 78.2% of enterprises and 76.5% of artisans working in these units were based in rural areas and village towns. As much as 96.27% of the artisans worked at the household level. By religion, about 70% of the artisans were Hindus, 23% Muslims, 4% Christians, and 2% Sikhs. It revealed that artisans comprised 23% of the Scheduled Caste population, 11% of Scheduled Tribes, 30% of backward communities, and 36% others.

The subsequent comprehensive attempt to estimate the number of people involved with handicraft and handloom activities in India was undertaken on behalf of the Crafts Council of India, Chennai during the period of 2009–10 to understand the nature of information available to enumerate the crafts population using large-scale secondary data sources. In April 2013, in the Lok Sabha, the then minister of state for textiles replied that "The census of handicrafts artisans is now in progress… The government has engaged reputed agencies to complete the census of artisans". An indicative estimate of number of artisans for 2010–11 was 68.86 lakh. The first *Census of Handicrafts* of 1995–96 had put this figure at 47.61 lakh.

The widely varying estimates of persons engaged in crafts based on the National Sample Survey Office (NSSO) and the Population Census are due to the differences in database and definitions used to identify a craftsperson.

As Viswanathan (2013) would argue, the Census data have an excellent geographic coverage but are lean in terms of details of the work. The occupational classification cannot be overlaid on the industrial classification to understand the nature of activities performed by the craftspersons. Furthermore, it does not include marginal workers and also does not provide information for those involved in home-based activities. The NSSO sampling helps in generating overall craft population estimates and provides several other details about the socio-economic conditions of the craftspersons. *Both* occupational classification and industrial classification can be used to arrive at the estimates. The excellent attempt by Viswanathan (2013) to estimate the number of artisans drawing upon alternative sources has confirmed the huge discrepancy in final figures arrived at as between sources and methods; the self-explanatory Table 6.5 presents the key information by state.

For sure, even officially, no one knows how many crafts and artisans engaged therein exist (or existed) in India. This is despite an earnest recognition that they play a significant part in the emerging and changing spheres of culture, tradition, and work. The remarkable (and somewhat disturbing) hiatus in knowledge is possible to attribute to an inadequate or no understanding about the significance of this activity as it acts as a source of employment, income, and pride.

Table 6.5 Statewise crafts population based on different definitions (NSSO: 2004–05 and Census: 2001)

(in thousands)

States	*CCI-census*	*CCI-NSSO*	*DC-H-NSSO*	*LR-NSSO*
Jammu and Kashmir	244.74	175.79	144.23	146.34
Himachal Pradesh	144.38	61.10	15.08	18.26
Punjab	927.20	395.35	166.97	152.96
Uttaranchal	184.90	31.19	11.83	5.67
Haryana	660.14	385.79	87.83	154.82
Delhi	888.30	255.79	112.50	171.34
Rajasthan	1729.65	714.12	307.45	637.92
Uttar Pradesh	3578.05	3109.67	1899.90	1922.41
Bihar	989.60	469.02	182.66	219.85
Sikkim	12.42	2.33	0.25	0.33
Arunachal Pradesh	14.13	1.62	0.48	1.79
Nagaland	16.57	22.43	16.10	15.74
Manipur	59.49	37.10	28.97	25.64
Mizoram	14.66	3.27	0.32	0.50
Tripura	64.75	27.52	8.12	10.97
Meghalaya	28.24	30.44	22.17	27.12
Assam	414.27	156.98	79.99	88.11
West Bengal	3159.43	1367.48	865.01	1199.69
Jharkhand	568.55	245.09	176.89	183.91
Odisha	726.50	933.37	457.88	564.95
Chhattisgarh	372.40	187.59	111.79	97.18
Madhya Pradesh	1136.06	581.08	350.03	273.53
Gujarat	2555.74	1519.41	928.74	1389.80
Maharashtra	3461.14	1525.44	547.06	872.86
Andhra Pradesh	2382.95	1208.27	814.95	989.19
Karnataka	1760.03	620.42	313.98	470.02
Goa	58.91	5.80	2.29	2.29
Kerala	1371.88	492.77	236.84	198.66
Tamil Nadu	3417.80	2187.78	1283.32	1657.56
All India	31,098.72	16,794.73	9186.13	11,518.58

Source: Viswanathan (2013: 47)

Two Craft Clusters from Rural Rajasthan and Assam

In the absence of reliable official statistics on craft clusters in rural India, based on informal sources of information, two clusters have been chosen for discussion in this chapter. These are (i) the clay terracotta cluster in Molela in the western Indian state of Rajasthan and (ii) the bamboo craft cluster in Barpeta in the northeastern state of Assam. Detailed household

and village-level surveys had been conducted in both the clusters on the basis of structured interviews with artisans as well as other relevant stakeholders in the villages.

The over-400-year-old votive terracotta cluster has survived largely catering to local demand, and there has been minimal diversification of the products to shapes and designs which are somewhat modern and at times utility-oriented such as bells, stylized lamps, door/wall hangings, and so on. This is a classic instance where hardly any innovation in product or process has taken place over the centuries. Currently, this craft cluster engages a total of 55 households (all surveyed) that carry out this exclusively traditional skill-based manual work at their homestead. The key raw material used is clay from the local ponds and water bodies and is mixed with rice chaff and donkey dung to strengthen the clay lump or *pindi*. These are then mounted on *patiyas* (small flat wooden bases) and given intricate shapes often with hollow exteriors as and when required. These are then dried and fired in local *bhattis* before being stacked for customers. Interestingly, the families pursuing this craft have originally migrated from nearby Bagol village and settled in.

The brittle, heavy, and localized terracotta products from the Molela cluster have been facing a new crisis of dwindling of its very raw material—the local clay—because real estate developers have taken over the land where clay was a free good until recent years. There has been practically no state support in terms of facilitating marketing of the products or providing for a common facility center (CFC), so essential for collective learning and sharing of tools and ideas in a cluster. As the market for these goods has been dictated by local demand, an informal and often unscrupulous way of doing business has destroyed the spirit of mutual cooperation and has encouraged mistrust among artisan households. One important outcome of such a situation of low-end production and improper marketing has been that price competition has emerged as the central practice of doing business. Under-selling the otherwise less-pricey goods has resulted in poor income for the artisan households. One approach that the household units have commonly adopted to address this has been to underpay the hired workers to save on labor cost at least. Of the total of 161 workers, those skilled accounted for 100 (62.1%), and the average number of workers per unit worked out to be 2.9, suggesting that the cluster was composed almost entirely of tiny enterprises. The artisans and the family members who work as unpaid workers do not find the activity remunerative.

Table 6.6 Wages and mode of payment in Molela terracotta cluster, Rajasthan

(Rs.)

Piece/Job	*Piece rate*		*Average daily earning*	
	Skilled	*Unskilled*	*Skilled*	*Unskilled*
Statue	200	150	300	200
Tiles	50	–	500	–
Utensils	10	–	100	–
Casual worker[a]	250	200	250	200

Source: Field survey

[a]Wages per working day

As may be observed from Table 6.6, the mode of payment of wages is piece rate–based and the rates per se are extremely low. If one estimates the daily earnings (of course, only for days of work), the income earned by either the skilled or unskilled workers is higher than the respective prescribed Minimum Wages in 2011 (the year of the field survey) by the state of Rajasthan, which was Rs. 135 for "Unskilled" workers and Rs. 155 for "Skilled" (Rs. 205 for "Highly Skilled") workers. What is important to note is that while the craft work is purely seasonal and highly uncertain, it remains a better source of income than that of the farm sector, which is more uncertain and limited in scope as far as acting as a source of employment in the arid region.

The bamboo craft cluster in Barpeta in its present organized form is about 50 years old and is known for the dexterity of the craftspersons; in fact, apart from the regular decorative (wall hangings, pictures, fancy ornaments, and so on) and utility (furniture, baskets, containers, incense sticks, and so on) items, the cluster has showcased intricate work such as decorative partition screens, finely woven showpiece umbrellas, and several attractive artefacts. Unlike the Molela case, this cluster has access to an abundant supply of its sole raw material, bamboo. Moreover, the cluster has emerged as a major supplier to the North Eastern Handicrafts and Handlooms Development Corporation Ltd. This cluster, however, faces serious constraints such as unreliable supply of power, poor market links, inadequate loan capital, and absence of scope to diversify to quality products and processes through technological upgradation. Even though in this cluster there exists a CFC (set up under the central government's Scheme of Fund for Regeneration of Traditional Industries scheme), it has remained grossly

unused as practically no local craftsperson is keen to be trained here. The artisans are mostly using the cutting and drilling machines as they are not acquainted with the operation and benefit of some of the machineries kept at the CFC. In the absence of any initiatives to familiarize or train the artisans to use the machineries installed, the potential for enhancing labor productivity has been missed. For instance, for furniture making, had the moulding process been introduced as part of the CFC scheme, it would have contributed to labor income and demand as well.

A survey of the 60 craft enterprises (of about 1500) revealed that almost all of the units operated from the homestead, Muslims being the predominant artisans. Of the total of 212 workers covered in the field surveys, 113 (or about 53%) were skilled workers. On average, they were able to earn Rs. 250–300 per day. This can be said to be sufficiently higher as compared with similar artisanal clusters operating in nearby areas; for instance, in the Kayakuchi bamboo cluster, the daily earning was much lower at Rs. 50–60. The division of labor was clear in that males would undertake the initial semi-processing of the bamboos, followed by women and children doing the more labor-intensive and finer components of the products. The future of the cluster is very much dependent upon the nature and expansion of markets for bamboo furniture and other household articles.

The rather brief discussions on the two different craft clusters in rural India share a number of characteristics having implications for work and earnings for the artisans. The clusters have thrived entirely on locally available natural raw materials and traditionally developed skills/techniques using simple and age-old tools. This has implied that the suitability of the products for sale would be affected by the value-to-weight ratio and/or value-to-brittleness/perishability ratio in targeting the market (whether the local, regional/subnational, national, or global). “Terracotta items or bamboo products, for instance, could be highly restricted in terms of serving higher levels of markets merely due to the physical characteristics of the raw material used. Similarly, the production of certain items would be severely constrained by the techniques of production or designs that include, for instance, manual processes and/or inefficient or inappropriate fuel and energy” (Das 2015: 142). The nature of local and regional markets influences their craft and business practices, including opting for small-batch production. It is useful to note that in the absence of developed market channels in rural areas for craft products, intermediaries such as traders and subcontractors emerge as key business dealers. For instance, traders accounted for as high as 39% and 96%, respectively, in case of the

terracotta cluster and bamboo craft cluster. The common experience has been that the price paid by these middlemen to artisans is much below the price at which they manage to sell. As the prices needed to be kept low to render these items affordable in the low-end markets, labor cost-cutting emerges as an important strategy of business.

The prevalent mode of payment for artisans remains piece rate–based, and rates vary significantly across type of activity or objects or their parts made; skill levels would decide the average daily earnings of workers. However, as the craft activities are not undertaken year-round (because of either seasonality of raw material access or demand crunch), the average annual earnings from the craft clusters often remain abysmally low depending upon a limited number of days of work. In the absence of any state regulation or vigilance, the micro units derive their sustenance through perpetuating poor working conditions, exploitation of family labor, and practically no provision for training and skill upgradation. Moreover, in the absence of incentives to innovate and improve product and process standards, the prices are set low, leading to a situation whereby crafts have become a livelihood strategy to barely survive. The clusters pursue informal work arrangements, adding to the uncertainties of labor in their pursuits of a livelihood option.

Concluding Observations

With the farm sector continuing with unimpressive performance in terms of the growth of value of output, agricultural infrastructure, and sustained massive rise in the landless agricultural laborers, marginal and small farmers' non-farm employment remains a potential source of local income and job generation. The majority of the non-farm or off-farm jobs appear to be in urban areas whether close by or far-flung. A growing phenomenon of rural-urban migration has emerged as the most pragmatic coping mechanism that the rural poor and unemployed opted for, irrespective of the fact that most migrant workers with no or little employable skills and access to supportive institutional networks have ended up in hostile urban environs earning and living low. To observe that most of these migrant workers are exploited by their employers and are not covered by any social security measures is to make an understatement. Several of these workers are temporary or seasonal migrants shunting between their roots and occasional spaces of livelihood.

The precarious nature of distress migration from rural to urban areas leaves one sector as a plausible source of work and income: rural enterprises,

usually in clusters. Interestingly, more than half of MSMEs in India are located in rural areas or what are often called "village towns". Between the Second (1987–88) and Fourth (2006–07) *Censuses* of small enterprises or MSMEs, the number of units in rural areas has witnessed a staggering increase, from about 0.2 million to 13.5 million. The issue of concern has been that the proportion of informal units in these enterprises has remained over 90% across censuses, and the figure reached around 95% as revealed in the *Fourth MSME Census*. Furthermore, unconfirmed estimates suggest that, of the around 6400 clusters in India, as much as about 94% of these are related to crafts (both handlooms and handicrafts). It is widely acknowledged that most of these craft clusters are besieged with serious constraints such as limited or no access to loan finance, technology support, business infrastructure, and wider markets. A critical area in which most rural craft clusters are deficient concerns the use of electricity at the enterprise level. As argued on earlier occasions, "This one-off intervention per se has the potential to transform the productivity and innovative capability of rural clusters significantly" (Das 2015: 139). These limitations have also acted as disincentives to engage in innovations at both the product or processes spheres.

That state policies have hardly helped preserve and promote craft skills and business is justified by the fact that there are no reliable and comprehensive official statistics on the craft activities and that implies that whatever schemes meant for artisans or their products would not be reaching most of the craftspersons. As quite a number of crafts are on the decline (including those known as *languishing* crafts, on the verge of a complete collapse, as referred to in Ranjan and Ranjan (2007)) because of a raw material crisis, skill shortage, and dwindling demand, craft clusters in rural India are no longer the potential sources of large-scale employment and income generation. A variety of institutional constraints facing these clusters over the decades reaffirm the neglect meted out to artisans and all those who assist them.

Considering craft enterprises as industrial activities and sources of business, it must be recognized that to build up the technological capability of a craft cluster would necessarily involve the *endowments of the spatiality* such as social, physical, and economic infrastructure and the *enabling* institutions. That the Indian approach to promotion of craft clusters, compared with fascinating policy initiatives taken even in Asian economies, lacks insights and proactive policy instruments has been discussed at length elsewhere (Das 2008, 2015). The two case studies of rural craft clusters in Rajasthan and Assam affirm this observation.

Under these circumstances, there is practically no scope for addressing concerns of labor. As both the production and labor processes are steeped in informal practices, decent work conditions are practically absent in these enterprises. The chances of raising labor productivity are as rare as the likelihood of being paid commensurate with one's labor productivity. As perceptively argued by Saith (2001: 119), "Given the disadvantages of deep rural locations and the higher transactions costs involved" it would be preposterous to presume that policy-induced rural clusters would be sustainable, efficient, and competitive. In that sense, expectations of rural clusters to emerge as sources of employment or even to address poverty would be misplaced. Moreover, a close perusal of rural/craft cluster development approaches in India (as almost summarily determined by the highly problematic *labor-shy* mid-1990s cluster development program of the UNIDO) reveals that these much-touted approaches did maintain a *strategic silence* on the labor question in clusters severely disadvantaged by informality, rurality, and a despair that has come to characterize craft as a respectable and sustainable profession.

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CHAPTER 7

Casualization and Shift of Rural Workers to Non-farm Activities

Partha Saha and Sher Verick

Introduction

One of the biggest challenges that the economy faces today is to provide quality jobs to its growing labor force and thereby reap the benefits of demographic dividend. Despite unprecedented economic growth, the economy failed to generate enough employment opportunities for its growing population. During the period of 1999–2000 to 2011–12, the average annual growth rate of the gross domestic product was 7.4% (GoI 2013). This high and unprecedented rate of economic growth, however, failed to create any significant impact toward generation of productive and decent work opportunities, particularly in rural areas.

Both national-level studies as well as studies based on primary surveys in specific locations have indicated a growing importance of the non-farm sector in rural India. Based on a nationally representative household survey

P. Saha (✉)
School of Development Studies, Ambedkar University, Delhi, India

S. Verick
ILO Decent Work Team for South Asia and Country Office for India, New Delhi, India

D.N. Reddy, K. Sarap (eds.), *Rural Labour Mobility in Times of Structural Transformation*,
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in rural areas, Lanjouw and Shariff (2004) observed that, on average, non-farm income accounted for one third of all household income. Several studies at regional and village levels also indicated the growing importance of non-farm activities in the rural economy. Petty businesses (like tea stall, cycle repairing shops) as well as cane crushers, rice mills, and transport operators were growing in number in several parts of rural India (Wiser and Wiser 1971; Epstein 1973; Srinivas 1976). Basant (1993), based on a primary survey in Gujarat, observed that nearly three fourths of the sample households had reported more than one source of income. Studies have pointed out instances where individuals (primarily males) in rural areas were specializing in occupations like band-playing, boring tube wells, and construction-related activities (Saith and Tankha 1992; Saha 2014).

By and large, two alternative hypotheses have been used to explain this phenomenon of increasing rural non-farm employment (RNFE). On the one hand, it has been argued that this diversification is due to push factor or driven by agricultural distress (Vaidyanathan 1986; Ghuman 2005); on the other hand, it is argued to be driven by agricultural growth (that is, farm and non-farm sectors act as complementary to each other). In other words, agriculture has been argued to play a role in growth and development of the non-farm sector; in some areas, agricultural growth has spurred non-farm activities (and hence resulted in non-farm employment), while in others, lack of agricultural growth has pushed people into non-agricultural sources of livelihood and in this sense non-farm activities were viewed as a "residual" sector.

The "push effect" resulting from agricultural stagnation was enhanced by higher wages in the non-agricultural sector. The availability of non-agricultural employment at higher wages (compared with those prevailing in agriculture) was primarily located within infrastructure and construction sectors which have been focal points of overall economic development for policy makers. However, employment opportunities created in these sectors have been casual in nature; therefore, for the last one and half decades, increasing non-agricultural employment was accompanied by a growing casualization of the workforce.

While the rationale for undertaking this research is to understand the rural non-farm sector in India, an overarching objective of this study is to try to arrive at some broad conclusions across space regarding the factors that influence occupational shift in rural areas. More specifically, the

chapter will try to explore whether the occupational shift happening in rural India is distress-driven or not.

This study is primarily based on Employment and Unemployment Surveys conducted by the National Sample Survey Office (NSSO) for the years 1999–2000 and 2011–12. In addition to consulting employment and unemployment surveys, this study takes into account All India Debt and Investment Surveys for the years 2002–3 and 2012–13, which also were conducted by NSSO. It may be pointed out at the outset that the analysis presented here is based on workers who are employed as per usual principal activity status (that is, employed for at least half of the reference year) and that the objective is to capture the trends in participation in rural labor market for a longer time duration.

For all the statistical work in this chapter, we have focused on employment of persons in the age group of 15 years and above. In many writings on employment based on National Sample Survey (NSS) data (particularly, female employment), including on the recent trends, low/declining levels of employment among women have been explained on account of withdrawal of girls from the workforce and increasing school attendance among girls. By limiting all our statistical work to the age group of 15 years and above, we have tried to separate out trends in employment from trends in school attendance.

The "Rural Diversification: Extent and Pattern" section looks into the extent and pattern of RNFE during the period of 1999–2000 and 2011–12 (the latest year for which large-sample employment and unemployment surveys are available). This section also analyzes the shift in principal source of income from agriculture to non-agriculture across asset deciles by using All India Debt and Investment Surveys. In the "Rural Non-farm Activities" section, we analyze employment opportunities in the non-farm sector and type of employment. The "Quality of Employment" section focuses on quality of employment in the non-farm sector and educational qualification of workers. Land being the most important means of production in rural areas, the "Determinants of Rural Diversification" section looks into the role of agriculture and access to land in rural diversification. The "MGNREGA & Impact on Rural Livelihood" section looks into how the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) provided a safety net in this process of occupational shift. Finally, the last section provides a brief summary.

Rural Diversification: Extent and Pattern

As already mentioned at the very beginning, in order to reap benefits of demographic dividend, it is important that productive, decent, and durable (longer term) employment opportunities be created on a sustained basis. With the spread of educational opportunities, expectation regarding such employment has risen, particularly among the youth. Moving out of agricultural employment is primarily to achieve decent and productive work opportunities (although other reasons like land fragmentation, falling agricultural profitability, and increasing agricultural mechanization are also important). During the period of 1999–2000 to 2011–12, there has been a considerable increase in RNFE in both principal and subsidiary status (Table 7.1). The rise in RNFE was experienced both among males and females. Overall, RNFE increased by 12% in 12 years, which implies a 1% increase every year. Given the size of India's workforce, such a shift in favor of non-farm employment is indeed significant.

Having observed that there has been a significant shift in favor of RNFE, we next need to look at whether this shift is taking place across all economic classes. To find this out, we have analyzed All India Debt and Investment Survey data for the years 2002–3 and 2012–13. The primary objectives of these decadal surveys are to arrive at estimates of asset ownership and extent of liabilities of households and also to make an assessment regarding the extent of borrowing. These decadal surveys provide data on the value and composition of household assets along with information on household indebtedness.

Table 7.1 Percentage of rural workers (15 years and above) in non-farm activities, all India, 1999–2000 and 2011–12

State	*1999–2000*	*2011–12*
Male (principal status)	28.9	40.86
Male (subsidiary status)	18.5	42.03
Female (principal status)	15.8	25.51
Female (subsidiary status)	10.0	33.26
All non-farm workers (principal status)	25.1	37.21
All non-farm workers (subsidiary status)	14.8	37.91

Source: Calculated from employment and unemployment survey, NSSO, 1999–2000 and 2011–12

Economic well-being of a household in a rural or agrarian economy is crucially linked to ownership of assets. In an agrarian economy, whether workers in a household sell their labor power or deploy it in their own household enterprise depends crucially on the extent to which they own various means of production. Also, ownership of assets provides a certain degree of security against adverse economic shocks.

All items owned by the households having money value were considered as household assets. This included physical assets like land, buildings, livestock, agricultural machinery and implements, non-farm business equipment, all transport equipment, and durable household goods and financial assets like dues receivable on loan advances in cash or in kind and shares and deposits held by the members of the household.

From Table 7.2, we can clearly observe that the shift from agriculture to non-agriculture has happened across all asset deciles, and in rural India, the proportion of agricultural households (that is, households whose principal source of income comes from agriculture) has declined from 63% in 2002–3 to 58% in 2012–13. However, the decline in proportion of agricultural households was much less at higher asset deciles as compared with lower deciles. From Table 7.2, it could be observed that the magnitude of decline from fifth decile onwards was much less. In other words,

Table 7.2 Percentage distribution of rural households, by household type within each asset ownership decile, 2002–03 and 2012–13

Asset decile	*Agriculture*		*Non-agriculture*	
	2002–03	*2012–13*	*2002–03*	*2012–13*
0–10	42.1	34.8	57.9	65.2
10–20	60.5	47.9	39.5	52.1
20–30	59.8	52.3	40.2	47.7
30–40	62.0	49.8	38.0	50.2
40–50	61.5	58.3	38.5	41.7
50–60	63.2	62.2	36.8	37.8
60–70	66.1	66.2	33.9	33.8
70–80	70.6	69.1	29.4	30.9
80–90	71.6	70.5	28.4	29.5
90–100	76.4	72.0	23.6	28.0

Source: Calculated from All India Debt and Investment Survey, NSSO, 2002–3 and 2012–13
Note: Non-agriculture includes self-employed in non-agriculture, other labor households, and other households. Agriculture includes self-employed in agriculture and agriculture labor households

Table 7.3 Percentage distribution of rural non-agricultural households, by household type within each asset ownership decile, 2002–03 and 2012–13

Asset decile	*Self-employed in non-agriculture*		*Non-agricultural wage employment*	
	2002–03	*2012–13*	*2002–03*	*2012–13*
0–10	18.5	10.1	81.5	89.9
10–20	41.1	18.0	58.9	82.0
20–30	40.9	23.8	59.1	76.2
30–40	41.6	28.3	58.4	71.7
40–50	42.6	29.6	57.4	70.4
50–60	43.6	30.4	56.4	69.6
60–70	43.3	29.4	56.7	70.6
70–80	40.6	32.4	59.4	67.6
80–90	40.7	32.2	59.3	67.8
90–100	40.3	37.2	59.7	62.8

Source: Calculated from All India Debt and Investment Survey, NSSO, 2002–3 and 2012–13

the shift from agriculture to non-agriculture was much more pronounced among poorer households.

Among non-agricultural households, the proportion of households having non-agricultural laboring out as principal source of income increased considerably between 2002–3 and 2012–13, and again the shift toward non-agricultural wage employment (and away from self-employment) was more prominent among poorer households (Table 7.3).

Overall, during the period from 1999–2000 to 2011–12, there has been a significant shift in rural workforce from agriculture to non-agricultural activities, and this shift was more prominent among households with a lower asset base. Also, among the non-agricultural households, the share of self-employed households declined and the share of households depending primarily on wage employment increased. So it can be reasonably concluded that households with a lower asset base were depending more and more on non-agricultural sources of income, primarily on non-agricultural wage employment.

Rural Non-farm Activities

We now look into the non-farm sector and the activities that are generating significant employment opportunities. For our analysis, the non-farm sector has been broadly classified under four major heads: manufacturing,

Table 7.4 Percentage of rural workers in non-farm employment (15 years and above), by industry, principal status, 1999–2000 and 2011–12

Sector	*1999–2000*		*2011–12*	
	Industry	*Percentage of workers*	*Industry*	*Percentage of workers*
All manufacturing	–	29.2	–	22.7
Construction	–	14.4	–	30.1
Other non-manufacturing	–	2.8	–	2.1
All non-manufacturing	–	17.2	–	32.2
All services	–	53.6	–	45.1
All non-farm sector	–	100	–	100

Source: Calculated from employment & unemployment survey, NSSO, 1999–2000 and 2011–12

construction, other non-manufacturing, and services. The biggest increase in non-agricultural employment has been in the construction sector, where the share of non-farm employment increased from 14.4% in 1999–2000 to 30.1% in 2011–12. The increase in employment in the construction sector along with increased infrastructure investment gave a major boost to total employment attracting agricultural workers. Among non-farm activities, construction was one of the predominant forms of employment to a considerable section of workers because it did not necessarily ask for any specific skill and because the option of seasonal employment allowed workers to take up agricultural activities during peak agricultural seasons (Ranjan 2009) (Table 7.4).

Even though the share of the manufacturing sector in RNFE declined during the period of 1999–2000 and 2011–12, manufacturing employment has increased at an average annual rate of 2.13%. Similarly, even though the share of the service sector has declined, overall employment in the service sector has increased by an average annual rate of 3.02%. The reason why the share of both the manufacturing sector and the service sector declined despite an overall increase in employment is the unprecedented growth of employment in the construction industry (which is part of the non-manufacturing sector). During the period of 1999–2000 and 2011–12, employment in the construction sector grew at an average annual rate of 19.85%. The increase in construction sector employment alone contributed 55.5% to the overall increase in RNFE. In other words, the construction sector alone accounted for more than half of the overall increase in RNFE between 1999–2000 and 2011–12.

Next we look into type of employment. Overall, within the rural non-farm sector, there has been a decline in self-employment and a rise in casual wage employment. Only the service sector experienced a rise in self-employment (Table 7.5). What we observe from Table 7.5 is that, as far as type of employment is concerned, manufacturing, construction, and services indicate three different trends:

- Manufacturing employment is moving more toward wage employment (both salaried and casual wage employment).
- Construction employment is moving significantly toward casual wage employment only. The dominance of the construction sector in casual wage employment was to such an extent that, in 2011–12, 72% of all casual workers were employed in the construction sector alone (Table 7.5).
- Service sector employment is moving more toward self-employment and salaried wage employment. The trend indicates a significant decline in casual wage employment in the service sector.

Except for the service sector, by and large, there has been an increase in casual wage employment among rural non-farm workers. Jatav and Sen (2013) noted that more than half of the rural workers in the non-farm sector who changed their industry in the latter half of the last decade came from the farm sector. These proportions were higher even in case of agriculturally advanced states like Punjab (76%) and Gujarat (73%) in

Table 7.5 Percentage of rural workers (15 years and above) in non-farm activities, by type of employment, all India, 1999–2000 and 2011–12

Status/Sector	*Self-employment*		*Salaried employment*		*Casual wage employment*	
Principal status	*1999–2000*	*2011–12*	*1999–2000*	*2011–12*	*1999–2000*	*2011–12*
Manufacturing	55.6	51.2	23.1	26.3	21.3	22.5
Construction	20.8	8.9	3.3	2.3	75.9	88.7
Other non-manufacturing	9.8	6.2	34.3	38.4	55.9	55.4
Services	50.4	53.8	33.4	37.5	16.2	8.7
All non-farm sector	46.5	38.7	24.6	24.4	28.9	36.9

Source: Calculated from employment & unemployment survey, NSSO, 1999–2000 and 2011–12

Table 7.6 Proportion of rural non-farm workers (15 years and above) in self-employment, by usual principal status, by gender, all India

Gender	*1999–2000*	*2011–12*
Male	45.5	38.1
Female	57.4	42.1
All	47.7	38.7

Source: Calculated from employment & unemployment survey, NSSO, 1999–2000 and 2011–12

Table 7.7 Proportion of rural non-farm workers (15 years and above) in casual wage employment, by usual principal status, by gender, all India

Gender	*1999–2000*	*2011–12*
Male	27.6	38.2
Female	22.1	30.2
All	26.6	36.9

Source: Calculated from employment & unemployment survey, NSSO, 1999–2000 and 2011–12

addition to backward states like Chhattisgarh (97%) and Rajasthan (87%). The shift from farm to non-farm employment has resulted in a fall in share of self-employment and a rise in share of casual wage employment within the rural non-farm sector (Tables 7.6 and 7.7). Within the rural non-farm sector, the construction industry experienced massive growth in employment, accounting for more than half of the increase in overall employment, although it was in the form of casual wage employment. Owing to the massive increase in casual wage employment in the construction sector alone, overall there has been a significant shift toward casual wage employment in rural India. The increase in construction sector employment was the result of a high growth rate which it witnessed during eleventh and twelfth five-year plan periods.[1] This positive effect in terms of high growth and higher wages came at a time when rural areas were witnessing agricultural stagnation and declining employment opportunities within agriculture. Although the nature of employment created in the construction sector was primarily casual wage employment, the construction sector played a crucial role in absorbing the rural workforce which was rendered unemployed because of stagnation in agriculture. Studies based on earlier periods have also referred to the phenomenon of casualization of workforce and pointed toward deflationary tendencies that persisted in the economy.[2]

Quality of Employment

A shift from agricultural employment to formal sector non-agricultural employment does not happen at one go, and quite often shifts in qualitatively better employment opportunities happen over generations. But the important point is that the shift from agricultural to non-agricultural sources of income is a dominant phenomenon in the Indian economy.

In the previous section, we observed that there was a tendency toward increasing casualization of RNFE. Such work opportunities do not have any written contract between the employer and the employee. Table 7.8 precisely reflects this trend among rural non-farm wage employment toward increasing casualization without any written contract. Between 2004–5 and 2011–12, there was a 7% increase in the proportion of rural non-farm wage workers who did not have any written contract. Clearly, an overwhelmingly vast majority of rural non-farm wage employment existed without any formal contract.

This was, however, contrary to the idea of decent work and inclusive growth. In order to achieve inclusive growth, the 12th Five-Year Plan stressed generating a sufficient number of productive and decent work opportunities. Rural employment generation during the last decade has been rather sluggish, particularly when viewed against the high rate of economic growth. One of the positive things that have happened was the increase in formal sector employment in the rural non-farm sector. However, what was a matter of concern was the increasing trend of informal employment contracts even within the formal sector. From Table 7.9,

Table 7.8 Percentage of rural workers (15 years and above) in non-farm wage employment, by type of job contract, all India, 2004–05 and 2011–12

Status/Sector	*No written contract*		*Written contract up to 1 year*		*Written contract for more than 1 year*	
Principal status	*2004–05*	*2011–12*	*2004–05*	*2011–12*	*2004–05*	*2011–12*
Manufacturing	90.3	88.8	1.5	1.8	8.2	9.2
Construction	96.5	96.8	0.4	1.5	3.1	0.8
Other non-manufacturing	79.9	76.2	3.4	1.7	16.7	21.9
Services	63.2	65.9	2.9	3.6	33.9	29.9
All non-farm sector	80.3	87.0	1.8	1.6	17.9	11.4

Source: Calculated from employment & unemployment survey, NSSO, 1999–2000 and 2011–12

Table 7.9 Percentage of rural workers (15 years and above) in non-farm formal sector employment, by formal and informal nature of employment, all India, 2004–05 and 2011–12

Status/Sector	*Employed in formal sector*		*Formal sector and formal employment (as percentage of all formal sector employment)*		*Formal sector but informal employment (as percentage of all formal sector employment)*	
Principal status	*2004–05*	*2011–12*	*2004–05*	*2011–12*	*2004–05*	*2011–12*
Manufacturing	22.4	42.2	24.3	31.4	75.7	68.6
Construction	18.0	35.6	3.9	8.5	96.1	91.5
Other non-manufacturing	61.4	91.8	38.7	51.4	61.3	48.6
Services	28.9	34.6	66.7	65.1	33.3	34.9
All non-farm sector	25.6	37.8	46.1	40.5	53.9	59.5

Source: Calculated from employment & unemployment survey, NSSO, 1999–2000 and 2011–12
Note: Informal employment is defined as that form of employment where the employee is not eligible for any kind of social security benefit like provident fund, gratuity, pension, health care, maternity benefit, and so on

we observe that close to 60% of formal sector jobs were characterized by informal employment contracts. So, even within the formal sector, 60% of workers work under informal job arrangement with no social security benefit.

Educational attainment is an important determinant of quality of job (IHDR 2011; World Bank 2012; IHD 2014). With one fourth of rural non-farm workers being illiterate, educational levels of workers in the non-farm sector remain a matter of concern, particularly when the non-farm sector is supposed to provide productive and decent employment opportunities. Although the share of illiterate workers has declined over the years, more than one third of workers in the construction sector (which experienced significant employment growth) remained illiterate (Table 7.10). Clearly, these workers are employed in casual wage employment with very little or no social security at all. This is a big challenge for the largest growing sector in terms of providing decent employment and particularly so when it accounts for 36.2% of all illiterate workers in the rural non-farm sector.

Within the service sector (with trend indicating to a shift toward self-employment and salaried wage employment), the share of workers with a

Table 7.10 Percentage of rural workers (15 years and above) in non-farm employment, by level of education, all India, 1999–2000 and 2011–12

Status/Sector	*Illiterate*		*Primary*		*Secondary*		*Higher secondary and above*	
Principal status	*1999–2000*	*2011–12*	*1999–2000*	*2011–12*	*1999–2000*	*2011–12*	*1999–2000*	*2011–12*
Manufacturing	37.3	26.6	15.8	16.2	8.8	12.2	5.6	11.9
Construction	44.1	36.2	15.1	17.6	7.2	8.8	2.7	4.6
Other non-manufacturing	43.4	32.2	13.4	16.0	12.5	12.2	5.5	15.4
Services	24.1	16.1	12.2	12.2	15.1	16.5	18.5	27.8
All non-farm sector	31.4	24.8	13.7	14.8	12.0	13.1	12.1	17.0

Source: Calculated from employment & unemployment survey, NSSO, 1999–2000 and 2011–12
Note: The categories of level of education will not add up to 100%, because we have not taken into account certain categories like literate without formal schooling and literate below primary

higher secondary educational level and above experienced an increase of 10% points (Table 7.10). Also, among all workers with at least a higher secondary education, services accounted for at least three fourths of them. It is difficult to conclusively determine how educational attainment can influence RNFE. There are occupations in which workers are involved regardless of their educational attainment. Also, there are occupations which require a high degree of skill. Formal education is not necessarily an important factor in determining non-farm employment in rural areas. However, as far as decent job opportunities are concerned, this analysis indicated that decent job opportunities in services improved with higher levels of education.

Although there were occupations in which workers were involved regardless of their educational attainment, education does play an important role in determining the quality of employment. With one fourth of rural non-farm workers being illiterate, educational levels of workers in the non-farm sector remained a matter of concern. A low general education base makes skill training more difficult.[3] The construction industry, which was the largest employment-creating industry in the country, also accounted for the largest share of illiterate workers and also a very small share of workers with a technical degree. The service sector provided greater employment opportunities for the better-educated workers.

Determinants of Rural Diversification

Role of Agriculture in Rural Diversification

The linkage between agriculture and non-agriculture became a subject of interest with the advent of the green revolution, and the new technology was seen to have resulted in higher agricultural productivity, higher income of farmers, and a spurt in demand for consumption goods produced in the non-farm sector. Scholars who were documenting the impact of the green revolution in agriculture came across new economic activities related to agriculture in the green revolution villages. The forward and backward linkages of the new agricultural production techniques had spawned a series of new related economic activities in the villages. Also, agricultural growth resulted in greater demand for certain inputs (like fertilizers and seeds); in the process, agricultural growth resulted in growth

in the non-farm sector (both consumption and production goods sector) and vice versa (Mellor 1976). In another study, Hazell and Haggblade (1990) calculated that, on average, an increase in agricultural income by Rs. 100 was associated with an increase in non-farm income by Rs. 64 (Rs. 25 in rural villages and Rs. 39 in rural towns).

In addition to complementarity between agriculture and non-farm sectors, studies have pointed out agricultural "distress induced" development of non-farm sectors. For example, using State-level data, Vaidyanathan (1986) noted that where agriculture was unable to provide employment, the non-farm sector played a crucial role in absorbing the surplus labor and that "rural workers who cannot get adequate work in agriculture spill over into rural non-agricultral activities so that the later act ….as a sponge for the excess labor". Vaidyanathan (1986) further advanced the hypothesis that "the higher the rate of unemployment, the higher is likely to be the share of non-agricultural sector in total rural employment and the lower the non-agricultural wage relative to that in agriculture". The author established a positive association between non-farm employment and agricultural income as well as income distribution.[4]

There have been several studies analyzing the role played by agriculture in promoting non-farm employment. Whereas some of these studies have indicated the positive role played by agricultural growth, others noted that it was not really the growth and dynamism of the agricultural sector which contributed to non-farm employment. Furthermore, neither commercialization of agriculture nor infrastructural development led to an increase in non-farm employment (Ranjan 2009).

One of the important changes happening in Indian agriculture since 1991 has been increasing mechanization of agriculture resulting in large-scale displacement of workers from farm sector. Production and sale of tractors have continued over the last two decades despite the slowdown in the agricultural sector. The agricultural sector of Indian has a higher density of four-wheel tractors than that of less-developed countries, and India is also one of the largest manufacturers of tractors in the world (Sarkar 2013). The domestic sale of tractors has experienced a phenomenal increase particularly since 2003–4. Between 2003–4 and 2009–10, the compound annual rate of growth of the sale of tractors in India was 10.5%.[5]

Access to Land and Rural Diversification

Land is by far the most important form of asset owned by rural households in India. The economic well-being of a household in an agrarian economy was crucially linked to ownership of land. Ownership of land was an important determinant of the location of a household in the system of agrarian relations. In an agrarian economy, whether workers in a household sell their labor power or deploy it in their own household enterprise depends crucially on the extent to which they have access to various means of production and, most importantly, access to land. De Janvry et al. (2005) observed that land was negatively related with non-farm income and positively related with farm income. The proportion of workers engaged in non-farm activities was higher among landless households.

Basant (1993) tried to examine the determinants of RNFE by drawing from the primary data collected from 30 villages in five districts (Vadodara, Bhavnagar, Mehasana, Panchmahals, and Valsad) of Gujarat. The study found that the proportion of non-farm employment was higher in the villages reporting a larger proportion of landless households, implying that landlessness was one of the important correlates of households having their main source income in non-farm activities. It was also observed that access to land provided more possibilities of diversification. From the ongoing analysis, one could clearly observe that the relationship between RNFE and land ownership was a U-shaped curve where RNFE was found to be higher among the very poor or the landless and also among those having land and better economic status. Of course, the motivations as well as the outcomes across the two sets of households varied significantly.

Ghuman (2005), based on a study of three villages in Punjab, reported that non-farm employment of agricultural households was half of that of households which had a non-agricultural background. The author further noted that "higher proportion of marginal landholders joining non-farm sector may be because of the reason that they are neither able to earn enough from land nor find year-round employment on land" (Ghuman 2005). In Punjab, what we have observed is an increasing concentration of operational holding among richer households, which has resulted in increasing land alienation for the economically vulnerable groups.

While rising land fragmentation is responsible for falling employment opportunities in agriculture, an increasing concentration of landholdings can also indirectly contribute to a decline in overall labor absorption (that is, not only reduce levels of self-employment in agriculture but also reduce

levels of wage employment generated in agriculture) as, for a given cropping pattern, large landowners tend to deploy labor-displacing technology to a greater extent. As Rawal and Saha (forthcoming) noted, "greater adoption of labor displacing technology (in particular, increasing use of machines and weedicides), caused by increasing concentration of landholdings and increasing cost advantage of using labor displacing techniques among other factors, is likely to have been an important factor behind the decline in overall level of labor absorption in agriculture".

If we do a State-level analysis of the proportion of rural households not cultivating any land and the proportion of rural non-farm workers, we observe that generally States with a higher proportion of rural households not cultivating any land also had a higher proportion of rural non-farm workers.[6] For the country as a whole, the proportion of rural households not cultivating any land increased from 35.4% in 1987–88 to 48.5% in 2011–12 (Rawal 2013). Therefore, lack of access to land was an important factor responsible for participation in RNFE. There was a decline in the proportion of rural households cultivating land and it was a phenomenon experienced by all major States (Rawal 2013). If we plot a simple scatter diagram of the proportion of rural households not cultivating any land (Rawal 2013) and the proportion of rural non-farm workers for the two periods considered here (1999–2000 and 2011–12), then we observe a positive correlation between the two as depicted in the following two diagrams (Figs. 7.1 and 7.2).

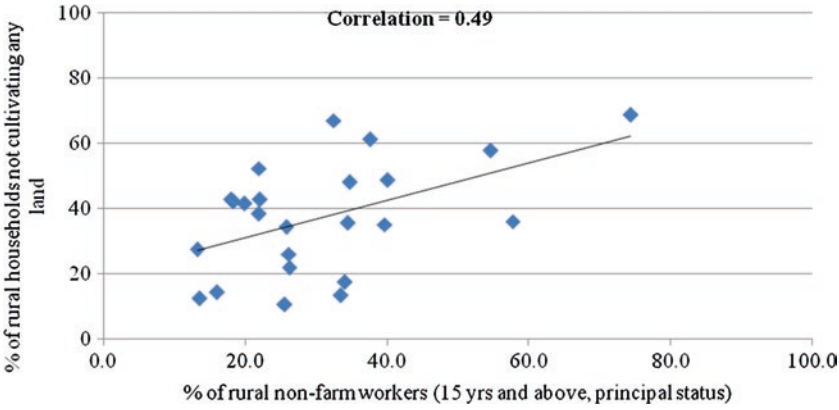

Fig. 7.1 Proportion of rural households not cultivating any land and proportion of rural non-farm workers, by major state, 1999–2000

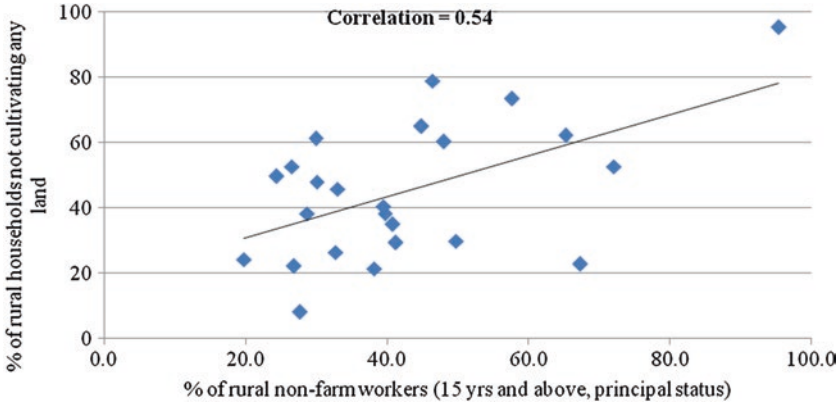

Fig. 7.2 Proportion of rural households not cultivating any land and proportion of rural non-farm workers, by major state, 2011–12

MGNREGA and Impact on Rural Livelihood

The MGNREGA of 2005 has generated lot of interest among policy makers and researchers, both within and outside India, and often is cited as the largest social security program in the world, benefiting around 50 million rural households every year since 2008 (that is, since the time it was universalized).

Despite several shortcomings pointed out in the literature regarding implementation, this program did have a positive impact in terms of providing livelihood security and empowerment of the poor. The issue of empowerment of the poor through MGNREGA can be verified from the fact that in several places (among these four States) "rural workers have negotiated with private employers, even refusing casual work at double the earlier wage" (Mathur 2007).

In India, it is the Scheduled Castes (SCs) and Scheduled Tribes (STs) among whom the incidence of poverty is higher than other social groups.[7] The desperation for better livelihood options among the marginalized can be gauged by the fact that SCs and STs have accounted for 30% and 25% of total person days worked in this program, respectively (MoRD 2012). This is clearly much higher than their population shares, which were 16.6% and 8.6% for SCs and STs, respectively (Census of India 2011).

The job card is the most important document of this entire program, and job card number has to be mentioned while demanding work. It maintains a record of days of employment and payment received by all the members of the household who participated in this program. Within a span of three years, 56.5 million households in rural India (35%) had job cards by the year 2009–10, which is a testimony to its positive feedback from the rural population.[8] The latest round of employment and unemployment surveys indicated an increase in the proportion of households with job cards. If we consider the proportion of households which had job cards within a specific social group, we find that the proportion of households with job cards was the highest among ST households (57.2%) followed by SC households (50%).

The self-selection criteria of this program ensured that those in need of employment and willing to undertake manual labor will benefit from this program. In India, economic deprivation is most pronounced among SCs and STs. Therefore, it is not surprising that SCs and STs constituted the bulk of the households that got MGNREGA work. Almost half of the households that got work under MGNREGA belonged to either SC or ST social groups. Also, the fact that 40% of ST households and one third of SC households got employment implies that this program has been reasonably successful in reaching out to the marginalized sections of the rural population.

Enhancement of household income in rural areas through more days of employment is the hallmark of MGNREGA. There is an ongoing debate in the country regarding advantages and disadvantages of an employment-generation program like MGNREGA. Although that debate is beyond the scope of this chapter, it may be pertinent to mention here that through universal demand-driven programs like MGNREGA, the government can actually influence the rural labor market indirectly through greater empowerment to the workers and increasing the bargaining power of the workers vis-à-vis their employers. Studies have pointed out that MGNREGA has raised the market wage rate in agriculture, resulting in an increase in cost of production. The recent rise in agricultural wages has been principally attributed to MGNREGA. Although this might be the case as suggested in various micro-level studies (Haque 2012), wages in MGNREGA are lower than agricultural wages in most of the regions in India. An analysis of NSS 66th Round data (2009–10) revealed that in 70% of the regions in rural India, agricultural wages were higher than MGNREGA wages. The regions where MGNREGA wages were higher than agricultural wages

were mostly the regions with low agricultural productivity and low levels of human development achievements (Uttar Pradesh, Jharkhand, Orissa, Bihar, Chhattisgarh, and Madhya Pradesh).

Summing Up

This study has been undertaken in order to try to arrive at some broad conclusions across space regarding the factors that influences growth and development of the rural non-farm sector and its consequences on overall rural livelihoods. This study is primarily based on Employment and Unemployment Surveys conducted by the NSSO for the years 1999–2000 and 2011–12. In addition to consulting employment and unemployment surveys, this study takes into account All India Debt and Investment Surveys for the years 2002–3 and 2012–13, which were also conducted by the NSSO.

Overall, there has been a significant increase in RNFE over the years (12% in 12 years). This shift from agriculture to non-agriculture has happened across all asset deciles in rural India and was much more pronounced among poorer households. More specifically, the shift happened among poorer households from agriculture toward non-agricultural wage employment (and away from self-employment). Thus, even though the shift away from agriculture was happening across all asset groups, it was by and large distress-driven.

The biggest increase in non-agricultural employment has been in the construction sector, where the share of non-farm employment increased from 14.4% in 1999–2000 to 30.1% in 2011–12. This high proportion of workers going into the construction sector as casual wage workers led to an overall decline in self-employment and a rise in casual wage employment in the rural non-farm sector. In terms of size of enterprise, by and large, there has been a shift in RNFE toward larger enterprises. However, the construction sector, which has experienced unprecedented growth in employment, experienced a decline in the share of workers employed in enterprises employing 10 or more workers.

The majority of workers joining the construction industry as casual wage workers had low educational attainment. In fact, low educational level remained a major challenge for the rural non-farm sector, particularly when the non-farm sector is supposed to provide productive and decent employment opportunities. This was a bigger challenge in terms of providing decent employment for the construction sector, which was the

largest growing sector, and particularly so when it accounted for 44% of all illiterate workers in the rural non-farm sector. Lower educational attainment was one of the reasons for scarcity of skilled manpower. Even this limited skilled manpower was heavily concentrated in the service sector. The service sector provided greater employment opportunities for the better-educated workers. In other words, the construction sector, which was the fastest growing in terms of RNFE, was creating jobs that required no technical knowledge.

Large-scale mechanization of agriculture resulted in large-scale displacement of workers from the farm sector into non-farm sources of income. Access to land was an important determinant of this shift from agriculture to non-agriculture. State-level analysis of the proportion of rural households not cultivating any land and the proportion of rural non-farm workers indicated that generally States with a higher proportion of rural households not cultivating any land also had a higher proportion of rural non-farm workers.

Categorization of the rural non-farm sector as "residual" does not seem to hold much water given its growing importance in rural employment generation and its positive impact in reducing poverty and inequality (as pointed out in several studies). RNFE has been considered an important vehicle for reduction of unemployment and consequently of poverty not only in India but in other parts of Asia, Africa, and Latin America. In India, growth of RNFE resulted in improved rural wages and was one of the main factors for reducing rural poverty during the 1980s (Dev 2002). The major constraints inhibiting non-farm employment were limited access to formal credit, low level of skill development, access to market, and persistent inequality in ownership of different kinds of assets. Also, sluggish growth of agricultural sector played a dampening role on demand for goods produced in the non-farm sector. Increasing public expenditure in rural infrastructure and expenditure on rural employment programs are important to boost RNFE.

The magnitude with which workers are shifting out of agriculture even in agriculturally advanced States and the fact that it is among poorer households where this shift is mostly taking place do suggest that rural India is undergoing a distress shift toward non-farm employment. Most of the jobs created are casual in nature, which supports the argument that casualization that is taking place in India is distress-driven.

It is in this context of the overall scenario of the rural labor market that MGNREGA assumes significance in providing social protection, asset

creation, and empowering the poor. In India, the economic deprivation is most pronounced among SCs and STs. Therefore, it is not surprising that SCs and STs constituted the bulk of the households that got MGNREGA work. Almost half of the households that got work under MGNREGA belonged to either SC or ST social groups. Across States, performance of MGNREGA has varied considerably. While some of the economically weaker States like Rajasthan, Madhya Pradesh, and Chhattisgarh were better performers in this regard (which is a positive thing), other economically backward States like Bihar, Jharkhand, and Orissa were lagging behind. In addition to an increase in days of employment, a very significant impact of MGNREGA has been in an overall rise in rural wages, thereby resulting in improvement of consumption among poorer households.

Apart from the casualization of workforce, a crucial point to note in this analysis is the uneven pattern of sectoral growth which heavily tilted toward the construction sector. In a situation where other sectors of the economy are languishing in terms of growth, the extent to which the construction sector can sustain its growth trajectory is an important question to deal with. In the event of stagnation or slowing down of construction sector growth, its adverse implications will definitely be felt in employment generation. There is a need for greater diversification of economic activity for growth to be sustainable along with the creation of decent work opportunities.

The broad story that emerged from this analysis is that of a significant shift toward non-farm employment in rural areas, and this shift happened predominantly among economically weaker sections of the rural society. Access to land was an important determinant in this process of diversification. Rural employment programs like MGNREGA play a vital role in providing safety nets during this process of occupational shift, which has largely been distress-driven.

Notes

1. During the 11th Plan period, the construction sector witnessed an average annual growth rate of 7.7%, whereas during the 12th Plan period, the growth rate was 9.1% on an average annual basis (https://data.gov.in/resources/annual-growth-rate-gdp-industry-origin-constant-2004-2005-prices/download, assessed September 26, 2016).

2. Casualization of the rural non-farm workforce has taken place among both male and female workers. Increasing casualization of the workforce has been the outcome of deflationary economic policies pursued in India since 1991, agricultural stagnation (which itself has been the outcome of deflationary policies), and opening up of to foreign competition (Patnaik 2006). Various micro-level studies have pointed out that increasing casualization of the rural workforce can be attributed to "large enterprises in organized sector being subject to workforce retrenchment, output subcontracting, and substantial job loss occurring in traditional areas like hand-woven and power-loom woven textiles where escalating costs under liberalization and reforms have forced closures, and desperate search of casual work by women" (Patnaik 2006).
3. With high employment growth, employment opportunities have increased, but there exists a huge shortage of skilled workers. Shortage exists at two levels: shortage of (i) persons trained and (ii) persons trained who do not possess the required skill. Out-dated syllabus of Industrial Training Institutes, mismatch between training and job requirement, and ineffective apprenticeship training system are some of the reasons mentioned in the literature for the shortage of skilled workers in the country (Mehrotra 2014).
4. The correlations between rural unemployment rate by current daily status and rural non-farm employment were found to be 0.52 in 1999–2000 and 0.32 in 2011–12. This, to some extent, indicated that rural non-farm employment was slowly fading out to be of residual form (implying a push factor from agriculture) and seemed to be gaining prominence in rural economy.
5. Annual Report, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, various years.
6. The correlation coefficients between proportion of households not cultivating any land and proportion of rural non-farm workers at the State level were found to be 0.54 for the year 2011–12 and 0.49 for the year 1999–2000.
7. In rural India during 2011–12, the incidence of poverty among SC population was 31.5% and that among ST population was 45.3%. The incidence of poverty among OBCs was 22.7%, while among forward castes it was 15.5% (Panagariya and More 2013).
8. The number of job cards issued by the year 2012 was 120 million (MoRD 2012).

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CHAPTER 8

Expanding Livelihood Strategies for Marginalized Communities in India: Opportunities and Challenges

Partha Pratim Sahu

Introduction

Efforts toward achieving inclusive growth have been seriously challenged as some sections of society are either being left out of or not being able to gain adequately from the growth process. Social group identity (caste) plays an important role in shaping social and economic outcomes. In Indian society, the scheduled castes (SCs) and scheduled tribes (STs) are mostly viewed as socially and economically underprivileged groups. These groups suffer from multiple forms of discrimination and deprivation in terms of their access to crucial markets (that is, land, labor, and credit and also various outcomes relating to food, health, education, housing, basic amenities, and so on). They also often live in some of the poorest and most backward regions of the country, including areas severely affected by internal conflict and violence. Although there are several strands of protective and affirmative policies in place to alleviate and moderate discrimination against specific groups, negative discrimination against lower castes continues to exist and some of them are even aggravated. There is

P.P. Sahu (✉)
National Institute of Rural Development and Panchayati Raj, Hyderabad, India

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voluminous literature on social and economic discrimination or social exclusion (or both) contributing to the understanding of these facets. But the role of caste-based differences in ownership of private business economy has remained one of the most understudied areas in the context of India. To mainstream these disadvantaged groups into the growth process and thus make it more inclusive has been the key challenge for policy makers. Given the increasingly shrinking livelihood space for the SCs and STs, this chapter attempts to unfold the possibility of expanding livelihood opportunities for these sections in the private business economy. The chapter makes an attempt at mapping out private enterprise ownership, drawing on data from the unorganized manufacturing sector (1994–95), All India Census of Small-Scale Industries (2000–01 and 2006–07), and Unincorporated Non-Agricultural Enterprises Survey (2010–11),[1] and highlights the characteristics of the entrepreneurship by social groups, given the limitations of each data set. It departs from the existing literature on the issue by an expanded empirical framework including data from more than one source, unlike the previous studies, which are based on only one data source, largely the Economic Census. We have focused here mainly on caste-based exclusion, especially of the SCs, and of STs. This chapter obtains some interesting results which have important policy implications. The analysis also opens up a rich research agenda, including further investigation of various issues to better understand the continuing discrimination and exclusion of certain groups.

There are a large number of recent studies providing a detailed and incisive account of these groups being excluded from the growth process and suffering from multiple deprivations in terms of various outcomes relating to food, health, education, housing, and basic amenities (IAMR-Planning Commission 2011; World Bank 2011; Desai and Dubey 2011; Thorat and Dubey 2012). Findings of these studies indicate hardly any improvement in the well-being of these groups during last two to three decades. Although the growing literature on social and economic discrimination or social exclusion (or both) has contributed to the understanding of its various facets, inadequate attention is being paid to the role of caste-based differences in ownership of private enterprises in the relative deprivation of SCs and STs and other lower-caste groups. Several individual and household characteristics and institutions (including those related to religious practices, laws and regulations, and property rights) play a crucial role in impeding or empowering these groups to participate in private business economy. However, owing in part to the non-availability of relevant data, these issues have remained mostly understudied.

Our Data Set and Limitations

Enumeration and compilation of data on enterprises of different sizes and operating in different locales are being undertaken by various government agencies in India, such as the National Sample Survey Office (NSSO), the Central Statistical Office (CSO), and the Development Commissioner of Small-Scale Industries (DCSSI) under the Ministry of Micro, Small and Medium Enterprises (Ministry of MSME). As far as the All India Census of MSMEs is concerned, it covers registered and unregistered enterprises (of different sizes, based on the criteria of investment in plant and machinery) through both census and sample survey, respectively. It also covers both manufacturing and service sector enterprises. In addition, of late, industry associations such as the Dalit Indian Chamber of Commerce and Industry (DICCI),[2] the Federation of Indian Chambers of Commerce and Industry (FICCI), the Confederation of Indian Industry (CII), and the Associated Chambers of Commerce and Industry of India (ASSOCHAM) have shown interest in compiling statistics on participation by backward and disadvantageous castes in India's private business economy and integrating them into the mainstream business.

While it is true that the existing data sets have not adequately been explored by researchers, these are not free from limitations either. First, there are differences in terms of their scope, coverage, operational concepts, definitions, and sampling framework, making inter-temporal and inter-sectoral (within as well as across data sources) comparisons difficult. Second, the available information is inadequate and limited to very few characteristics and provides no clue about many important aspects of dalit entrepreneurship, such as motivations for starting a business; whether these businesses are ancestral or new; how the enterprise was started; and financial, technological, and marketing constraints these entrepreneurs face while starting a new or running an existing business.

While the surveys on All India Census of Small-Scale Industries and the NSSO survey on un-incorporated non-agricultural enterprises do provide both a set of economic data and a range of enterprise and entrepreneur characteristics, these survey data are not forthcoming at regular intervals and important information relating to education and training background of owners (and workers), wage to workers, input costs, profit, and so on is not yet included in the surveys. Furthermore, the correspondence and matching of concepts and sectors and the coverage of data from different sources to relate different variables with each other are largely missing.

Greater symmetry in this respect needs to be ensured among different data sources. Availability of systematic data with definite periodicity has been a serious concern and thus the practices in organization and conduct of various surveys need to be more comprehensive and inclusive.

The chapter has been organized in eight sections. Section "Introduction" introduces the broad issues of discussion, and section "Our Data Set and Limitations" outlines the data sources and their advantages and limitations. Section "Issues, Reviews, and Policies" discusses the issues and policies related to participation of SCs and STs in private business economy. Sections "The Aggregate Scenario", "Analysis Based on All India Census of SSI Data, 2001–02", and "Analysis Based on Non-agricultural Enterprises, 2010–11" analyze the industry-wise pattern of participation of SCs and STs in private business, based on alternative data sources. Section "Performance Differences" briefly ponders the performance difference among enterprises owned by various social groups. Section "Concluding Remarks" concludes the chapter while presenting its key findings along with a series of issues which need further probing.

Issues, Reviews, and Policies

The SCs and STs together account for a quarter of India's population. Whereas between 1991 and 2001 there was no change in their share, the latest available census estimate indicates a rise. The share of SC and ST population increased from 24.6 in 1991 to 25.2 in 2011. These groups are more concentrated in rural areas. SC and ST populations often live in some of the poorest and most backward regions of the country, including areas severely affected by internal conflict and violence.

So that equal opportunities are provided to all of its citizens in social, political, and economic spheres, various provisions have been made in the Constitution of India. In addition, there are policies, initiatives, and preferential treatments to overcome institutionalized caste-based deprivations. These policies include reservation in jobs and access to higher education and exclusive or subsidized allocation of resources and benefits. One may argue that, over the years, some sections of the tribal population might have benefited from various policies and witnessed some improvements in their situation, but various forms of discrimination and relative deprivation continue in our society. Moreover, we could have new disadvantageous castes emerging as dominant in several pockets of rural India. Recent studies extensively document various dimensions of

discrimination and exclusion in land, job, credit, health, education, housing, basic amenities, and other public services (World Bank 2011; Harriss-White and Prakash 2010, Thorat 2002; Desai and Dubey 2011; Papola 2012; Pal 2016; Kumar 2013).

Several researchers have attempted to understand the process and factors that block or resist business participation by specific communities (Harriss-White et al. 2014; Deshpande and Sharma 2013, 2015; Vidyarthee 2011, 2015; Iyer et al. 2013; Kapur et al. 2014; Mamgain 2014; Thorat and Sadana 2009; Thorat et al. 2010). Urbanization, education, assets (landholdings), social networks, access to information, and so on have been used as explanatory variables to explain dalit participation in private business economy (Murphy 2006[3] as cited in Harriss-White and Vidyarthee 2010). SCs and STs are often constrained from starting a new business by limited resources, inadequate entrepreneurial abilities, and lack of social networks, and most of them end up in activities similar to their family/parental business (Jodhka 2010).[4] Marketing obstacles further restrict the possibility to start up a new venture or scale up the existing ones or both. Limited participation in business activities also obstructs the possibilities of skill formation and upward mobility. All of these factors offer a substantive basis for policy recommendations.

India has a long history of state-led policies and programs to support and promote the industrial sector in general and the small enterprises sector in particular. These policies include fiscal and tax incentives, credit and financial incentives such as priority sector lending, grants and subsidies, and infrastructure assistance in the form of industrial estates and promotion of industrial clusters. Besides these, the Government of India has schemes for entrepreneurial and managerial development, marketing support, export promotion, skill development, and technology up-gradation programs.[5] Specifically, to promote entrepreneurship, there is an elaborate institutional setup with various programs toward skill development, vocational education, and training. For instance, an entrepreneurship development scheme is currently being developed by the Ministry of Skill Development and Entrepreneurship to educate and equip potential and early-stage entrepreneurs across India; to connect entrepreneurs to peers, mentors, and incubators; to support entrepreneurs through Entrepreneurship Hubs; to catalyze a culture shift to encourage entrepreneurship; to encourage entrepreneurship among under-represented groups; to promote entrepreneurship among women; and to foster social entrepreneurship and grassroots innovations (Govt. of India 2015). The Rajiv Gandhi Udyami Mitra Yojana (RGUMY) (under the Ministry of MSME) aims to provide handholding

support and assistance to potential first-generation entrepreneurs. It also provides assistance to deal with various procedural and legal hurdles and various formalities required for setting up a new or running an existing enterprise. Many of the entrepreneurship development and training programs are tailor-made for the target groups, such as SCs and STs. These programs are also specially conducted in rural/less developed areas, and no fees are charged from SCs and STs.

In addition, there are several employment generation and anti-poverty programs initiated by the State and Central Government to promote self-employment and entrepreneurship through provision of assets, skills, and other support to the unemployed and the poor. In many of these programs, like Prime Minister's Rozgar Yojana (PMRY), Swarnjaynti Gram Swarojgar Yojana (SGSY), and Swarna Jaynti Shahari Rozgar Yojana (SJSRY), a specific share of the total target is exclusively earmarked for SCs and STs. The Ministry of Social Justice and Empowerment, and the Ministry of Tribal Affairs also administer various programs and schemes to support and supplement the efforts of other Central Ministries, the State Governments and voluntary organizations towards economic upliftment of SCs and STs.[6] And at the state level, many initiatives, such as providing free plots, loans at subsidized interest rates, relaxations in lending norms for term loans, providing training programs, and so on, are undertaken to empower entrepreneurs from the SC and ST communities. A large private corporate sector, as part of Corporate Social Responsibility (CSR), has envisaged steps for the creation of entrepreneurs from SCs and STs (FICCI 2006; CII-ASSOCHAM 2007). These include maintaining a database of entrepreneurs belonging to SCs and STs; providing mentoring in quality control, productivity, and cost standards; ensuring greater access to capital; facilitating business partnership with enterprises owned and promoted by SCs and STs; and collaborating with the Small Industries Development Bank of India (SIDBI) and the National Bank for Agriculture and Rural Development (NABARD) to create entrepreneurs from SCs and STs. Thus, various government ministries and industry associations have been endeavoring to improve their participation in business, but there is no evidence of any visible improvement. However, no systematic evaluation of these policies and provisions has been undertaken.

The Aggregate Scenario

More than one data source provides information on business ownership by social groups. But irrespective of data sources, SCs and STs own a disproportionately low share (as compared with their population weight) and their share has not shown any increase over the years. SC and ST participation in unorganized service enterprises are higher as compared with manufacturing enterprises. In 2006–07, about 16.20% and 3.50% of unorganized service enterprises were owned by SCs and STs, respectively. The latest available enterprise survey (2010–11) indicates that SCs and STs respectively own 13.40% and 4.00% of un-incorporated non-agricultural enterprises, which includes both manufacturing and service enterprises (Table 8.1).

Table 8.1 Proportion of enterprises owned by various social groups (percentage): Alternative data sources

	Percentage share in total population				
	Survey Year	*SCs*	*STs*	*SCs + STs*	*Others**
1	*2*	*3*	*4*	*5 = 3+4*	*6*
Percentage share in total population	2011 Census	16.60	8.60	25.20	74.80
Segment/Data Sources	Percentage of enterprises owned by				
Economic Census, CSO	1980	8.67	2.55	11.22	88.78
	1990	9.00	2.85	11.85	88.15
	1998	7.69	3.97	11.66	88.34
	2005	8.82	3.64	12.46	87.54
Unorganized manufacturing, NSSO	1994–95	19.81	9.24	29.05	70.95
Unorganized services, NSSO	2001–02	16.10	2.60	18.70	81.30
	2006–07	16.20	3.50	19.70	80.20
All India Census of Small-Scale Industries, DCMSME	1987–88	6.84	1.70	8.54	91.46
	2001–02	10.00	4.97	14.97	85.04
	2006–07	11.27	5.09	16.37	83.63
Un-incorporated non-agricultural enterprises, NSSO	2010–11	13.40	4.00	17.40	82.60

Source: Author's own compilations based on NSSO 1998, 2003, 2009, 2012; DCSSI 1992, 2004; DCMSME 2011a, b; CSO 2001, 2006

Note: (i) Others include Other Backward Classes (OBCs) and all other castes

(ii) The "not recorded cases" have been excluded from the analysis

SC and ST Ownership Pattern by Type of Enterprise, 1994–95

About 30% of unorganized household enterprises[7] were owned by SCs and STs together. SCs owned 22.05%, 7.18%, and 6.18% of enterprises in OAMEs, NDMEs, and DMEs[8], respectively. It implies that the proportion of SC-owned enterprises declines as we move in the scale ladder from tiny to big enterprises. The scale disadvantages operate in both rural and urban areas and also holds true for STs as well. STs owned about 11% in OAMEs and 2% each of NDMEs and DMEs (Table 8.2 and Fig. 8.1). A significantly large proportion of SC- and ST-owned enterprises were located in rural areas and were of the tiniest size (that is, OAMEs). Most of these OAMEs also operate inside the household premises and lead to all kinds of problems arising from conflict between workplace and living place. These groups find it difficult to start big enterprises and also to

Table 8.2 Distribution of household enterprises by social group of the owner: 1994–95

Type and location	*Percentage of enterprises owned by*			*Distribution across type and location*		
	SCs	*STs*	*Others*	*SCs*	*STs*	*Others*
1	*2*	*3*	*4*	*5*	*6*	*7*
OAMEs						
Rural	24.13	12.86	63.01	80.86	92.40	58.97
Urban	14.72	2.40	82.88	14.00	4.89	22.00
Total	22.05	10.55	67.40	94.86	97.30	80.97
NDMEs						
Rural	9.98	2.84	87.18	2.19	1.34	5.34
Urban	5.25	0.83	93.91	1.67	0.57	8.35
Total	7.18	1.65	91.17	3.86	1.90	13.69
DMEs						
Rural	8.69	3.51	87.79	0.84	0.73	2.36
Urban	4.01	0.31	95.69	0.45	0.07	2.98
Total	6.18	1.79	92.03	1.28	0.80	5.34
All						
Rural	22.88	12.02	65.11	83.88	94.46	66.66
Urban	11.67	1.87	86.46	16.12	5.54	33.34
Total	19.81	9.24	70.95	100.00	100.00	100.00

Source: Author's own estimates based on unit-level data on the unorganized manufacturing sector, 1994–95

Note: Others include OBCs and other general/higher castes

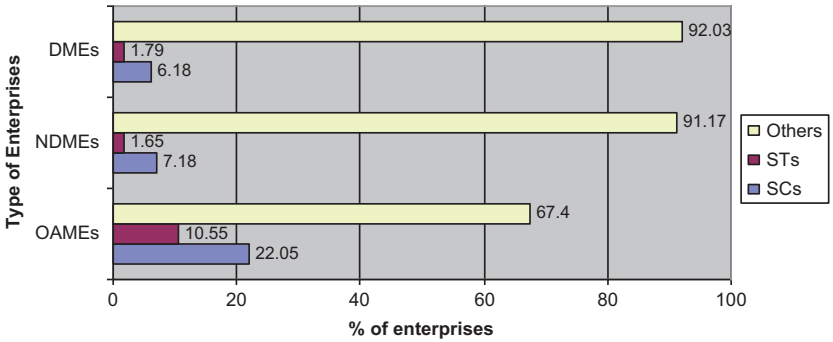

Fig. 8.1 Ownership pattern across social groups by type of enterprise in the unorganized manufacturing sector: 1994–95 NSS data

scale up their existing busiess as the problems of access to capital, skill, and training, market and lack of entrepreneurial abilities are acute as compared to general caste entrepreneurs.

Industry-Wise Analysis: NSS Data

The share of enterprises owned by SCs and STs also vary significantly across industry groups. An analysis at the two-digit level of industrial classification suggests that, in leather, wood products, jute products, wearing apparel, and repair services, the share of SC-owned enterprises was high but that, in beverages and tobacco, wood products, wearing apparel, and basic metal and alloys, that of STs was high (Table 8.3). Enterprises in leather and its products were largely owned and managed by SCs, but their presence across type of enterprise varied significantly; SCs own 90%, 47%, and 29% of leather-manufacturing units in OAME, NDME, and DME segments, respectively.

So it is interesting to note that as the scale of operation increases, the share of enterprises owned by SCs decreases. It also seems that SCs move in product lines of their hereditary occupations. In every industry group, the share of SC-owned enterprises was high as compared with that of STs, irrespective of type and location of enterprises (Table 8.3). The SC- and ST-owned enterprises were limited to very few select manufacturing activities in the unorganized manufacturing sector. Moreover, those enterprises were largely in traditional industry groups where the production process is

Table 8.3 Top five industry groups in terms of share of enterprises owned by SCs and STs

Type and locale of enterprises	*NIC*	*Description*	*Share of SC-owned enterprises*	*NIC*	*Description*	*Share of ST-owned enterprises*
1	*2*	*3*	*4*	*5*	*6*	*7*
OAMEs	29	Leather and products of leather	88.22	38	Other manufacturing industries	34.59
	27	Wood and wood products	35.16	22	Beverages and tobacco	19.60
	37	Transport equipment and parts	27.28	27	Wood and wood products	13.47
	25	Jute and other vegetable fibre textiles	26.54	33	Basic metal and alloys industries	10.90
	97	Repair services	23.96	26	Textile and its products	9.45
NDMEs	29	Leather and products of leather	46.94	22	Beverages and tobacco	4.13
	26	Textile and its products	18.65	32	Non-metallic mineral products	3.33
	31	Rubber, plastic, petroleum, and coal products	12.77	26	Textile and its products	2.80
	32	Non-metallic mineral products	9.68	20	Food and food products	2.43
	23	Cotton and related products	9.49	27	Wood and wood products	2.29
DMEs	29	Leather and products of leather	28.72	22	Beverages and tobacco	9.35
	32	Non-metallic mineral products	10.71	27	Wood and wood products	6.47
	22	Beverages and tobacco	10.61	32	Non-metallic mineral products	4.19
	23	Cotton and related products	9.89	97	Repair services	1.31
	26	Textile and its products	9.29	39	Repair of capital goods	0.95

Rural	29	Leather and products of leather	93.47	38	Other manufacturing industries	51.08
	27	Wood and wood products	34.69	33	Basic metal and alloys industries	24.00
	97	Repair services	28.75	22	Beverages and tobacco	22.75
	36	Machinery and non-machinery parts	28.11	27	Wood and wood products	13.85
	26	Textile and its products	23.89	26	Textile and its products	10.26
Urban	29	Leather and products of leather	60.03	27	Wood and wood products	6.11
	27	Wood and wood products	24.75	32	Non-metallic mineral products	3.98
	30	Basic chemicals and chemical products	19.09	39	Repair of capital goods	3.49
	37	Transport equipment and parts	14.30	22	Beverages and tobacco	2.50
	97	Repair services	13.47	33	Basic metal and alloys industries	2.36

Source: Author's own estimates based on unit-level data on unorganized manufacturing sector, 1994–95

Note: Industry codes and description are based on National Industrial Classification (NIC) 1987

highly labor-intensive. Their presence in capital-intensive/non-agro-based industry groups is negligible, as to start an enterprise in these sectors seems to require a high degree of skill and training and also a bigger amount of investment. There are also significant rural-urban variations. Even within the same product line, the shares of SC- and ST-owned enterprises were higher in rural areas as compared with urban areas. The urban areas seem to pose a greater degree of entry barriers for the tribal entrepreneurs. Both scale and locational attributes thus operate adversely for these groups to participate in private business economy.

The industry-wise distribution of SC- and ST-owned enterprises was highly skewed and uneven across industry groups with a few of those accounting for a disproportionate share of it (Table 8.4). Four or five industry groups such as wood and wood products, beverages and tobacco, textile products and wearing apparels, and repair services accounted for more than 70% in each category. This pattern holds true not only in rural and urban areas but also for three segments of unorganized manufacturing sector (that is, OAMEs, NDMEs, and DMEs). But the concentration of ST-owned enterprises was more skewed than that of SC-owned enterprises.

Of the top five industry groups (in terms of incidence as well as weight of tribal entrepreneurship), about three are common for both SCs and STs. But in addition to caste, factors such as education, household net income, parental entrepreneurship, and inter-generational business links are crucial determinants of the incidence and pattern of entrepreneurship among SCs and STs. There is a need to make an effort in understanding some of these processes that compel these groups to operate at a lower scale and in limited product groups.

Analysis Based on All India Census of SSI Data, 2001–02

According to the DCSSI data, at the aggregate level, during 2002–07, the share of SC- and ST-owned enterprises remained almost same in registered segment but declined in unregistered segment. It is important to look at the dis-aggregate level by major industry groups at the two-digit level of industrial classification. Table 8 presents information on ownership pattern by SCs and STs in top five manufacturing and service activities for the period of 2001–02. In registered segment, in leather and its products, 62% of enterprises were owned by SCs; in activities relating to

Table 8.4 Industry-wise distribution of SC- and ST-owned enterprises (percentage): Top five

Type and locale of enterprises	*NIC*	*Description*	*Share of industry in total SC-owned enterprises*	*NIC*	*Description*	*Share of industry in total ST-owned enterprises*
1	*2*	*3*	*4*	*5*	*6*	*7*
OAMEs	27	Wood and wood products	34.68	27	Wood and wood products	27.77
	97	Repair services	13.52	38	Other manufacturing industries	27.70
	22	Beverages and tobacco	7.96	22	Beverages and tobacco	19.57
	26	Textile and textile products	7.22	26	Textile and textile products	6.74
	20	Food and food products	6.06	20	Food and food products	3.95
	Total of top five		69.45	Total of top five		85.74
	All Total		100.00	All Total		100.00
NDMEs	26	Textile and textile products	16.47	20	Food and food products	26.26
	97	Repair services	14.87	27	Wood and wood products	16.09
	27	Wood and wood products	14.75	97	Repair services	14.90
	20	Food and food products	10.80	26	Textile and textile products	10.75
	29	Leather and products of leather	10.48	22	Beverages and tobacco	8.30
	Total of top five		67.37	Total of top five		76.30
	All total		100.00	All Total		100.00
DMEs	26	Textile and textile products	18.26	22	Beverages and tobacco	45.66
	22	Beverages and tobacco	15.03	27	Wood and wood products	19.09
	32	Non-metallic mineral products	13.18	32	Non-metallic mineral products	17.78
	23	Cotton and related products	11.72	26	Textile and textile products	4.54
	29	Leather and products of leather	10.46	20	Food and food products	3.31
	Total of top five		68.65	Total of top five		90.38
	All Total		100.00	All Total		100.00

(*continued*)

Table 8.4 (continued)

Type and locale of enterprises	*NIC*	*Description*	*Share of industry in total SC-owned enterprises*	*NIC*	*Description*	*Share of industry in total ST-owned enterprises*
1	*2*	*3*	*4*	*5*	*6*	*7*
Rural	27	Wood and wood products	35.52	38	Other manufacturing industries	28.10
	97	Repair services	10.78	27	Wood and wood products	27.00
	26	Textile and textile products	8.56	22	Beverages and tobacco	20.15
	22	Beverages and tobacco	8.14	26	Textile and textile products	7.00
	20	Food and food products	6.50	20	Food and food products	4.30
	Total of top five		69.50	Total of top five		86.55
	All Total		100.00	All Total		100.00
Urban	97	Repair services	27.12	27	Wood and wood products	35.53
	27	Wood and wood products	23.06	97	Repair services	14.71
	29	Leather and products of leather	11.32	22	Beverages and tobacco	9.55
	22	Beverages and tobacco	6.11	38	Other manufacturing industries	7.76
	38	Other manufacturing industries	5.79	32	Non-metallic mineral products	5.78
	Total of top five		73.40	Total of top five		73.33
	All Total		100.00	All Total		100.00

Source: The same as in Table 3

Note: Industry codes and description are based on National Industrial Classification (NIC) 1987

wearing apparel and retail trade, they own a little more than 10%. Of 36 two-digit industry groups, in as many as 28 industry groups the SCs owned less than 5% of total enterprises. In the case of STs, the situation is worse; in 32 activities, the share of ST-owned enterprises is less than 5%. In textile and its product, wood and its products, and posts and telecommunication, their share is a little higher than 5%. But sector-wise distribution reveals that leather, retail trade, wearing apparel, food and food products, and furniture accounted for more than 70% of SC-owned enterprises. In the case of STs, the same industry groups accounted for 60%. Although the distribution of ST-owned enterprises is less skewed, the shares of ST-owned enterprises are lower than that of SCs in the majority of the industry groups (Table 8.5).

In the unregistered small-scale industry (SSI) segment, the proportions of enterprises owned by SCs and STs are little higher as compared with registered SSI segment. Analysis at two-digit industry groups suggests that in 11 industry groups the share of SC-owned enterprises is more than 10% but that in another 10 industry groups the share lies between 5% and 10% and that in the remaining 15 industry groups their share is less than 5%. In the case of STs, only in three industry groups is their share more than 10% but in 5 and 28 industry groups their share is between 5% and 10% and less than 5%, respectively.

However, SC-owned enterprises are concentrated in activities relating to wearing apparel, land transport, food and its products, wood and its products, and leather. These industry groups together accounted for more than 60% of the total SC-owned enterprises. The ST-owned enterprises are also concentrated in very few product lines such as wood and its products, wearing apparel, food and its products, furniture, and land transport, which together accounted for more than 75% of SC-owned enterprises (Table 8.6).

It is interesting to note that SC and ST entrepreneurs operate in similar product lines in both registered and unregistered segments of the SSI sector; within top five industry groups, three are common in both these segments. Thus, both business penetration and diversification are limited for tribal entrepreneurs.

Table 8.5 Share of enterprises owned by SCs and STs: Top five industry groups

Segment of SSI sector	*NIC*	*Description*	*Share of SC-owned enterprises*	*NIC*	*Description*	*Share of ST-owned enterprises*
1	*2*	*3*	*4*	*5*	*6*	*7*
Registered SSI	19	Leather and leather products	62.25	17	Manufacture of textiles	7.39
	52	Retail trade and repair of personal and household goods	13.46	64	Post and telecommunications	6.51
	18	Wearing apparel; dressing and dyeing of fur	10.40	20	Wood and wood products	5.90
	17	Manufacture of textiles	9.33	18	Wearing apparel; dressing and dyeing of fur	5.35
	20	Wood and wood products	8.88	52	Retail trade and repair of personal and household goods	4.45
Unregistered SSI	19	Leather and leather products	70.34	20	Wood and wood products	23.80
	33	Manufacture of medical, precision and optical instruments, watches and clocks	22.22	27	Manufacture of basic metals	12.50
	20	Wood and wood products	20.58	36	Manufacture of furniture	10.48
	24	Chemicals and chemical products	14.62	23	Manufacture of coke, refined petroleum products and nuclear fuel	7.44
	17	Manufacture of textiles	14.35	40	Electricity, gas, steam and hot water supply	6.78

Source: Author's own estimates based on unit-level data on third All India Census on Small-Scale Industry: 2001–02

Note: Industry codes and description are based on National Industrial Classification (NIC) 1998

Table 8.6 Industry-wise distribution of SC- and ST-owned enterprises (percentage): Top five

Segment of SSI sector	*NIC*	*Description*	*Share of industry in total SC-owned enterprises*	*NIC*	*Description*	*Share of industry in total ST-owned enterprises*
1	*2*	*3*	*4*	*5*	*6*	*7*
Registered SSI	19	Leather and leather products	20.73	18	Wearing apparel; dressing and dyeing of fur	16.59
	52	Retail trade and repair of personal and household goods	18.75	52	Retail trade and repair of personal and household goods	13.79
	18	Wearing apparel; dressing and dyeing of fur	14.50	15	Food and beverages	11.22
	15	Food and beverages	6.33	17	Manufacture of textiles	9.99
	36	Manufacture of Furniture	6.11	36	Manufacture of Furniture	8.98
	Total of top five		66.42	Total of top five		60.57
	All Total		100.00	All Total		100.00
Unregistered SSI	18	Wearing apparel; dressing and dyeing of fur	19.73	20	Wood and wood products	23.13
	60	Land transport; transport via pipelines	17.03	18	Wearing apparel; dressing and dyeing of fur	16.62
	15	Food and beverages	10.87	15	Food and beverages	14.33
	20	Wood and wood products	10.11	36	Manufacture of furniture	11.97
	19	Leather and leather products	7.62	60	Land transport; transport via pipelines	11.29
	Total of top five		65.36	Total of top five		77.34
	All Total		100.00	All Total		100.00

Source: The same as in Table 5.

Note: Industry codes and description are based on National Industrial Classification (NIC) 1998

Analysis Based on Non-agricultural Enterprises, 2010–11[9]

Let us now turn to the latest available enterprise survey on un-incorporated non-agricultural enterprises (2010–11) data, which provide information on both manufacturing and service sector enterprises. In the rural own-account enterprise (OAE) segment, SCs and STs owned 16.50% and 6.54% of total enterprises. As far as the rural establishments are concerned, SCs and STs owned 8.16% and 4.23% of enterprises. As we move to urban areas, the shares of enterprises owned by SCs and STs are lower as compared with rural areas (Table 8.7). In the manufacturing segment, SCs and STs owned 17.17% and 7.43% of rural OAE enterprises. In bigger enterprises (that is, in the establishment segment), their proportions were 8.56% and 3.93%, respectively.

Let us now focus only on the manufacturing segment of the un-incorporated non-agricultural enterprises sector. The shares of enterprises owned by SCs and STs also vary significantly across industry groups. An analysis at the two-digit level of industrial classification suggests that in the rural manufacturing OAE segment in leather, transport equipment, wood products, tobacco products, and non-metallic mineral products, the shares of SC-owned enterprises were high. Similarly, in beverages, transport equipment, pharmaceuticals, and wood products, ST-owned enterprises were high (Table 8.8). Enterprises in leather and its products were largely owned and managed by SCs, but their presence across type of enterprise varied significantly; SCs owned 81.50% and 31.53% of leather-manufacturing units in rural OAE and establishment segments, respectively, while in urban areas they owned 45.70% and 20.00% of leather-manufacturing units in rural OAE and establishment segments.

As we have observed in the foregoing analysis, as the scale of operation increases, the share of enterprises owned by SCs decreases. It also seems that SCs continue to operate in product lines of their hereditary/ancestral occupations. In a large number of industry groups, the share of SC-owned enterprises was high as compared with that of STs, irrespective of type and location of enterprises (Table 8.9). However, the SC- and ST-owned enterprises were limited to very few select manufacturing activities in the un-incorporated manufacturing sector. Moreover, those enterprises were largely in traditional industry groups with highly labor-intensive production processes. Their presence in capital-intensive/non-agro-based industry groups is negligible. To start or run enterprises in these sectors seems

Table 8.7 Proportion of enterprises owned by various social groups (percentage): 2010–11

Percentage of enterprise owned by	*All enterprises*			
	Rural		*Urban*	
	OAEs	*Establishments*	*OAEs*	*Establishments*
1	2	3	4	5
SCs	16.50	8.16	12.69	4.75
STs	6.54	4.23	1.61	0.81
OBCs	47.18	46.02	44.21	36.77
Others	29.78	41.59	41.49	57.68
All	100	100	100	100
Percentage of enterprise owned by	*Manufacturing*			
	OAEs	*Establishments*	*OAEs*	*Establishments*
SCs	17.17	8.56	10.95	5.47
STs	7.43	3.93	1.61	0.91
OBCs	47.69	47.53	51.96	43.77
Others	27.71	39.98	35.48	49.85
All	100	100	100	100

Source: Author's own estimates based on unit-level data on un-incorporated non-agricultural enterprises, 2010–11

Note: "All enterprises" includes manufacturing, trade, and other services

to require a high degree of skill and training and a large amount of investment. There are also significant rural-urban variations. Even within the same product line, the shares of SC- and ST-owned enterprises were higher in rural areas as compared with urban areas. Over the years, the urban areas seem to pose a greater degree of entry barriers for tribal entrepreneurs. Both scale and locational attributes thus operate adversely for these groups to participate in private business economy.

As we have seen in the unorganized manufacturing sector and the MSME segment, the un-incorporated manufacturing segment as well as the industry-wise distribution of SC- and ST-owned enterprises were highly skewed and unevenly distributed across industry groups (Table 8.9). Four or five industry groups such as wood and wood products, beverages, tobacco products, textile products, and furniture accounted for more than 70% in each category. This pattern holds true not only in rural and urban areas but also in OAE and establishment segments. But the concentration of ST-owned enterprises was more skewed than that of SC-owned enterprises. Of the top five industry groups (in terms of incidence as well as weight of tribal entrepreneurship), about three are common for SCs and STs. To explain such pattern, factors

Table 8.8 Top five industry groups in terms of share of enterprises owned by SCs and STs

Type and locale of enterprises	*NIC*	*Description*	*Share of SC-owned enterprises*	*NIC*	*Description*	*Share of ST-owned enterprises*
1	*2*	*3*	*4*	*5*	*6*	*7*
Rural OAEs	15	Leather products	81.50	11	Manufacturing of beverage	72.70
	30	Transport equipment	39.60	30	Transport equipment	36.40
	16	Wood and wood products	32.60	21	Pharmaceuticals	32.76
	12	Tobacco products	17.80	16	Wood and wood products	18.20
	23	Non-metallic mineral products	17.20	22	Rubber and plastics	14.31
Rural Establishments	15	Leather products	31.53	11	Manufacturing of beverage	35.84
	27	Electrical equipment	13.80	24	Basic metals	31.76
	14	Wearing apparel	13.49	31	Furniture	6.53
	31	Furniture	11.24	30	Transport equipment	5.69
	16	Wood and wood products	10.54	16	Wood and wood products	4.32
Urban OAEs	15	Leather products	45.70	24	Basic metals	42.24
	16	Wood and wood products	21.42	11	Manufacturing of beverage	24.20
	23	Non-metallic mineral products	20.02	16	Wood and wood products	7.41
	12	Tobacco products	12.82	18	Printing	3.62
	20	Chemical products	12.20	22	Rubber and plastics	2.92
Urban Establishments	15	Leather products	20.00	17	Paper and paper products	7.25
	22	Rubber and plastics	8.97	15	Leather products	3.10
	31	Furniture	7.92	20	Chemical products	2.50
	14	Wearing apparel	7.79	25	Fabricated metal product	1.68
	16	Wood and wood products	7.41	30	Transport equipment	1.50

Source: Author's own estimates based on unit-level data on un-incorporated non-agricultural enterprises, 2010–11

Note: Industry codes and description are based on National Industrial Classification (NIC) 2008

Table 8.9 Industry-wise distribution of SC- and ST-owned enterprises (percentage): top five

Type and locale of enterprises	*NIC*	*Description*	*Share of industry in total SC-owned enterprises*	*NIC*	*Description*	*Share of industry in total ST-owned enterprises*
1	*2*	*3*	*4*	*5*	*6*	*7*
Rural OAEs	16	Wood and wood products	24.19	16	Wood and wood products	31.48
	14	Wearing apparel	20.27	11	Manufacturing of beverage	18.34
	12	Tobacco products	19.98	14	Wearing apparel	12.43
	13	Manufacturing of textile	13.54	10	Food and food products	11.46
	10	Food and food products	8.53	12	Tobacco products	10.32
	Total of top five		86.50	Total of top five		84.04
	All Total		100.00	All Total		100.00
Rural Establishments	14	Wearing apparel	22.01	10	Food and food products	24.38
	23	Non-metallic mineral products	13.80	11	Manufacturing of beverage	14.28
	10	Food and food products	13.79	31	Furniture	12.79
	13	Manufacturing of textile	10.98	23	Non-metallic mineral products	12.79
	16	Wood and wood products	10.86	14	Wearing apparel	11.92
	Total of top five		71.45	Total of top five		76.15
	All Total		100.00	All Total		100.00

(*continued*)

Table 8.9 (continued)

Type and locale of enterprises	*NIC*	*Description*	*Share of industry in total SC-owned enterprises*	*NIC*	*Description*	*Share of industry in total ST-owned enterprises*
1	*2*	*3*	*4*	*5*	*6*	*7*
Urban OAEs	14	Wearing apparel	36.42	16	Wood and wood products	23.01
	13	Manufacturing of textile	12.24	14	Wearing apparel	22.77
	12	Tobacco products	9.91	24	Basic metals	13.03
	16	Wood and wood products	9.76	12	Tobacco products	10.12
	32	Other manufacturing	8.97	11	Manufacturing of beverage	5.06
	Total of top five		77.30	Total of top five		73.99
	All Total		100.00	All Total		100.00
Urban establishments	14	Wearing apparel	28.12	25	Fabricated metal product	19.87
	10	Food and food products	11.15	17	Paper and paper products	15.43
	31	Furniture	8.76	14	Wearing apparel	15.41
	25	Fabricated metal products	8.24	10	Food and food products	9.41
	13	Manufacturing of textile	7.44	31	Furniture	8.69
	Total of top five		63.72	Total of top five		68.81
	All Total		100.00	All Total		100.00

Source: Author's own estimates based on unit-level data on un-incorporated non-agricultural enterprises, 2010–11

Note: Industry codes and description are based on National Industrial Classification (NIC) 2008

other than caste are at work, such as education, household net income, parental entrepreneurship, and inter-generational business links. These are issues which require more dis-aggregated–level analysis.

Performance Differences

The present section discusses the performance differences between the enterprises owned by SCs and STs and those by other castes, based on All India census of MSMEs, 2006–07. Not only is the share of enterprises owned by SCs and STs low but also the returns to their enterprises are low as compared with those owned by higher castes. Several key structural ratios could be considered to explain the performance differences between SC- and ST-owned enterprises and those owned by the other castes. Based on unit-level data of 2006–07 SSI survey, the present section analyzes select structural coefficients such as per-worker productivity, capital-labor ratio, and worker per unit which provide considerable insights about the relative efficiency of enterprises owned by different social groups.

In 2006–07, SCs owned and managed 7.60% of enterprises, which accounted for 4.92% of employment but less than 3% of gross output, 4% of fixed assets, and 5% of exports in the registered SSI sector. Similarly, STs owned and managed 2.87% enterprises, which accounted for 2.18% of employment, 1.92% of fixed capital, and nearly 2% of share in output and exports (Table 8.10). In the unregistered segment as well, these percentages are higher as compared with the registered segment but are still much lower as compared with higher castes. In both segments, a huge gap between the share in enterprises and that in other principal characteristics was observed, and within each segment also there are significant gaps among different social groups. It follows from the above discussion that the ownership of enterprises by different social groups is associated with the performance indicators of an enterprise.

Table 8.11 provides estimates of select structural ratios for the registered and unregistered SSIs. It shows that per enterprise employment, output, fixed capital, and exports are significantly lower for the SC- and ST-owned enterprises as compared with those owned by higher castes. This holds true in both registered and unregistered segments of SSI. The SC- and ST-owned enterprises have less employment-generating capacity in registered SSI; while enterprises owned by high caste (others) on average generate (employs) 8 units of employment, those owned by SCs (or STs) generates only 3 to 4 units of employment. The employment

Table 8.10 Share of principal characteristics by social group/caste of the owner: 2006–07

SSI segment/ Social groups/	*Percentage share in*							
	Number of Unit	*Employment*	*Original value of P and M*	*Market value of fixed assets*	*Gross input*	*Gross output*	*Gross value added*	*Exports*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
Registered								
SC	7.60	4.92	3.18	3.80	3.04	2.87	3.33	5.11
ST	2.87	2.18	1.92	3.02	2.35	2.16	2.65	1.87
OBC	38.28	26.07	15.07	14.64	13.68	12.66	15.40	16.45
Others	51.26	66.83	79.82	78.53	80.93	82.31	78.62	76.57
Total	100	100	100	100	100	100	100	100
Unregistered								
SC	11.57	9.71	6.24	6.40	6.75	5.84	7.58	Na
ST	5.27	4.86	3.14	2.52	3.14	2.49	3.73	Na
OBC	46.64	45.81	43.42	42.69	36.95	30.21	43.10	Na
Others	36.52	39.63	47.20	48.38	53.17	61.46	45.59	Na
Total	100	100	100	100	100	100	100	Na
Registered + Unregistered								
SC	11.27	8.81	4.62	4.70	4.30	3.71	5.11	5.11
ST	5.09	4.36	2.50	2.85	2.61	2.25	3.10	1.87
OBC	46.02	42.09	28.40	24.34	21.58	17.60	26.99	16.45
Others	37.61	44.74	64.49	68.11	71.51	76.44	64.80	76.57
Total	100	100	100	100	100	100	100	100

Source: Own estimates based on unit-level data on fourth All India Census of Micro, Small and Medium Enterprises: 2006–07

content of enterprise in the unregistered segment, across social groups, is almost the same.

Levels of labor productivity (measured as gross value added per worker) and capital-labor (measured as market value of fixed assets per worker) ratios were also higher in enterprises owned by higher castes. The ratio of labor productivity in registered SSI between higher caste-owned enterprises and the SC-owned was 1:0.57 but is nearly 1:0.68 in the unregistered segment of the SSI sector (Table 8.11). Similarly, the ratios of per enterprise output between high caste-owned and that of SC-owned

Table 8.11 Select performance indicators across social group/caste of the owner: 2006–07

SSI segment/ Social Groups	*Per enterprise*				*Per-worker gross value added (Rs.)*	*Capital-labor ratio (Rs.)*
	Employment	*Gross output (Rs.)*	*Market value of fixed assets (Rs.)*	*Exports (Rs.)*		
1	*2*	*3*	*4*	*5*	*6*	*7*
Registered						
SCs	3.86	1,809,924	1,436,501	291,842	191,720	372,535
STs	4.52	3,702,878	3,024,760	283,292	345,593	668,507
OBCs	4.05	1,617,053	1,098,527	186,596	167,671	270,976
Others	7.76	7,142,911	4,400,215	648,686	333,864	566,963
Total	5.95	4,523,808	2,871,794	434,215	283,797	482,454
Unregistered						
SCs	1.72	108,533	67,136	NA	36,958	38,933
STs	1.90	110,670	58,150	NA	36,245	30,665
OBCs	2.02	147,356	111,093	NA	44,505	55,036
Others	2.23	270,784	160,790	NA	54,419	72,102
Total	2.06	187,267	109,672	NA	35,360	50,574
Ratios relative to others (Others = 1)						
Registered						
SCs	0.50	0.25	0.33	0.45	0.57	0.66
STs	0.58	0.52	0.69	0.44	1.04	1.18
OBCs	0.52	0.23	0.25	0.29	0.50	0.48
Unregistered						
SCs	0.77	0.40	0.42	NA	0.68	0.54
STs	0.85	0.41	0.36	NA	0.67	0.43
OBCs	0.91	0.54	0.69	NA	0.82	0.76

Source: The same as in Table 10.

enterprises were 1:0.25 and 1:0.40 in registered and unregistered segments of the SSI sector, respectively. Thus, in terms of relative efficiency, enterprises owned by SCs and STs do not perform better than those owned and managed by OBCs and other castes. A more detailed industry-wise analysis is essential to arrive at a better understanding of the implications of castes on economic performance of micro and small enterprises. It would also be interesting to identify situations in which the conditions of these enterprises would improve. Success in reducing the performance gap

between the tribal and higher caste-owned enterprises will depend to a large extent on providing an enabling environment that nurtures dalit businesses.

Concluding Remarks

Let us recapitulate the main findings of the analysis of available data. Notwithstanding the lack of systematic and comprehensive data, it is apparent that the proportion of enterprises owned and managed by SCs and STs is low as compared with higher castes and disproportionally low as compared with their share in the total population. It is a little disturbing to see that, over time, their shares have not changed, even if the absolute number of total enterprises has grown enormously.

Across all data sources that we have discussed, we found that participation of SCs and STs in private business economy is of a low order and is limited to very few product lines, such as leather, repair services, textile and wearing apparels, and wood and wood products. The phenomenon of under-representation is amply visible across all data sources. Notwithstanding the comparability problems across data sources, we did not find any significant improvement in their participation, although there are a series of government policies and schemes, as we have discussed in section "Issues, Reviews, and Policies" of this chapter. Furthermore, in terms of performance indicators, the enterprises owned by SCs and STs operate less efficiently than that owned by higher-caste entrepreneurs. There are host of constraints scuh as institutional, financial, technological and marketing that hold back these enterprises to operate at the very bottom of the productivity hierarchy and also to grow faster at a rising levels of productivity. Undoubtedly, a more systematic and detailed probe is called for.

The existing data sets, however, cannot address these and several other aspects that need to be probed for a well-informed and fact-based policy for promotion of enterprises among SCs and STs. Therefore, either several categories of information need to be included in the existing data sources or new comprehensive databases need to be developed. Examples of information that needs to be provided are how they started and constraints to start and run the enterprises; how they responded to technology-intensive industrialization and growth during the globalized regime; how they responded to post-2008 global economic slowdown; constraints these enterprises face while operating in the domestic market and tapping new markets; and their access to formal institutions in credit, technology, mar-

ket, skill, and training. To conclude, caste has been a systemic barrier for certain disadvantageous groups to participate in private business activities. To overcome these barriers, one important step would be to develop a comprehensive and policy-sensitive database focusing on disadvantageous and discriminated groups, which could be placed in the public domain, making identification and intervention more effective. Moreover, in order to supplement secondary data sources, field surveys and case studies need to be undertaken. Subject to these limitations, the results of this chapter call for more relevant data and detailed study for a better understanding of the continued phenomena of under-representation, exclusion, and discrimination of SCs and STs in India, who remain voiceless and confined to the marginal spaces of the formal and informal sectors of both the economy and society.

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Notes

1. Non-agricultural enterprises which are not incorporated (that is, registered under Companies Act, 1956) were covered in the survey. Furthermore, the domain of "un-incorporated enterprises" excluded (a) enterprises registered under Sections 2m(i) and 2m(ii) of the Factories Act of 1948 or bidi- and cigar-manufacturing enterprises registered under bidi and cigar workers (condition of employment) Act of 1966, (b) government/public sector enterprises, and (c) cooperatives. Thus, the coverage was restricted primarily to all household proprietary and partnership enterprises. In addition, self-help groups (SHGs), Private Non-Profit Institutions (NPIs), including Non-Profit Institutions Serving Households (NPISH), and trusts, were covered (NSSO 2012).
2. The Dalit Indian Chamber of Commerce and Industry (DICCI) started in 2005 with only 100 entrepreneurs as members and grew to more than 1000 as of June 2011. A list of the top 25 dalit entrepreneurs, based on DCSSI membership directory, is available in Sharma 2011.
3. Murphy, C. (2006) The Power of Caste Identity in Private Enterprise Ownership, M.Sc. thesis in Economics and Development, Oxford University.

4. The study further pointed out that 41% of the surveyed respondents started their business with the initial investment of less than Rs. 25,000, raising funds mainly from their own savings; these enterprises were also found to be operating at a very low scale; a significant proportion of them reported annual turnover below Rs. 1 lakh.
5. For detailed discussion, see various issues of SIDBI Report on Micro, Small and Medium Enterprises Sector; Annual Reports of the Ministry of Micro, Small and Medium Enterprises, Government of India.
6. For a complete coverage of schemes and policies, see Annual Reports of these ministries.
7. Household enterprises are those run by either proprietary or partnership (NSSO 1998).
8. The unorganized manufacturing sector is constituted of three types of enterprises: An enterprise owned and operated without the help of any hired worker, employed on a fairly regular basis, is described as an "own-account manufacturing enterprise" (OAME). An enterprise run with the assistance of at least one hired worker, employed on a fairly regular basis, is called an "establishment". An establishment that employs a total of not more than five workers is known as a "non-directory manufacturing establishment" (NDME), whereas one employing a total of six or more workers is categorized as a "directory manufacturing establishment" (DME). A directory establishment that employs 10 or more workers and uses power or one that employs 20 or more workers without using power is considered an "organized manufacturing enterprise". These units are covered under the Annual Survey of Industries (ASI).
9. OAEs and establishments are two types of enterprises covered in this survey. An enterprise, which is run without any hired worker employed on a fairly regular basis1, is termed an own-account enterprise. An enterprise which is employing at least one hired worker on a fairly regular basis is termed an establishment. Paid or unpaid apprentices and paid household member/servant/resident worker in an enterprise are considered hired workers (NSSO 2012).

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PART II

Rural: Urban Labour Mobility

CHAPTER 9

The Changing Nature of Rurality: Reframing the Discourse on Migration and Commuting

S. Chandrasekhar and Abhiroop Mukhopadhyay

Introduction

Where do urban boundaries end and rural areas begin? For administrative purposes, we know the answer. However, in many parts of India, the distinction between rural and urban is increasingly getting blurred when viewed from space. Satellite imagery suggests no break in terms of built-up area when one reaches the city limits. At the same time, improvements in transport and communication infrastructure have increased the ease of movement of goods and people between rural and urban areas. All this has led to people questioning the dichotomous lens of an area being rural or urban. Instead, one prefers to focus on the catchphrase "rurban" and have a discussion centered on the degree of *rurality*.

There is evidence to suggest that there has been a diversification of sources of income in rural India. As Gupta (2015) argues, "the earlier line that separated the farmer from the worker is slowly getting erased" (p. 38). The extent of *rurality* of different regions can be examined by many yardsticks, including the slope of the income gradient, the change

S. Chandrasekhar (✉)
Indira Gandhi Institute of Development Research, Mumbai, India

A. Mukhopadhyay
Indian Statistical Institute, New Delhi, India

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in the distribution of economic activity as distance from the city increases, or the source of income of rural households. Kundu et al. (2002) examined how key indicators like literacy, per capita incomes, and consumption expenditure decline as the distance of the village from the city increases. They find that per capita incomes decline steeply "in the immediate vicinity of the urban centre" with the slope becoming less steep after 15 km. In an analysis similar in spirit to that by Kundu et al. (2002), Sharma (2014) finds that the share of non-agricultural activities is higher in villages close to the city. The occupation profile of villages depends on linkages with its nearby areas, implying that while they might live in a village their work profile extends to beyond farming.

While large tracts of India continue to be classified as rural because of the threefold definition,[1] in particular the condition that 75% of the male population needs to be engaged in non-agricultural activities, an examination of the principal source of income of the households in rural India portrays a varied picture. Data from the National Sample Survey Office (NSSO) survey on Situation Assessment of Agricultural Households (January–December 2013) suggest that while less than two thirds of agricultural households report cultivation as the principal source of income, 22% of agricultural households report wage/salaried employment as their source of income (Table 9.1). A large proportion of agricultural households also report undertaking other activities in addition to their principal activity (Table 9.2). These suggest that despite the acknowledged stalled transition

Table 9.1 Principal source of income of agricultural households in India

	Estimated number of households	*Percentage*
Cultivation	57,236,201	63.45
Livestock	3,329,848	3.69
Other agricultural activity	957,778	1.06
Non-agricultural enterprises	4,197,217	4.65
Wage/Salaried employment	19,887,163	22.05
Pension	1,000,297	1.11
Remittances	2,957,906	3.28
Others	638,646	0.71
Estimated number of agricultural households	90,205,056	100

Source: Calculations from Unit Level Data NSSO Situation of Agricultural Households in India, January–December 2013

Table 9.2 Additional activities undertaken by agricultural households in India

Principal source of income	*Additional activities*
Cultivation	No additional Activity (12%), Livestock (34%), Livestock and Wage/Salaried Employment (17%), Wage/Salaried Employment (8%), All other combinations (29%)
Livestock	No additional Activity (13%), Cultivation (30%), Wage/Salaried Employment (14%), Cultivation and Wage/Salaried Employment (12%), All other Combinations (31%)
Other agricultural activity	Cultivation (7%), Cultivation and Livestock (22%), Cultivation and Wage/Salaried Employment (10%), Cultivation. Livestock and Wage/Salaried Employment (17%) All other Combinations (34%)
Non-agricultural enterprises	Cultivation (22%), Livestock (12%), Cultivation and Livestock (24%), Cultivation, Livestock and Wage/Salaried Employment (10%), All other Combinations (32%)
Wage/Salaried employment	Cultivation (20%), Livestock (14%), Cultivation and Livestock (37%), All other Combinations (29%)
Pension	Cultivation (18%), Livestock (7%), Cultivation and Livestock (22%), Cultivation, Livestock and Wage/Salaried Employment (8%), Cultivation, Livestock and Non Agricultural Enterprises (6%), All other Combinations (39%)
Remittances	Cultivation (21%), Livestock (7%), Cultivation and Livestock (37%), Cultivation and Wage (9%), All other Combinations (26%)
Others	Livestock (6%), Cultivation and Livestock (6%), Cultivation and Wage (14%), Cultivation, Livestock and Wage/Salaried Employment (34%), Cultivation, Livestock and Wage/Salaried Employment and Remittances (5%), All other Combinations (35%)

Source: Calculations from Unit Level Data NSSO Situation of Agricultural Households in India, January–December 2013

of workers out of agriculture, there is diversification of sources of income to some extent in rural India. Households receive income from multiple activities and this is evident from Table 9.3. From the table, it is also evident that the share of income from wages and cultivation varies by the amount of land possessed by the household.

Having thus provided evidence that there are differences in extent of *rurality*, this chapter seeks to better understand what it implies for mobility of workers. By mobility, we refer to migration and commuting. In the context of migration, the chapter focuses primarily on short-term migration since the number of short-term migrants is a large multiple of long-term migrants.

Table 9.3 Average monthly income (Rs.) and consumption expenditure (Rs) per agricultural household for the agricultural year, July 2012–June 2013

Land size	*Wages*	*Cultivation*	*Animals*	*Non-farm*	*Total*	*Consumption*
< 0.01	2902	30	1181	447	4561	5108
0.01–0.40	2386	687	621	459	4152	5401
0.41–1	2011	2145	629	462	5247	6020
1.01–2	1728	4209	818	593	7348	6457
2.01–4	1657	7359	1161	554	10,730	7786
4.01–10	2031	15,243	1501	861	19,637	10,104
10.00 +	1311	35,685	2622	1770	41,388	14,447
All sizes	**2071**	**3081**	**763**	**512**	**6426**	**6223**

Source: Calculations from Unit Level Data NSSO Situation of Agricultural Households in India, January–December 2013

In India, the emphasis of policy was always on moderating rural-urban migration or diverting rural-urban migrants from the metropolises to small and medium towns or both. Although the first and second five-year plans did recognize the issue of migration and the need to provide migrants with basic amenities in the cities, only in the third five-year plan was there a mention of the need to achieve in rural areas "a diversified occupational pattern in place of the present extreme dependence on agriculture". This was the first clear articulation that livelihoods need to be improved at the source by tackling the problem of surplus labor and alleviating the need to migrate. As part of the objective of securing balanced development between rural and urban areas, there was mention "of the need for a composite plan … for strengthening economic interdependence between towns and the surrounding rural areas" (Paragraph 26, Chap. 33, Government of India 1961). However, it is evident from successive plan documents that the authors did foresee the inevitability of an absolute increase in the number of migrants. The fourth five-year plan points to the increasing contribution of rural-urban migration to urban population growth. The anticipation has always been that there would be a surge in long-term rural-urban migrants. In the last two decades, the long-term migration rate has remained unchanged in the period of 1991–2001 and 2001–2011 (Pradhan 2013). This is not to suggest that worker mobility did not increase. What did increase was not only short-term migration but also two-way commuting between rural and urban areas (Keshri and Bhagat 2012, 2013; Mohanan 2008; Chandrasekhar 2011; Sharma and Chandrasekhar 2014).

India's near jobless growth can be traced to its inability to integrate rural-urban economies as envisaged in successive plans, a failure to address the issue of employability, and emergence of a skills mismatch. This has led India into an intractable quagmire of its own making. Our reading of the successive plan documents brings out an important point. India's planner failed to recognize the changing rural-urban continuum, the changing nature of rurality, and how this in turn will impact the mobility of workers, in particular commuting. Unlike the Chinese, whose movement was controlled by the state, Indians were free to migrate either permanently or temporarily to wherever the jobs were available.

The same macro factors that drive migration ended up driving the phenomenon of staying away from home and commuting: a lack of jobs in rural India and its small towns; an increase in employment opportunities just outside city boundaries; lack of full-time jobs in rural India as evidence by the fact that 20% of the individuals work less than 6 months a year; rural-urban wage differentials; and a shift in the location of the formal (informal) manufacturing sector from urban to rural (rural to urban) areas. In particular, the relocation of economic activity across the rural-urban boundaries also affected the nature and extent of rurality. From the perspective of rural residents, since the benefits of rural development programs are not portable, commuting, if feasible, is more attractive than migration. Urban residents would rather commute than migrate to rural areas since urban amenities are better than rural amenities.

This chapter is structured as follows. The "Estimates of Mobility from Official Statistics" section provides estimates of short-term migration and commuting based on NSSO data. The "Evidence from Localized Studies" section provides corroborating evidence from field studies for patterns evident in the official statistics. The "Welfare Impacts of Mobility" section focuses the welfare impacts on short-term migration and commuting. These sections are followed by a "Conclusion".

Estimates of Mobility from Official Statistics

Staying Away from Home and Short-term Migration

As mentioned in the introduction, we focus only on individuals staying away from home and short-term migrants and not on all migrants.[2] Data from the survey on the Situation of Agricultural Households in India conducted by the NSSO in 2013 provide interesting insights. Note that, in

this round, the NSSO did not survey all rural households but only agricultural households.[3] An estimated 460 million individuals lived in these households compared with the rural population of 833 million in 2011. So the estimates based on this survey are relevant only to this sub-section of the rural population. The survey sought information on whether members of the household stayed away from home. For each member of the household, information was sought on "whether (the individual) stayed away from usual place of residence for 15 days or more for purpose of employment during the reference period, July to December 2012".

We find that among members of farmer households who are working or unemployed, 3.84% stayed away from home for 15 days or more. Among those who stayed away, the distribution of their usual principal activity status was as follows: own-account worker (28%), worked as helper in household enterprise as unpaid family worker (25%), worked as regular salaried/wage employee (8%), and in other types of work (39%).

It is of interest to contrast the sector of work of individuals who stay away from home with that of the overall distribution of workers. We find that among those in working-age population of 15–59 years from farmer households, 82% are engaged in primary, 10% in secondary, and 8% in tertiary sector, respectively. Thus, even within farmer households, 18% of the workers are not working in the primary sector. Among the workers who stay away from home, 60% are in primary, 29% in secondary, and 11% in tertiary sector. What this suggests is that over a third of individuals who are members of farmer households and stay away from home for employment related reasons have a toehold outside of farming. We revisit this issue later in this chapter when we outline the findings from village studies.

Unlike the 2013 Survey on Situation of Agricultural Households in India, the 2007–08 survey of employment, unemployment, and migration covered all households in rural and urban India. The survey has information on the usual status (sector of work) of the short-term migrant and the sector of work when migrating away from home. Table 9.4 presents the migration streams in the context of short-term migrant workers. Among short-term migrant workers residing in rural areas, 37% move to urban areas of another state. Among short-term migrant workers residing in urban areas, 31.4% move to urban areas within the state while 26.3% move to urban areas of another state. Not all short-term migrants have a toehold outside of the primary sector and even among those who do, they work in

Table 9.4 Distribution of short-term migrants by destination during longest spell

Destination during longest spell	*Current place of residence*		
	Rural	*Urban*	*Total*
Same district rural	10.0	13.9	10.3
Same district urban	8.6	14.4	9.1
Other district of same state rural	13.6	6.7	13.1
Other district of same state urban	21.8	31.4	22.5
Other state rural	8.9	7.4	8.8
Other state urban	37.0	26.3	36.2
Total	100.0	100.0	100.0

Source: Author's calculation using NSSO 2007–08 data; Agrawal and Chandrasekhar (2015)

Table 9.5 Transition matrix: rural India

Sector of work (usual status)	*Sector of work when working as short-term migrant*			
	P	*S*	*C*	*T*
Primary (P)	37.92	14.41	35.84	11.83
Secondary (S)	6.36	85.35	5.77	2.51
Construction (C)	3.43	3.13	91.39	2.05
Services (T)	4.65	5.97	9.99	79.39

Source: Agrawal and Chandrasekhar (2015)

Note: Each row adds up to 100

the construction sector. This is evident from Table 9.5. Among short-term migrants whose usual status sector of work is the primary sector, nearly 38% continue to work in the primary sector when they are short-term migrants and 14.41%, 35.84%, and 11.83% work in the secondary, construction, and service sector. While Table 9.5 gives the aggregate snapshot, the pattern varies by whether the short-term migrant moved within the same district in which he or she usually resides, or moves to another district within the state of residence or to another state (Table 9.6). As is only to be expected, the transition out of the primary sector is highest among short-term migrants who move to urban areas. This becomes evident when one contrasts Panel 1 and 2, Panel 3 and 4, and Panel 5 and 6 in Table 9.6.

Table 9.6 Transition matrix by migration stream: rural India

1. Same district: rural					**2. Same district: urban**				
Industry of work (usual status)	Industry of work when working as short-term migrant				Industry of work (usual status)	Industry of work when working as short-term migrant			
	P	S	C	T		P	S	C	T
Primary (P)	81.07	10.60	5.64	2.69	Primary (P)	15.13	9.04	57.79	18.04
Secondary (S)	28.26	69.89	1.30	0.55	Secondary (S)	3.08	79.02	12.52	5.38
Construction (C)	13.43	7.95	78.32	0.30	Construction (C)	1.46	3.55	94.09	0.90
Services (T)	13.41	3.16	6.01	77.42	Services (T)	2.22	3.44	4.49	89.85
3. Same state but another district: rural					**4. Same state but another district: urban**				
Industry of work (usual status)	Industry of work when working as short-term migrant				Industry of work (usual status)	Industry of work when working as short-term migrant			
	P	S	C	T		P	S	C	T
Primary (P)	84.83	7.32	5.37	2.49	Primary (P)	7.94	13.11	57.09	21.86
Secondary (S)	6.74	90.07	1.54	1.65	Secondary (S)	0.20	90.49	5.16	4.16
Construction (C)	24.04	8.20	67.75	0.02	Construction (C)	0.40	1.58	96.79	1.22
Services (T)	24.37	0.27	5.30	70.06	Services (T)	0.83	5.16	12.31	81.70
5. Another state: rural					**6. Another state: urban**				
Industry of work (usual status)	Industry of work when working as short-term migrant				Industry of work (usual status)	Industry of work when working as short-term migrant			
	P	S	C	T		P	S	C	T
Primary (P)	72.52	13.26	10.27	3.95	Primary (P)	6.48	21.99	55.47	16.06
Secondary (S)	6.71	91.87	0.64	0.77	Secondary (S)	1.48	85.84	9.80	2.88
Construction (C)	39.08	9.83	46.71	4.38	Construction (C)	0.51	2.97	93.59	2.93
Services (T)	41.36	7.45	2.54	48.66	Services (T)	1.19	8.31	11.90	78.61

Source: Agrawal and Chandrasekhar (2015)

Note: Each row in each panel adds up to 100

Commuting for Work

There is a dearth of information on distance commuted by individuals for work. Two recent surveys[4] of the NSSO—the 65th round (July 2008–June 2009) and the 69th round (July–December 2012)[5]—sought information on the maximum distance to the place of work normally travelled by any earner of the household. What we ideally need is the distance travelled by each member of the household but such information is not available in the recent surveys.[6] So what patterns are evident from the NSSO's 65th and 69th round surveys?

In 2008–09, 15% of rural households did not have any member of the household who travelled to their place of work. In contrast, in 2012, 11.7% of rural households did not have any member travelling to their place of work. Correspondingly, in both rural and urban India, there has been an increase in the proportion of households where the maximum distance travelled by any earner of the household is over 10 km (Table 9.7).

One would have been able to glean better insights if, in addition to distance travelled, information was also available on the location to which the individual travelled. Such information was actually canvassed as part of the NSSO's 50th round (1993–94) survey of employment and unemployment. In the 50th round, information was available on how far the individual travelled within the same village/town (less than 5 km, 5–20 km, 20 km and above) or distance travelled to another village/town (less than 5 km, 5–20 km, 20 km and above). However, beginning with the 55th round (1999–00), in the survey of employment and unemployment this information was not sought. All that we now know is the place of residence (rural or urban) of the individual and the place of work (rural, urban, or no fixed place of work). Information on place of work is available for workers engaged in non-agricultural activities (that is, for persons employed in industry groups 012, 014, 015 and the National Industrial Classification (NIC) divisions 02–99).

Based on the NSSO's survey on employment and unemployment 2009–10, we estimate the size of workers residing in rural areas but working in urban areas to be 8.05 million. They account for 8.16% of rural workforce engaged in non-agriculture. In addition, the total number of urban residents working in rural areas is estimated at 4.37 million, accounting for 4.94% of the total urban workforce. Furthermore, an estimated 5.03 million rural and 7.17 million urban residents do not have a fixed workplace (Table 9.8). In total, an estimated 24 million workers commute

Table 9.7 Distribution of households by maximum distance normally travelled to the place of work by any earner of the household

	Rural		*Urban*	
	2012	*2008–09*	*2012*	*2008–09*
Not required to travel	11.7	15.0	18.6	19.7
Less than 1 Km	23.1	20.3	14.7	15.7
1–5 km	42.2	43.4	30.2	31.8
5–10 km	10.7	12.0	16.1	16.8
10 km or more	12.3	9.3	20.4	16.0
Total	100.0	100.0	100.0	100.0

Source: Government of India (2010, 2014)

Table 9.8 Estimated size of non-agricultural workforce based on sector of residence and place of work (All India) in 2009–10

Sector of residence	*Place of work*			
	Rural	*Urban*	*Not Fixed*	*Total*
Rural	85,556,220[a] (86.73)	8,050,036 (8.16)	5,035,493 (5.1)	98,641,749 (100)
Urban	4,370,678 (4.94)	76,947,337 (86.95)	7,177,731 (8.11)	88,495,746 (100)
Total	89,926,898 (48.05)	84,997,373 (45.42)	12,213,224 (6.53)	187,137,495 (100)

(Values in parentheses are percentages)

(Workers in NIC div. 02–99, industry group 012,014,015)

Source: Calculations from Unit Level Data NSSO Survey on Employment and Unemployment 2009–10

[a]Number and percentage of workers living in rural areas but working in urban areas. Similarly for others

across rural and urban boundaries daily for reasons related to employment. These numbers do not include the number of intra-rural and intra-urban commuters. It is important to adjust the size of rural and urban workforce to reflect the commuting workers (Mohanan 2008; Chandrasekhar 2011). If one were to ignore the workers with no fixed place of work, then for the year 2009–10, the urban workforce needs to be adjusted upwards by 3.68 million (8.05 million rural-urban commuters less 4.37 million urban rural commuters) and the rural workforce will have to be adjusted downwards by a similar magnitude.

Chandrasekhar (2011) points out that a disaggregation of the number of commuter workers by state reveals patterns that fit popular perceptions. The states adjoining the National Capital Territory of Delhi (that is, Punjab, Haryana, Rajasthan, and Uttar Pradesh) have a large number of rural residents reporting working in urban areas. The National Sample Survey regions adjoining Delhi from these four states have a sizeable number of workers reporting living in rural but working in urban areas. These four states account for nearly 35% of the workers (all – India) living in rural areas but working in urban areas. The data do suggest interesting commuting dynamics (rural-urban and urban-rural) in these four states and this needs to be explored in detail in the future. The four southern states—Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu—account for nearly 25% of such workers, while Maharashtra and Gujarat account for 11% of workers living in rural but working in urban areas. These averages are not surprising since these states have not only higher levels of urban population but also sizeable urban centers that would attract the commuter worker. Individuals might be inclined to live in rural areas to take advantage of the lower cost of living, particularly in housing. The four southern states account for 27% of urban residents working in rural areas, while the share of Maharashtra and Gujarat is 16%. Thus, the movement of workers across the rural-urban or urban-rural corridor is in the urbanized states of India or where large urban centers act as magnets.

Evidence from Localized Studies

Before we proceed to the evidence borne out by surveys undertaken by individual researchers, it is important to understand why these studies are relevant and the important gaps they fill. The village-level studies are rich in their description of the labor market transitions, migration process, and commuting for work. This richness of the localized studies helps glean an important insight: "given an option individuals would rather commute rather than migrate" (Datta et al. 2014). This inference cannot be drawn from data from the NSSO surveys.[7] Although NSSO data document large numbers of rural-urban commuters and findings from village studies, conversations on labor mobility have not moved beyond one that is migration-centric to one that also includes commuting. In a survey conducted in some villages in West Bengal where commuting is observed, Sharma (2016) found that, on average, individuals commuted 28 km one way and incurred over Rs. 300 on transport costs. Half the individuals used one

mode of transport, 15% used two modes, and the remaining individuals used three modes. The most common owned vehicle used by commuters is the bicycle. Workers using two modes of transport typically used railways or their own vehicle as the first mode and then boarded the bus. Respondents reporting using three different modes of transport mentioned that they used their own vehicle from residence, then the railways, and finally reached their workplace by bus, bicycle, or by walking.

In the discussion that follows, we draw insights from data from two surveys: a survey at two points in time of 42 villages from Uttar Pradesh and a longitudinal study in the village of Palanpur.

Changes Observed Over 1997–2011

The changes over time in non-agriculture employment and the urbanization of work are also seen in household longitudinal surveys. To begin with, we describe changes based on panel data collected in the southern and eastern part of Uttar Pradesh. The sample consists of 659 households first surveyed as part of the Living Standards Measurement Survey (LSMS) conducted by the World Bank. These households are spread over 42 villages in the districts of Allahabad, Banda, Basti, Faizabad, Gorakhpur, Hamirpur, Jaunpur, Mau, and Mirzapur. The baseline survey was conducted for the year 1997–98 (referred to hereafter as 1997 for convenience) where as a resurvey of the same households (including the splits) was conducted for the year 2010–11 (hereafter 2010). Both surveys were conducted between January and March and had a reference period of 12 months.

The narrative presented is not representative for Uttar Pradesh. However, insofar as they are based on longitudinal data, they track the same households and are better estimates of changes and what drives these changes. They also allow us to correlate initial characteristics to subsequent changes.

Rural households in most parts of India are occupied in a variety of tasks. We focus our attention here on the primary occupation status, as defined by the maximum amount of time devoted to an activity. Households in this part of Uttar Pradesh had already moved toward non-agriculture work by 1997–98 (Table 9.9). Around 40% of male members, age 20 years and above, were already engaged in non-agriculture activities.

Table 9.9 Non agriculture and urban work location

Percentage of male adult members (20 years and above) in a household working in	*1997*	*2010*	*Difference (2010–1997)*
Non agriculture	40.4	49.4	9
Non agriculture working outside the village	14.91	23.64	8.73
Non agriculture working in urban areas	11.02	16.47	5.45
Non agriculture in the same district	10.5	18.4	7.9
Non agriculture in the same district (urban)	7.09	12.11	5.02
Non agriculture in another district in the same state	2.08	2.48	0.4
Non agriculture in another district in the same state (urban)	1.83	1.77	−0.06
Non agriculture in another state	2.33	2.76	0.43
Non agriculture in another state (urban)	2.1	2.59	0.49

Interestingly, the village economy itself was able to generate a large content of this non-agriculture work through activities like animal care, cattle grazing, stone work, teaching, petty business, and cycle repair shops. We find that only 14.9% of the male adult members in a household used to go out of the village for work and that most of them went to urban areas (11% of all males). Over the 14 years, there has been a gradual increase in non-agriculture activities, and almost 49% of adult males in a household worked in non-agriculture activities by 2010. The main source of the 9% change comes from a rise in outside work, and more than half of it (5.45%) was accounted for by those working in urban areas.

What accounts for the change in location of the rural workforce? We classify those who do non-agriculture work outside the village into those who work within the same district, those who work in a different district in the same state, and those who work in a different state. Of the three, only the proportion of those working outside in the same district in non-agriculture work has gone up (7.9%). A large part of this rise is driven by work to urban areas (around 5%).[8] This is strong suggestive evidence of the increasing role of daily or very short-term migration for work.

What factors are correlated with the change in proportion of individuals that go for work outside the village but within the same district and in particular to nearby urban areas for work? It is plausible that the location of the

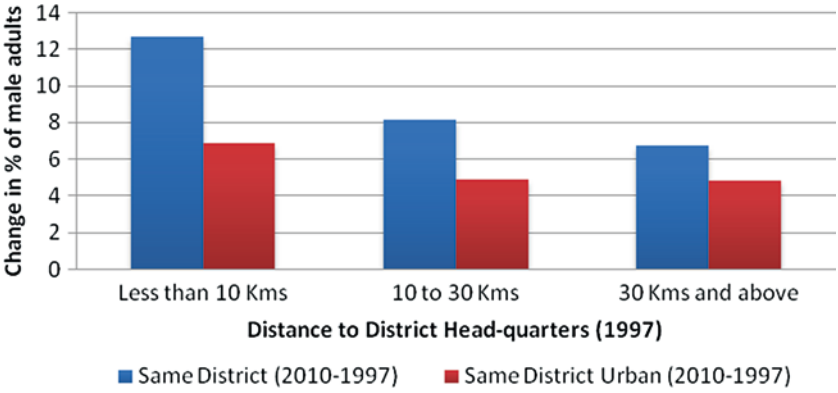

Fig. 9.1 Work location and proximity of village to district head-quarters

village itself has something to do with the change. In Fig. 9.1, we stratify the sample by the distance of the village from the district headquarters. Among those households who live in villages within 10 km of the district headquarters, the change in the proportion is the largest (around 12%) and is decreasing in distance for subsequent distance categories. But that this rise is not entirely on account of going to the nearest urban area is clear. The proportion of males going to urban areas from villages that are closer is not very different from those living in villages which are more than 10 km away, the difference being around 2%, which is only half the rise in the overall proportion of those travelling within the district to work. One explanation could be that the households living closer to the district headquarters were already working in urban areas in 1997. This is, to some extent, borne out by the data since in 1997; the proportion of those working in urban areas within the same district was 11.95% for households in villages less than 10 km away as compared with 9.6% for those residing in villages situated 10–30 km away. However, this does not rule out other explanations: for example, villages closer to the district headquarters have, over time, developed an environment around them that is peri-urban in character and work may be available in peri-urban areas within the same district. Hence, a large share of those going out from such villages may have started to work in an "urban" environment around their village but not in cities and towns (which the households typically report as "urban").

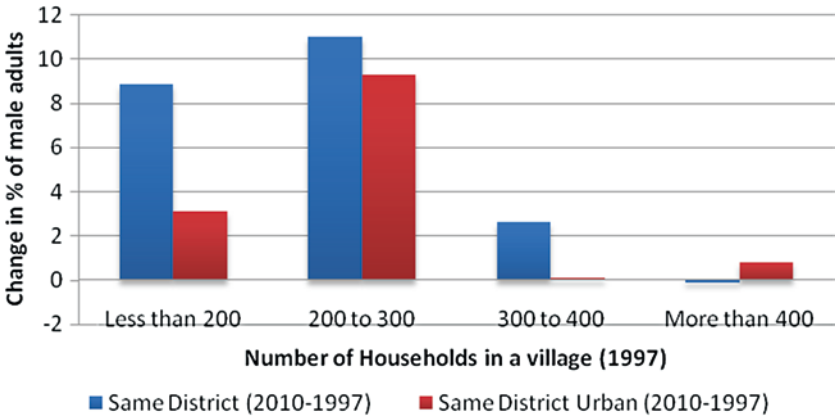

Fig. 9.2 Work location and village size

Since the local economy can provide a substitute for going outside for work, it may be revealing to check whether the size of the village affects the proportions going out to the same district and those to urban areas within them. We classify villages by their household population in 1997: those below 200 households, those between 200 and 300, those between 300 and 400, and those with a population of 400 and above (these population cutoffs divide the population into four quartiles). It is clear that the greatest change in the proportions that go out to the same district has come from the somewhat smaller villages (Fig. 9.2). Villages with a household population size of 300 and above have shown very little change. The proportions going to urban areas within the same district follow a similar narrative, although the smallest villages show a much lower proportion than intermediate-size villages. As before, part of the story is a higher base effect for the smallest villages, but the relatively greater change for intermediate-size villages suggests an interesting hypothesis for future investigation: that greater size may give recourse to networks, perhaps much needed in urban labor markets. But this relation will be non-monotonic as larger villages will also create more internal demand for labor, thus reducing the proportion of households needing to go outside the village.

How much of the rise in the proportions is driven by a pull in demand or a push borne out of need for additional subsistence. While this question

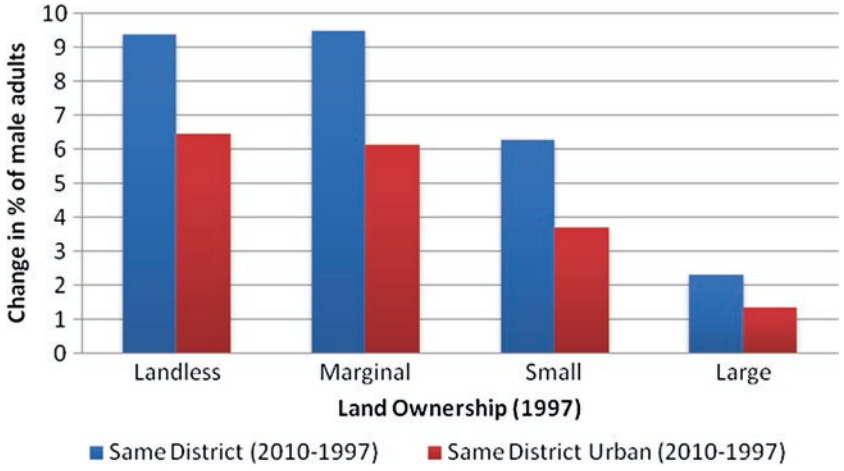

Fig. 9.3 Work location and land

would need a more sophisticated analysis, Fig. 9.3 shows that the greatest change in the proportions has come among the landless and marginal farmers (based on their land ownership in 1997).[9] The proportion for those going out within the same district among landless and marginal farmers has changed by around 9.5%, whereas the change among those going to urban areas is around 6%. A classification by caste, however, does not show great heterogeneity in terms of those going to urban areas. However, it does show that a larger proportion of the non-disadvantaged categories work within the same district but not in urban areas. The smaller rise in the scheduled castes and other backward castes may be tempered by the rise in opportunities of non-agriculture work within the village: for example, the National Rural Employment Guarantee Scheme. Anecdotal evidence suggests that upper-caste poorer households are less likely to do menial work inside the village: hence, they may step out of the village more for such work.

To summarize, an exploratory descriptive analysis of this longitudinal change chronicles a significant rise in out-of-village work, particularly to nearby places and to cities and towns. The stories gleaned from various descriptives point to the importance of urban geography, to the size of local economy, and to push factors (Fig. 9.4).

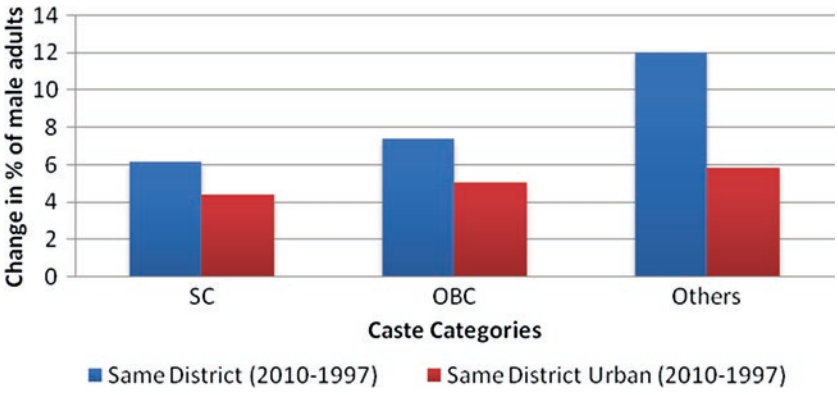

Fig. 9.4 Work location and caste

The Case of Palanpur

The response of households to the demand for labor emanating from outside the village economy is often dictated by history. Households from communities that are locked into skills and abilities that favored them in an environment where agriculture was dominant are often at a disadvantage when the economy exhibits sectoral shifts toward non-agriculture work. To gauge the household response to the changing environment around them, it is often useful to look at village studies. One such village that been studied over five decades is Palanpur, a village in the district of Moradabad in western Uttar Pradesh. Palanpur has been the subject of close study for over five decades (Bliss and Stern 1982; Lanjouw and Stern 1998). Data are available for all residing households from 1957 to 2008 on an almost decadal basis (1957–58, 1962–63, 1974–75, 1983–84, 1993 and 2008). In this discussion, we discuss results from an analysis of individual-level data for the years 1993 and 2008 (for more on this village, see Mukhopadhyay 2011).[10]

The village of Palanpur is located on a railway line between the busy urban center of Moradabad and the smaller rural town of Chandausi. Access to either of these urban centers, as well as other neighboring villages, is relatively easy given the ready access to and ease of railway transportation. It is likely therefore that working outside Palanpur is intrinsically linked to occupational choice. Some occupations, such as construction

work, portering, masonry, and marble polishing, are oriented toward a market well beyond Palanpur. These are largely carried out outside the village and in urban and peri-urban areas. On the other hand, cultivation is undertaken entirely inside the village. Hence, we start off by looking at snapshots of occupations (broadly classified) held by village residents. We focus on adult males age 15 and above.

Analogous to trends all over India, there has been a fall in the share of the proportion of adult male labor force that has worked in agriculture as a primary activity (Table 9.10). The fall of 7% in cultivation and livestock is in contrast to a rise in the proportion of adult males in non-farm self-employed, wage employment, and casual labor force. Out of these, the rise in self-employment has been the highest at 7%.

How does this correlate with working outside? To investigate this, we decompose those who work outside on their primary job into what job classification they belong to (Table 9.11). It is apparent that the major rise

Table 9.10 Change in occupation profile (Palanpur)

	1993	*2008*
Cultivation and livestock	187 (55)	184 (48)
Self-employed (non-farm)	16 (5)	45 (12)
Wage employment (regular + semi-regular)	46 (14)	43 (11)
Casual labor (agriculture and non-agriculture)	34 (10)	36 (9)
Others (out of labor force, student, vocational training, retired, unemployed)	57 (17)	79 (20)
All Occupations	340 (100)	387 (100)

Owing to rounding, percentages may not add up to 100.

Total number of adults is in parentheses.

Source: Mukhopadhyay 2011

Table 9.11 Decomposition of primary jobs for those working outside

	1993	*2008*
Cultivation and livestock	0	0
Self-employed	4	27
Wage employment	40	35
Casual labor (non-agriculture)	18	28
Casual labor (agriculture)	0	0
Total	100	100

that has taken place over the period has been the greater presence of non-agriculture casual labor as well as self-employment. Further description of self-employment (not reported in the table) yields that this is driven by the rise in marble polishing business as well as machine repair shops. Given the rise in self-employment as a profession and its presence among those who go out, it is clear that self-employment has been a major source of out-of-village jobs in Palanpur.

It is interesting to explore the decomposition of occupations and working outside by social groups in the village. A brief word about the social structure of the village: Thakurs are the highest caste in the village. Muroas come next and are traditionally known to be clever farmers. We group the Telis and Dhimars under the group: Muslims. Jatabs are the lowest social group in the village and belong to the general category "Scheduled castes". The other groups are put together in "Others".

Given this structure of castes in the village, it is interesting to see the changes in occupation structure across castes as well as the change in proportion of those who go out (Table 9.12). It is clear that those groups that have moved toward self-employment or non-agriculture casual labor have shown a greater change in working outside the village. For example, the Muslims show the greatest change in proportion of those working outside the village. This is echoed in their shift of occupation structure from farming to self-employment. Similarly, Jatabs have moved away from casual labor in agriculture to non-agriculture work and this accounts for their change in their location of work. The Muraos, on the other hand, remain in agriculture. Their expertise in farming and their reticence for change have meant that they are less able to take advantage of the work opportunities outside.

As pointed out above, Palanpur lies in the urbanized belt of western Uttar Pradesh; most of the outside village work is to urbanized and peri-urbanized regions. What the village study brings out is the changing nature of occupations and what they imply for working outside the village in such an environment.

Welfare Impacts of Mobility

The limited evidence that is available suggests that welfare impacts of short-term migration and commuting on households need not be the same. The data available from the NSSO surveys permit a rigorous examination of welfare impacts of short-term migration and impact of commuting on rural households. We draw on the findings of Agrawal and

Table 9.12 Social group–wise decomposition of occupations and working outside

2008	Proportion of each group engaged in					
Primary occupation	Thakur	Murao	Muslim	Jatab	Others	Total (percentage)
Cultivation and livestock	37	71	36	56	34	48
Self-employed	13	4	20	0	19	11
Wage employment	20	6	11	4	10	11
Casual labor (non-agriculture)	5	3	9	28	10	9
Casual labor (agriculture)	0	0	4	0	0	1
Working outside in primary job	39	8	33	30	27	23
Total adult males	**98**	**101**	**55**	**50**	**83**	**387**
1993						
Primary occupation	Thakur	Murao	Muslim	Jatab	Others	Total (percentage)
Cultivation and livestock	45	75	60	48	46	55
Self-employed	6	5	2	2	6	5
Wage employment	22	7	9	4	18	13
Casual labor (non-agriculture)	5	1	7	11	5	5
Casual labor (agriculture)	1	1	14	13	2	5
Working outside in primary job	27	6	16	17	25	19
Total adult males	**77**	**81**	**43**	**46**	**93**	**340**
Change in working outside in primary job (2008–1993)	12	2	17	13	2	4

Chandrasekhar (2015), who examine the wages of short-term migrants in rural India; Chandrasekhar et al. (2015), who focus on consumption expenditure of rural households with short-term migrants; and Sharma and Chandrasekhar (2016), who sought to understand differences in food diversity between rural households with no commuters, with rural-urban commuters, and workers with no fixed place of work.

Agrawal and Chandrasekhar (2015) find that short-term migrants have lower wages than workers who are not short-term migrants. Hence, it does not come as a surprise that Chandrasekhar et al. (2015) establish that households with a short-term migrant have lower consumption expenditure. Both of these papers do address the problem of endogenity of the decision to migrate. There is only one recent study that we are aware of that contrasts income of households with commuters and households with migrants.

Datta et al. (2014) find that in Chandkura (which is near Patna, the capital of the state of Bihar) commuting is important but that in Mahisham (which is not near a large city) migration is observed. In Chandkura, workers were commuting up to 30 km every day while in Mahisham individuals commuted only as far as the edge of the village. They argue that "the proximity of expanding urban labor markets meant that some of the advantages from migration could be obtained without leaving the village (Chankura), and about a quarter of the male labor force commuted for work on a daily basis in 2012, mostly to Patna or nearby towns. If only income within the village (including commuting) is taken into account, the mean household income in Chandkura (where commuting is important) was 78 per cent higher than in Mahisham (where migration is more important). After adding in remittances, the gap is reduced to 27 per cent (these are averages for the whole village, including both migrant and non-migrant households)" (p. 9). Their findings establish the importance of commuting not only as a diversification strategy but also for augmenting the income of rural households. That commuting makes households better off is also borne out from the NSSO data. Rural households with rural-urban commuters have higher average and median monthly per capita consumption expenditure than households where all workers live and work in rural areas as well as rural households with workers having no fixed place of work (Table 9.13). Sharma and Chandrasekhar (2015) analyze the impact of commuting by workers on the dietary diversity of rural households in India. In order to address the problem of endogenity of the decision to commute, they use propensity score methods. They find that households with commuters have higher dietary diversity compared with households without commuters or households with workers who have no fixed place of work. They do establish differences in dietary diversity across households by their primary source of income.

Table 9.13 Monthly per capita consumption expenditure (MPCE) of rural households in 2009–10

Type of households	*Frequency*	*Percent*	*Mean MPCE*	*Median MPCE*
Rural household with no commuters[a]	143,121,153	95.88	953	817
Rural household with at least one rural-urban commuter	3,577,259	2.4	1188	961
Rural household with at least one no fixed place commuter	2,576,090	1.72	835	722
Total	149,274,502	100		

Source: Chandrasekhar and Sharma (2016)

[a]This includes households which have no individuals working outside of agriculture

Conclusion

An issue that has typically slipped under the policy radar relates to the workforce that resides in rural areas and commutes to urban areas and vice versa. A possible reason for this is that most conversations on worker mobility have focused on migration. The basic point of the chapter is that both the NSSO data and village-level studies have established the fact that worker mobility (in particular, short-term migration and commuting) is on the rise. The village studies show a significant rise in out-of-village work. In this decade, the following three factors could lead to a steady stream of commuter workers and short-term migration: increase in the number of towns from 5161 in 2001 to 7935 towns in 2011; an expansion in construction, manufacturing, and the wholesale and retail trade sectors; and greater transport linkages between the 640 districts of India spread across 36 states and union territories. The increase in connectivity across regions in turn would facilitate ease of movement of workers across geographically segmented labor markets. These changes have implications for the sector (agriculture versus non-agriculture) and nature of work (self-employed versus regular wage salaried). The sector and nature of work in turn determine the mode of transport used by workers. From a policy perspective, it becomes important to invest in affordable mass transportation connecting rural and urban areas. These investments have implications for mode of transport and distance travelled to work. Such investments will act as a catalyst in speeding up the interconnectedness between cities, towns, and villages, which will determine the interdependence among regions and in particular between rural and urban India.

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Notes

1. The definition adopted for an urban area is as follows:
   (a) all places with a Municipality, Corporation, or Cantonment or Notified Town Area
   (b) all other places which satisfied the following criteria: (i) a minimum population of 5,000, (ii) at least 75% of the male working population was non-agricultural, and (iii) a density of population of at least 400 sq. km (that is, 1000 per sq. mile).
2. Chandrasekhar and Sharma (2015) provide estimates of various migration streams, short-term migrants, and return migrants using various rounds of NSSO data.
3. An agricultural household for this survey was defined as a household receiving some value of produce more than Rs. 3000 from agricultural activities (for example, cultivation of field crops, horticultural crops, fodder crops, plantation, animal husbandry, poultry, fishery, piggery, bee-keeping, vermiculture, and sericulture) and having at least one member self-employed in agriculture either in the principal status or in subsidiary status during previous 365 days (p. 3 Government of India 2014).
4. NSSO's 58th round (July–December 2002) survey on "Housing Condition" had a response to two questions. The first question was on distance (in kilometers) to the place of work normally travelled by the principal earner of the household, and the second question was on maximum distance (in kilometers) to the place of work normally travelled by any member of the household.
5. See Government of India (2010, 2014).
6. This information was canvassed in the NSSO's 54th round survey (January–June 1998).
7. The NSSO's Survey of Employment and Unemployment conducted in 1999–00 not only had information on two-way commuting between rural and urban areas but also had information on migration. The 2007–08 survey of employment, unemployment, and migration did not have information on rural-urban commuting by workers.

8. According to the definition used by the LSMS, a member is defined as a household member if he has not been away from the household for more than 3 months in a year. This is in contrast to the definition used by the NSSO that requires a residency of 6 months to count an individual as a household member. This may imply that the proportion of people working in other states is higher in our sample. However, as can be seen, this does not systematically bias our results on change, since this category shows no perceptible increase over time.
9. These are based on standard definitions: marginal farmers are those with a landholding size of less than 2.5 acres; small famers have between 2.5 and 5 acres whereas those with greater than 5 acres are classified as big farmers.
10. This is part of a larger study sponsored by the Department for International Development and led by Professor Nicholas Stern of the London School of Economics.

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CHAPTER 10

Out-migration from the Hill Region of Uttarakhand: Magnitude, Challenges, and Policy Options

Rajendra P. Mamgain and D. Narasimha Reddy

The Context

A disturbing feature of economic growth in India relates to an increase in inequalities across its regions and various social groups over the last six decades of development planning (Planning Commission 2013a, b). The persistence of regional inequalities in income levels is largely attributable to the failure to develop a basic economic and social infrastructure across several regions of the country and unequal access to income opportunities for persons belonging to various social groups. The neglect of backward regions by the dominant powers in larger states had led occasionally to a demand for smaller states in India. The arguments in favor of smaller states include better governance and resultant economic efficiency in the use of state resources, thereby leading to improved income opportunities. The creation of Uttarakhand as a new state of the Indian Union on November 9, 2000, is also largely linked with the economic backwardness of the

R.P. Mamgain (✉)
Giri Institute of Development Studies, Lucknow, India

D.N. Reddy
Formerly of University of Hyderabad, Hyderabad, India

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region. The major aspirations of common people from their new State included the creation of better employment opportunities for them. This in turn was expected to arrest the existing large-scale out-migration of able-bodied youth, mainly educated males, from the Hill Regions of Uttarakhand. Other expectations relate to improved access to infrastructure facilities such as electricity, roads, telecommunications, health, education, and better governance, thus leading to better living conditions for the population residing in the State in general and in the hill districts in particular.

The development experience of Uttarakhand over a nearly a decade and a half has been quite encouraging with respect to achieving high economic growth. However, such growth has been mainly centered on three plain districts of the State, and the ten hill districts remain far behind in this increasing prosperity of the State (GoUK 2013–2014 Annual Plan). Most of the economic opportunities have been developed in plain areas of the State. As a result, the population in the Hill Region of the State has to struggle hard to eke out their livelihoods largely from agriculture by putting larger numbers of their household members into the labor force (Mamgain 2004). In turn, the pace of out-migration could not slow down from the hill districts of the State after its formation. Rather, it has accelerated during recent years. This is reflected by the results of Population Census 2011. It shows a very slow growth of population in most of the mountain districts of the state. An absolute decline of 17,868 persons in the population of Almora and Pauri Garhwal districts between 2001 and 2011 is a testimony of huge out-migration. Historically, these districts had well-developed social indicators in comparison with many other districts of the State. The pace of out-migration is so huge that many of the villages are left with a population in a single digit. In fact, this situation seems to arise from an alarming increase in the out-migration from these two districts, which is mainly associated with the lack of economic opportunities in the region and increasing pressure on the local economy. In brief, the fruits of development could not reach these districts which otherwise could have reduced the pace of out-migration by creating opportunities of economic and social well-being. The alarming de-population of villages in remote and border areas has raised the concern of security of the borders of the country falling along with the hill districts of Uttarakhand. This is, in fact, a serious policy challenge that deserves immediate attention.

The Questions

There are several aspects relating to migration from Uttarakhand that need to be looked at from the viewpoint of enhancing understanding, appropriate policy design, and effective action. What is the magnitude of out-migration? Are people being pushed by depletion of livelihood resources or are they migrating because they are in a position in terms of both capabilities and opportunities for better avenues elsewhere? What happens when whole families and entire villages leave the resources and environment that are likely to degenerate? Is it possible to regenerate abandoned villages and resources once they are abandoned? What is happening to the linkages between the migrants and the families left behind? Are migrants contributing to the improvement not just of the current economic situation of the members left behind but also of the resource base, both physical and human, of the native place? Which regions or pockets are more prone to migration? Are location and availability of infrastructure having any impact on reducing out-migration and inducing return migration? Could development interventions make any impact on attracting return migration and discouraging out-migration? How can return migration, which would contribute to the local economy, be encouraged? What are the underlying reasons due to which migration could not generate multiplier impacts in the local economy? What are the alternative technological options to improve the livelihood options for the people of the region?

Addressing these questions relating to migration and return migration is, thus, an important issue that deserve serious attention at the policy level, particularly in the context of providing feedback to the Government of Uttarakhand for developing its policies and programs to restrict distress-driven out-migration and also formulating its "brain gain" policy. This chapter attempts to answer some of the above questions by drawing on a sample survey specifically undertaken in 18 villages in the Pauri Garhwal and Almora districts during the last quarter of 2013 and also on an earlier extensive field-based work in 100 villages across ten hill districts of Uttarakhand during 2005 by one of the present authors (Mamgain et al. 2005).

The chapter is divided into five sections. The second section examines the growth and structure of income (gross district domestic product) to support the argument that most of the income-generating economic activities are highly concentrated in the plain districts of the State. The next section on "Out-migration and Its Magnitude and Impact" analyzes the dynamics of out-migration and its impact on household economy. It discusses the

underlying causes of migration from the Hill Region of Uttarakhand and argues that migration has almost failed to generate any multiplier effects in the village economy. The section depicts the hardships of village life in general and women in particular in the Hill Region of Uttarakhand in the wake of increasing out-migration. The fourth section analyzes the policy paradigm and its failures to create remunerative employment opportunities in the Hill Region and the resultant out-migration that created the present demographic vacuum. The concluding section offers policy suggestions to promote employment opportunities in the Hill Region of Uttarakhand.

Growth and Regional Inequalities

For understanding the dynamics of out-migration, it will be useful to briefly mention the pattern of economic growth and regional inequalities in Uttarakhand. Since its formation, Uttarakhand witnessed an impressive growth of over 9% in its gross state domestic product (GSDP) during the period of 2001–02 to 2011–12 (at 2004–05 prices). As a result, per capita income of the State almost increased by 4.5 times, from Rs. 19164 in 2001–02 to Rs. 92911 in 2011–12, and bypassed the national average growth from 2005–06 onwards. This growth is largely contributed by a rapid growth of GSDP in secondary and tertiary sectors. As a result, the structure of GSDP has changed considerably in the State. The share of agriculture in GSDP declined substantially, by about 15%—from 26% in 2001–02 to 11.2% in 2011–12. The share of secondary sector increased by about 12% from 23% to 35% and that of services sector increased marginally, by nearly 3% from 51% to 54% (Fig. 10.1). The credit for this impressive growth largely goes to the Industrial Policy of Uttarakhand, which provided several incentives to attract private industries to the State.

Uttarakhand has also made tremendous progress in reducing the incidence of poverty among its people. The percentage of poor population in the State decreased to 11.3% in 2011–12 from 31.8% in 2004–05 (Planning Commission 2007, 2014). However, there remain huge income inequalities across the hill and plain districts of the State. Per capita income (measured in terms of per capita net district domestic product) in the Bageshwar district is less than half of that in Dehradun (Fig. 10.2). Per capita income is also much less than the state average in all hill districts except

Fig. 10.1 Sectoral composition of GSDP in Uttarakhand (2002–12) at 2004–05 prices
Source: Author's calculation based on Central Statistics Office (CSO) Data

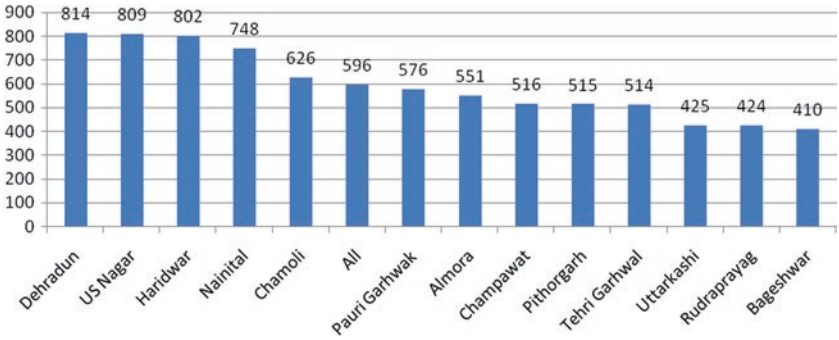

Fig. 10.2 Per capita net district domestic product, 2010–11 (at current prices) (Rs. '00)
Source: *Statistical Dairy Uttarakhand, 2011–12*, Directorate of Economics and Statistics, Government of Uttarakhand

Nainital and Chamoli. The Rudrapryag district also has low income despite having intensive religious tourism. Such income from services is not generally reflected in the district income figures. However, most of the income-generating activities such as industrial units, service, and business enterprises are concentrated in plain districts of the State, whereas the population in hill districts is mainly dependent on subsistence agriculture and allied activities with abysmally low levels of productivity (Mamgain 2004).

According to latest National Sample Survey Office (NSSO) 70th Round (January-December 2013), nearly 72% of net income of agriculture households in Uttarakhand is contributed by cultivation (53%) and animal husbandry (18%). Wages contribute another 22.7%. The corresponding share of income from agriculture at the national level is nearly 60%. In the neighboring state of Himachal Pradesh, the share is about 45%, indicating larger dependence on agriculture and allied activities in Uttarakhand. The average monthly income per agriculture household is low in Uttarakhand (Rs. 4701) as compared with India (Rs. 4923) and Himachal Pradesh (Rs. 8777) (Fig. 10.3).

Although the average income from agriculture is the lowest in Uttarakhand compared with other hill states like Himachal Pradesh and Jammu and Kashmir, the level of indebtedness of agricultural households in the state is much higher than these states and even the average for Uttar Pradesh and All India (Fig. 10.4).

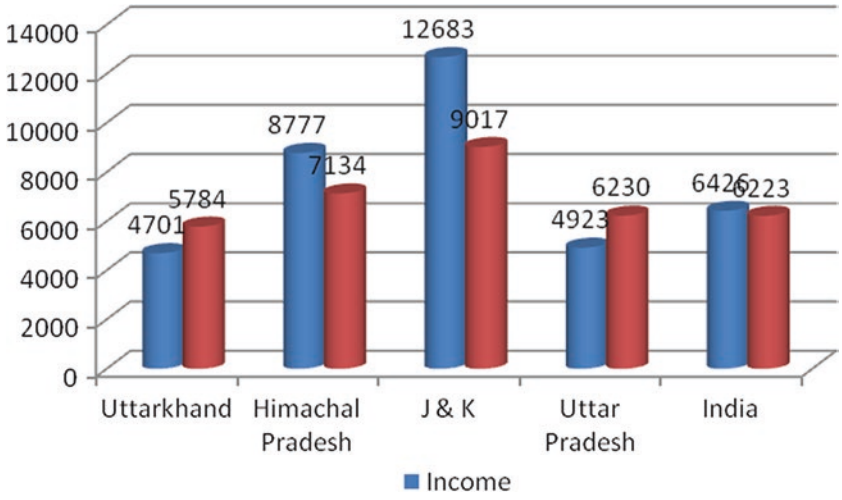

Fig. 10.3 Average monthly income and expenditure of agriculture households (Rs.)
Source: NSSO 70th Round, GoI-NSSO, 2014

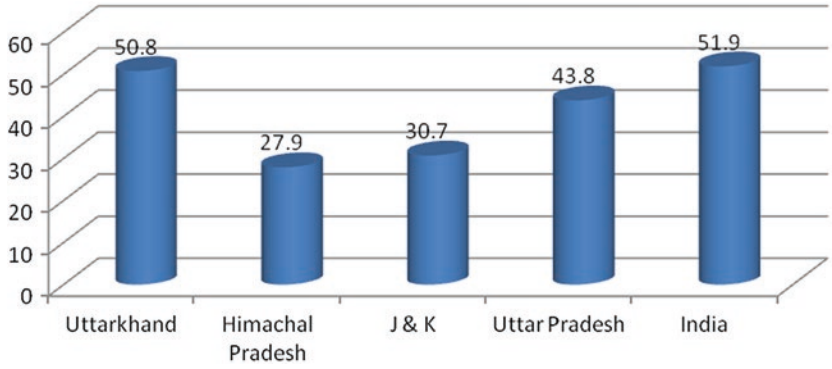

Fig. 10.4 Indebtedness among agriculture households in select states, 2013 Source: NSSO 70th Round, GoI-NSSO, 2014

These results show that those who are dependent on agricultural in Uttarakhand are in a precarious condition that forces them to search for alternative avenues of earning their livelihoods, often forcing them to resort to migration.

Out-migration and Its Magnitude and Impact

Migration is not new to Uttarkhand but its nature, direction, and magnitude have changed substantially. The demography and ethnography of the Hill Regions in Uttarakhand have been influenced by a large in-migration from other parts of the mainland during 11th and 12th centuries and later years (Atkinson 1822–88; Walton 1910). Natives as well as migrants cleared jungles and developed farmland for cultivation through their hard labor over centuries. With the creation of Garhwal and Kumaon army regiments during the British rule, a large number of local youth got regular employment for the first time in the region. This necessitated out-migration of local youth who migrated for a few years but generally returned to their villages after the end of their service tenure. There had been seasonal migration of males from upper hills to clear the jungles in lower Shivalik hills (Walton 1910). This initial exposure to the outside world had a major influence on building acceptance of a livelihood based on migration. The situation has changed substantially in recent decades

with a large portion of the population out-migrating permanently along with families from the Hill Region of the State mainly to eke out their livelihoods and for a better future for their children. This has become a widespread phenomenon in hill districts, resulting in an absolute decrease in population in a few districts such as Almora and Pauri Garhwal and very slow growth in other hilly districts during the last decade.

The Present Study

A number of studies have been undertaken in the past to understand the dynamics of out-migration and its impact on the local economy (see Bora 1996; Mamgain 2004; Awasthi 2012). To understand the recent patterns in migration, we have collected information from 18 sample villages from the Pauri Garhwal and Almora districts covering 217 households during the period of September to December 2013. Our survey results show that as much as 88% of sample rural households reported at least one person migrating for employment from their households. Such a widespread magnitude of migration has been also reported by earlier studies (see Bora 1996; Mamgain et al. 2005; Awasthi 2012) and, of course, has intensified in the last decade. Table 10.3 shows that, out of the total sample population of those seven years and above, about 35% migrate, and the incidence of migration among male members is much higher, at about 50% compared with only about 14% among females. Thus, about 83% of migrants are male.

In agreement with the earlier studies on migration, most of the sample migrants are men, young, and educated and belong to "Other Castes" (OCs) in hill districts of Uttarakhand. Of the male migrants, a highest 51.4% are in the age group of 30–49 years and another 35.5% in the age group of 15–29 years. The percentage of Scheduled Castes (SCs) is proportionately less among migrants. This is mainly due to weak social networks of SCs at the place of destination. However, their proportion has substantially increased in recent years.

A distinguishing feature of out-migration in Uttarakhand is its predominantly longer duration. In our sample, about 90% of out-migrants are longer-duration migrants (Table 10.1). This is contrary to the pattern observed in several studies in other parts of the country which report the preponderance of short-duration migration among the rural households—mostly of a circular nature (see Srivastava 2011; Unesco 2013). This is mainly due to the fact that an overwhelming majority (nearly 74%) of out-

Table 10.1 Magnitude of out-migration

Duration	*Male*		*Female*		*Persons*	
	Number	*Percentage*	*Number*	*Percentage*	*Number*	*Percentage*
Short-duration migration (2–6 months)	36	11.0	3	4.6	39	10.0
Long-duration migration (6–12 months)	251	77.0	35	53.8	286	73.1
Permanent migration (more than 12 months)	39	12.0	27	41.5	66	16.9
Total migrants	326 (50.15)	100.0	65 (13.89)	100.0	391 (34.97)	100.0
Sample population	650	50.2	468	13.9	1118	35.0

Source: Field survey

Note: Figures in parenthesis show percentage of migrants out of the total sample population of 7 years and above

migrants of Uttarakhand have salaried jobs which are generally of longer duration. About 16% of migrants are employed in government salaried employment, and another 12% are students. Another 10% are engaged in domestic work and are largely women migrants. A fairly high percentage of women (nearly 27%) are students. Unlike rural out-migrants from Bihar or eastern Uttar Pradesh, they do not migrate to agriculturally prosperous regions for short-term employment in agriculture (Mamgain 2004). Their relatively better educational attainments have facilitated them to seek employment in regular salaried jobs, though not of high level.

Migrants have comparatively better educational attainments as compared with their non-migrants counterparts. Nearly half among them have high school/higher secondary level education, and another 36.4% are graduate and above (Table 10.2). The inter-social group differences in educational levels are also quite significant; SCs remain much behind their OC counterparts.

Yet another dimension relates to complete out-migration of households from the village. In our 18 sample villages, as many as 253 households have completely out-migrated in Pauri Garhwal and another 245 households in

Table 10.2 Educational level of sample population (7 years plus) by type of household

Educational level		*Type of household*		*Total*
		Migrant	*Non-migrant*	
All	Illiterate	1.3	15.1	10.0
	Up to middle	12.4	45.7	33.4
	High school and higher secondary	49.9	30.3	37.5
	Graduate and above	36.4	8.5	18.8
SC	Illiterate	1.1	19.1	13.7
	Up to middle	23.9	56.9	46.9
	High school and higher secondary	59.1	20.1	31.8
	Graduate and above	15.9	3.4	7.2
General	Illiterate	1.4	13.3	8.5
	Up to middle	9.0	40.5	28.0
	High school and higher secondary	46.7	35.0	39.7
	Graduate and above	42.9	11.0	23.7

Note: Migrant household is defined as a household which has at least one person migrated out for job or education or both

the Almora district over a period of ten years. These numbers constitute more than half of the number of existing households in the sample villages (Table 10.5). One can see a number of locked and depilated houses and barren parcels of erstwhile cultivated land in several villages in hill districts of Uttarakhand. As much as half of the Brahmin households have out-migrated completely from their villages in both the Garhwal and Almora districts. Such a tendency is much less among SC households, mainly due to low level of education and consequent poor incomes from migration.

Migration Process

Migrants heavily depend on social networks and informal channels to seek information about jobs and to obtain recommendations. These largely include friends and relatives who had already migrated to cities. In many cases, village youth travel to the cities where their relatives are living, to seek their support in job search. Support is mostly given by family, friends, and relatives and acts like a spiral with more and more people being helped in their migration by fellow migrants from the village. The form of support

Table 10.3 Number of households who have completely out-migrated during last ten years in sample villages

Social group	*Pauri (ten sample villages) (number of migrants HHs)*	*As percentage of existing number of HHs*	*Almora (eight sample villages) (number of migrants HHs)*	*As percentage of existing number of HHs*
SC	28	25.45	34	20.36
OBC	4	57.14	3	33.33
Other-Rajput	61	42.36	110	35.95
Other-Brahmin	189	54.47	98	50.52
Total	282	46.38	245	36.24

Note: This information is collected from Village Pradhan's records after due cross-checking with the key informants in the sample villages

includes financial help, job search help, food, and accommodation at the initial stages of migration. Such social networks and support are relatively weak in the case of SCs, thereby restricting their mobility. Focus group discussions and key interviews clearly reveal that SCs do proportionately migrate less because of their low educational levels, lack of awareness, poverty, and lack of urban contacts. Migrants belonging to "OCs" may help SC migrants from their villages in searching for employment but will not help them in staying with them and sharing food. Newspapers and internet are also an important source of information for jobs. In some cases, private placement agencies have also helped in getting jobs leading to migration (ICIMOD 2010).

Reasons for Migration

The reasons for migration among the sample households are given in Table 10.4. It is evident that lack of appropriate employment opportunities is the dominant reason. It is followed by better employment and income opportunities and to get employment or job transfer. Acquiring better education and training constituted about 11.51% of the total households. Clearly, lack of employment opportunities is the dominate reason for out-migration from the study area.

Table 10.4 Reasons for migration

Reasons for migration	*Number*	*Percentage*
Got employment/Job transfers	68	17.39
In search of better employment and income opportunities	73	18.67
Lack of appropriate employment opportunities	184	47.06
Education and training	45	11.51
Others	21	5.37
Total	391	100.00

Source: Field survey

Contribution of Migration to Household Income

Migration makes a significant contribution to household income in Uttarakhand. Owing to this, some scholars termed the mountain economy of Uttarakhand a "money order economy" (Dobhal 1987; Dhyani 1994). However, later studies (Mamgain et al. 2005) argue that remittances are critical but no longer significant in the hill economy of Uttarakhand to generate multiplier effects. These contribute about 26% of a migrant household's income. They are particularly crucial in poor and relatively low-income households as they increase their income by nearly 50% and 38%, respectively. If we include the income from pension, which of course is income largely from return migration, the household income rises by nearly 40% (Mamgain et al. 2005).

The average annual amount of remittance per remitting migrant worker is nearly Rs. 16,000 as per our survey results. The amount of remittance, however, varies significantly across various groups of migrants. Understandably, the average amount of remittance is comparatively higher in the case of older workers, those who migrate for shorter duration, and those belonging to SCs. Most strikingly, migrants with graduate and above education remit the lowest amount of remittance back to their villages. Such migrants increasingly tend to migrate along with their families and thus, unlike their other counterparts, do not have to remit. It merits mention that the overall flow of remittance money to the villages is also decreasing over the years as large number of migrants are completely moving away with their families.

Do all migrant workers send remittance back to their villages? Our survey results show that nearly 60 of migrant workers send remittances.

Similar observations have been made in earlier studies (Mamgain 2004; Awasthi 2012). These studies show how the propensity to remit is comparatively much higher among SCs, middle-aged workers, and those migrating for shorter durations. The propensity to remit is least among the permanently migrated workers and those with a higher level of education. Notably, the tendency to migrate permanently is strong among graduate migrant workers, as is evident from the fact that 39.1% of them have permanently migrated while it is about 13% among other workers (Mamgain et al. 2005).

The reasons for not remitting among the migrant workers may be threefold: (i) sufficient income of the households at their place of origin to meet the basic requirements; (ii) very low earnings of migrant workers making it difficult for them to save any amount for remitting money, as is the case with most of the newly migrated workers; and (iii) inclusion of family members among the migrants, thus prompting migrant workers to reduce the proportion as well as the frequency of remittances—this applies to those migrant workers who are better educated and have comparatively higher income levels. Studies show that an overwhelming majority of out-migrant workers are employed in low-paid salaried jobs, which makes it difficult for them to remit in larger sums. The inflationary pressures in recent years have also seriously eroded their remitting capacities.

Thus, in a situation where nearly 70% of migrant workers are in low-paid petty jobs, more than one third are semi-literate and most of them are unskilled, in spite of their high propensity to remit, the overall earnings and remittances of such migrants are extremely low.

Impact of Migration on Village Economy and Society

How has out-migration impacted the places of origin? The neo-classical economists argue that migration improves the income and standard of living of source areas in several ways. The remittances received in source areas generate demand for goods and services in that region which further improves employment and income opportunities. Migrants also bring with them new knowledge and technology which they use in their native place (Lewis 1954; Fei and Ranis 1964; Stark 1991). However, there are mixed experiences of such positive impacts as emerge from our field observations. In the case of villages in the Hill Region of Uttarakhand, migration has made a tremendous change in consumption pattern, which has shifted from the traditional food habits based on coarse *bara naja* (twelve

grains) to wheat and rice as in other regions of India. Although people do cultivate ragi (finger millets) and millets, these are now mainly used as animal feed. Alcoholism among male youth is widespread and has become a major social concern.

Almost all remittance-receiving households (more than 91%) spend most of it to meet their daily consumption requirements (Table 10.5). More than 60% of such households use remittance money for education- and health-related expenses as well. Only over one tenth of households use the remittances for paying the labor charges in their agriculture. There are about 5% of households who use remittances mainly for the education of their children. None of the households uses remittances in activities such as non-farm business development. Thus, remittances are hardly able to generate any multiplier effect at the village economy level except for opening up of a few grocery shops to serve the consumer demand. Moreover, the consumer items sold in grocery shops are mostly procured from outside the hill region. Even vegetables and milk and milk products, which were earlier available within the villages, are being procured from plain areas of the State. Thus, remittances used to finance such consumption are again ploughed back to plain areas and thereby are unable to create any multiplier impact in the local village economy.

People have abandoned their farmlands in large number, which had been developed by their ancestors with their hard labor over several years. This is a common scene in districts like Pauri and Almora. In some villages, over half of the erstwhile cultivated land is lying barren. Given the alternative, every able-bodied person of the village, particularly young

Table 10.5 Use of remittances

Use of remittances	*Percentage of households*
Basic consumption need	91.8
Education of children	60.1
Health care	64.3
Payments for labor and other costs relating to agriculture	12.2
Repair of house	8.2
Purchase of consumer durables	2.0
Payments of loans	3.1
Purchase of land	2.0

Source: Field survey

ones, would like to discontinue his or her farming-based livelihoods. In several parts of hill regions, even irrigated parcels of land have been abandoned because of huge out-migration. The reasons for such disenchantment include very low productivity of agriculture, increasing menace of wild animals (like monkeys, wild boar, and bears) in destroying crops, and practically no technical know-how and support to diversify agriculture. Moreover, it has become increasingly difficult to find labor for ploughing, leading to very high charges for such labor in many villages. This has again dissuaded villagers to cultivate their land.

The magnitude of out-migration is so huge that there are several ghost villages left with very few old people (Umar 2012). In Pauri Garhwal, the identities of many villages are saved by one or two people who still live there (Trivedi 2012). The names of such villages may be lost to the world soon. The barren fields and ruined houses tell the tale of the sad exodus. The condition of those living back in such villages is pathetic as they face huge social marginalization by their own kith and kin, who hardly visit them. Sometimes, it is difficult to manage a couple of people for the last rites of a dead person in such villages.

Out-migration has also marginalized the political voices in the rural areas of hill districts in Uttarakhand. The majority of the legislative assembly seats have now been shifted to plain districts of the State after the delimitation exercise of 2008. Local Members of Legislative Assembly/Members of Parliament hardly take interest in the development of local resource development, including agriculture. On the contrary, the level of political interference with primary motives in the functioning of development agencies has increased manifold, thus adversely impacting the development projects for the villages. While public works go a begging because of a shortage of labor, people of Uttarakhand Hills are migrating largely due to lack of appropriate employment that is preferred by the educated, who are not ready for physical labor, including agricultural work.

Owing to huge migration of educated youth, voices of villagers in local-level Gram Panchayats have weakened. Many such Gram Panchayats are unable to adequately represent their demand for the development works and other services in the villages. Their voices are hardly listened to either by politicians or by development agencies. The positive development of such migration relates to increasing importance of SCs in the political economy of Hill districts with a certain increase in their proportion in population (19.8% in 2001 to 20.9% in 2011). Owing to political empowerment of these groups, the forms of untouchability no longer remain as severe as they were a few decades back.

With the increasing penetration of market forces coupled with out-migration, social institutions in the villages have become weak. A new class of political leaders, contractors, and government officials is growingly defining the new boundaries of "class" in these villages. Most of them have settled their families in relatively better places like Dehradun and Haldwani in plain areas of the State. However, they continue to dominate in decision making in the village.

Youth power is becoming growingly idle and inactive in the Hill Region because of a lack of employment opportunities outside agriculture and a lack of any vocational guidance and training. They are least interested in taking up tedious agricultural work in their fields. In some places, their fields are being cultivated by Nepalese for vegetable production to cater to the local market. Notably, these Nepalese laborers give a nominal amount as rent to the villagers. Owing to the neglect of government schools and deteriorating standards, local youth who traditionally found their place in the armed forces are not able to compete. Many of them are not inclined to migrate, and with hardly any local work opportunities the youth are falling prey to all kinds of vices. Gambling and addiction to liquor are on the rise among youth. There is a huge obsession for salaried jobs irrespective of quality and tenure—expectations of people have risen to avoid a hard life without any commerservate increase in capabilities. Added to this are high risk and uncertainty associated with starting self-employed ventures outside agriculture.

Despite better educational levels, youth hardly possess any skill training. Most of the skilled/semi-skilled jobs are being undertaken by laborers from outside the State, even from far-flung areas of Bihar. Unskilled casual wage works thus do not attract local labor, which is more irregular and short in duration. As a result, there are often labor shortages to complete public works. "If government establishes skill development centers and improves education and the healthcare system, things will dramatically improve", as suggested by respondents in villages of the Takula block in Almora. However, there are good examples, like Gadola village in Rudrapryag district), of youth taking up commercial farming. This could be possible because of better quality of land, better extension services, and good access to market resulting in remunerative farm income.

Many migrants would like to return to their villages provided that they get employment outside agriculture and at the same time better services of education, health care, and other basic amenities within or nearby their villages. A major issue is the high rate of absenteeism among school teach-

ers and health-care workers and other line department officials responsible for village development. There are hardly any livable places for government employees nearby their places of work such as schools or health facilities. This forces them to travel a distance of 25 to 50 km daily, partly by bus/taxi and partly on foot, to reach the distant market towns where they prefer to live because of the basic facilities. This long commuting leaves them with less time to their work.

Impact of Migration on Women's Work

Migration as a labor reallocation process is expected to improve the overall income levels of households. With the improving income levels, a household has a choice between work and leisure. It is postulated that household laborers would withdraw themselves from activities with zero marginal productivity and would rather choose leisure with the improving income levels either through remittances or increase in productivity. Thus, it is expected that women in households receiving remittances in the Hill Region would have withdrawn from tedious activities such as cultivation and animal husbandry. Are women better off with reduced drudgery and more leisure because of remittances? To understand this phenomenon, we have used the time use data collected for this study for both men and women in the working age group of 15–59 years. It emerges that remittances per se have not reduced the workload and related drudgeries of women in the population.

The workload of women belonging to migrant households remains almost similar to their counterparts belonging to non-migrant households. All able-bodied women work an average of 8 to 10 hours daily in various productive activities, such as cultivation, fodder collection, fuel collection, and animal husbandry, apart from cooking of food and care of children and old people in their households. About 4 to 5 hours of a hill woman are spent in farm-related work, animal tendering, fuel wood collection, and fodder collection. Next, important activities are cooking food and cleaning the home and utensils, which take about another 2 to 3 hours daily. In many cases, migration has in fact overburdened women as they have to undertake those activities which were being performed earlier by their spouses, like working in agriculture and Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) works. Women share over half the MGNREGA employment. The burden of cooking and other domestic chores gets reduced for women in joint families where older

women take care of cooking and animal-tending activities. Contrary to this, their male counterparts work daily for about 4 hours, mainly undertaking ploughing, leveling, and repair of their fields and sometimes collection of fuel wood. The gender differences in workload are so sharp that even a girl going to school has to share tasks related to the farm, animal husbandry, fuel, and fodder collection with her mother more frequently than her brother. Girls hardly find any time to devote for their studies at home. Many of them would like to pursue higher studies. But their parents are unlikely to support them and this is partly due to the weak financial position of households and partly due to passiveness toward girls' education. Such gender discrimination severely affects their studies and future.

In brief, an overburdened woman is a widespread phenomenon across villages in hill districts in Uttarakhand. They are the backbone of hill society yet remain most exploited, marginalized in household decision making, and governed by complex traditional cultural norms and practices (IHD-IFAD study 2011). Remittances, though, have ameliorated their economic condition to a certain extent, but their work-related drudgeries remain almost unchanged. This is because remittances are not sufficient to meet the household requirements, whereas farm-related activities still provide some additional economic support to such households for a few months. Thus, women's contribution is very critical in supporting household well-being, more so in migrant households in the hill districts of Uttarakhand.

Fear of exclusion from mainstream development processes are looming large among those who have remained behind in their villages. Their major concerns are education of children, old-age care, good health facilities, access to quality physical infrastructure, and, above all, remunerative income opportunities outside of agriculture.

In brief, factors that lead to out-migration are uneconomical land holdings, improved educational levels, lack of employment opportunities in and around the villages, and rising aspirations of youth. Social pressures to out-migrate, such as the stigma of being in the village and working in the fields, particularly for males, are also growingly, becoming important in the case of male members of the family (Mamgain 2004). The obsession of hill society for regular/secured jobs irrespective of salary and working conditions has been built over the years because of growing vulnerability of rural households to income fluctuations—and that too at the cost of hard labor which they have to put in farm-based activities.

It is believed that owing to lack of any policy and program for attracting the skills and abilities of return migrants, a large number of out-migrants tend to settle permanently outside their villages along with their households. This has increased the tendency of out-migration of an entire household. The migration has also adversely affected the source areas in terms of loss of educated and experienced human resources, which otherwise would have been used locally (Mamgain 2004). The increased migration process in Uttarakhand's hill districts thus could hardly transform the local economy in the form of increased flow of remittances as has been seen in Kerala and, to some extent, Bihar (Deshangikar and Farrington 2009).

At the same time, there is evidence to suggest how farm diversification in the Rawain valley in the Uttarkashi district has transformed its local economy with the help of local development agencies and government support. Evidence also suggests the role of non-governmental organizations (NGOs) in promoting cooperatives of small and marginal farmers in hill districts of Pithoragarh and Champawat and reducing their vulnerabilities (CBED 2012). These experiences have an encouraging impact on the local economy in a form of reduced out-migration of semi-skilled and unskilled persons from marginal cultivating households associated with their improved earnings.

To conclude, poor resource base for livelihoods with least information of modern technical know-how to improve income opportunities is a common feature for rural households in hill districts of Uttarakhand. The uncertainties in land-based production activities along with poor productivity levels have forced most of the rural households to resort to migration.

Policy Initiatives

Development of hill areas has long been a policy priority in the national planning process. For the first time, a Special Hill Area Development Programme was initiated in Sixth Plan period for the development of hill regions in the country and continued in subsequent plans. The State was accorded a Special Category Status in 2002 by the Planning Commission. It undertook several policy measures and programs for the development of Uttarakhand. Some of the initiatives by the Government of Uttarakhand are critically examined in the following sections.

The Industrial Policy of the State provided several incentives to attract industries in the form of tax concessions, industrial plots, and other basic infrastructure. As a result, there has been tremendous progress in industrial development in the State. The number of industries registered under the Factories Sector Act increased by over seven times from 698 in 2001–02 to 2,843 in 2011–12. Employment in these factories jumped over 8.4 times from 40,880 to 342,385 during this period (CSO, Annual Survey of Industries [ASI] data).

Unfortunately, the industrial development policy of the state remained lopsided in favor of plain areas of the State. Since the Industrial Policy of the State could hardly benefit hill areas, a separate Hill Industrial Development Policy was announced in 2008 for 10 years to attract industries to hill districts. However, this policy was almost a non-starter until 2011, when the Government of Uttarakhand amended its 2008 policy and extended its incentives like up to 90% tax rebate, transport subsidy, and rebate on power tariff until 2025. It also decided to set up 11 industrial hubs at district headquarters. With initial hiccups, the policy has started attracting the industries and investment in the State but not on a desired scale. During the period from 2008 to June 2012, an investment of over USD $66.4 million had come to the State. The policy had also facilitated the creation of over 3,000 small (mainly micro) units and provided employment for over 10,500 people. Micro, Small & Medium Enterprises (MSMEs) were mainly created in the herbal products, floriculture, flour mills, handlooms, mineral water, pharmaceuticals, auto repair, and steel fabrication. From April 2012 to November 2013, 763 new units were set up, attracting investments of USD $11.6 million and employing a total of 2,690 people (India Brand Equity Foundation 2014). There are several issues related to creation of quality infrastructure, such as roads, buildings, and power supply, which need to be addressed.

The State Government launched the *Veer Chandra Singh Garhwali Paryatan Swarozgar Yojana* for promoting tourism-related enterprise development. This is a credit-cum-subsidy scheme under which assistance is given for fast-food centers; setting up of retail outlets for local handicrafts, transport, motels, hotels, and equipment for adventure sports; and setting up of tourist information centers with personal computers, restaurants, and so on. However, the potential of tourism and related activities has yet to be harnessed for the creation of employment and income in the hill districts of Uttarakhand. At present, most of the tourism is religious in nature, which has also been severely damaged because of the disaster in

Kedar valley in June 2013. There are several places and locations in hill districts which are yet to be explored and developed fully for attracting tourist inflows to the region. There are serious lacks of good quality road connectivity, suitable accommodation, drinking water, and trained human resources. Equally important issues that hinder the effective marketing of the State as a tourist destination are lack of awareness of Uttarakhand as a tourism destination; ineffective branding of the state; lack of a marketing strategy and expensive annual campaigns that are not sufficiently focused; development and operational issues; awareness of the scheme among the locals; lack of skill development facilities; and the virtual nonexistence of public-private sector coordination.

For improving employment opportunities in Uttarakhand, both centrally sponsored self-and- wage employment programs are implemented in the State. The experience of implementation of a wage employment program, namely MGNREGA, is mixed one, although employment was provided to almost all demanding households. However, it could provide about 41 days of employment as against the guarantee of 100 days. Only 7.1% of rural households could avail 100 days of employment under the scheme during the year 2013–14. About half of employment generated was performed by women in the Hill Region, whereas in Plain Region, the share was less than 23%. The implementation of MGNREGA in Uttarakhand is being criticized by the villagers because of the irregular availability of work and delays in payment of wages. In some cases, works under MGNREGA are also being completed by hiring labor from outside the village.

The experience of Swarnjayanti Gram Swarojgar Yojna (SGSY) and its recent format, National Livelihood Mission (also called Aajivika Mission), in the creation of self-employment has been mixed one. The implementation of the State Rural Livelihood Mission was started with the primary objective of reducing poverty by enabling the poor households to access gainful self-employment and skilled wage employment opportunities, resulting in appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots institutions of the poor. With the financial support of the International Fund for Agriculture Development (IFAD), the Government of Uttarakhand implemented a project called Uttarakhand Livelihoods Improvement Project for the Himalayas (ULIPH) in five hilly districts of Almora, Bageshwar, Chamoli, Tehri, and Uttarkashi, covering 959 villages across 17 Development Blocks. The program was found to be successful in improving farm productivity and ensuring food

security and access to markets and access to credit to rural households. Considering the effectiveness of the previous livelihood program, the IFAD supported another project, called Integrated Livelihood Support Project (ILSP), by supporting producer organizations with technology and access to markets to improve food security and livelihoods in 13 Development Blocks. It also supports rural tourism and skill development for remunerative employment. However, such interventions are not widespread and could hardly make a major impact on improving income levels of rural households in the Hill Region. Despite comprehensive organizational structures and targeted programs initiated over the years for agriculture and horticulture development, the position of agriculture and horticulture development in the Hill Region could not improve at the desired levels. In our sample villages, there is hardly any evidence of use of better farming practices in crop production, horticulture, poultry, dairy, and fishery production. This is mainly due to lack of agricultural extension services available to villagers to improve their farm practices and productivity. Hardly any upscaling efforts are being made to improve farming practices and small enterprise development to a large part of the Hill Region.

Concluding Remarks and Policy Issues

The overall growth path of Uttarakhand has been impressive since its separation from Uttar Pradesh. However, this growth has created huge regional inequalities within the State. The growth process could hardly create productive employment and income opportunities in the Hill Region of Uttarakhand. There is hardly any visible progress made toward developing remunerative agriculture in most of the villages in the Hill Region.

As a result, there remains hardly any interest in agriculture for almost all young menfolk because of the hard work involved, very low productivity, and frequent destruction of crops by wild animals. Outside agriculture, employment opportunities in construction though grew significantly, but local people are mostly unwilling to undertake such manual work.

Their access to skilled jobs in construction sector was severely affected because of lack of such skill training. The employment opportunities in other sectors such as trade, transport, and government services, though, improved in the Hill Region but remained limited to few people. Thus, lack of remunerative livelihoods coupled with obsession for salaried jobs has forced a large number of youth to migrate to cities in search of salaried jobs which are of relatively longer duration irrespective of earnings. The

situation has become quite grim in some pockets as there are few people left in a number of villages. Such destitution needs to be reversed.

The policy framework for the all-round development of the Hill Region of Uttarakhand is comprehensive and appreciable. However, the New Industrial Policy of the State, which has almost remained ineffective in attracting investment to hill areas of the State, needs to be re-examined and made more effective to ensure balanced industrial growth by attracting more capital to backward districts, particularly the hill areas. The persistent bias in credit flow for priority sectors is yet another example where the banking sector prefers to finance only developed districts and is hesitant to take risks in the hilly districts. In this process, the gap in development is bound to widen. As a result, there is hardly any visible progress made toward developing remunerative employment opportunities in farm as well as non-farm sectors in most of the villages in the Hill Region.

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Suggestions made by villagers toward improving employment opportunities and quality of life include a plethora of issues and areas which require immediate policy interventions. These include consolidation of farmland; diversification of crops toward high value and less irrigation intensive crops; better research and development of agricultural extension services; improving access to markets for farm and non-farm produces; promoting village tourism, drinking water, road connectivity, a quality education infrastructure such as residential schools and skill development centers in every block, quality health services, and mobile services for health check-ups; and promotion of village level organizations for development. These would require multi-disciplinary innovative institutions for the development of the Hill Region.

Our field experience in rural areas and discussions with various line departments of the State government indicate that there is a big gap between the productive employment needs of rural households and the efforts that are being made by the government toward this end. The huge potential of horticulture and tourism needs to be developed on a wider scale in the Hill Region. Agriculture extension services need to be strengthened to improve their outreach and effectiveness. Various forms of tourism as outlined in the Tourism Policy of the State need to be developed in

letter and spirit in a given time frame. This will create a large number of employment opportunities for local youth and arrest their distress-driven migration. Similarly, given the relatively higher educational levels of the Hill population, expansion of communication network, better electricity, and comparatively cheap land, there is a good scope for developing knowledge-based information technology services in Hill districts.

Toward harnessing the potential of employment opportunities, skill development of both men and women is crucial for various trades and occupations. Most of the people, including migrants of the Hill Region, though, are better educated but lack skill training. This severely affects their employability and earnings. This would require their training in a larger proportion in different vocations. The skill training measures need to be generic as well as area-specific depending on the choices and opportunities for such skills.

With the growing emphasis on the protection of the environment in the context of climate change, the role of hill and mountain regions is being seen very critical toward this endeavor. In this direction, the Eco Task Force could be created along the lines of the Territorial Army by recruiting local people, whose services can be used in forestation and its maintenance. This will not only help in improving environment but also provide salaried employment to local youth.

There are encouraging examples of promoting sustainable livelihoods, linking these to value chains, and improving quality of life of rural areas in the hill districts, being undertaken by various government agencies, bilateral donors, and NGOs. A study by ICIMOD (2013), demonstrates tremendous opportunities for income-generating activities in both farm as well as non-farm sector through value chain development of high-value products and services in hill regions. In this entire process, the role of local communities is of paramount importance for upstream interventions. Equally important is improved access to information, skills, technology, markets, policy and institutional support leading to better terms of engagement for small producers (p. 32). Policies need to be implemented fairly or developed (or both) with a pro-poor and mountain bias. Institutions responsible for the implementation of such policies must be pro-active and develop synergy and coordination to avoid conflicts and produce better results. Mobilizing and empowering communities with information, skills, and support services are of paramount importance.

In sum, the programmatic interventions must support the higher growth initiatives in the Hill Region of Uttarakhand which has yet to wit-

ness a remarkable improvement in employment and income opportunities for their population. These efforts must also percolate to the poor and marginalized sections of society, such as SCs and religious minorities. The development dreams of people of Uttarakhand, as they visualized at the time of demand for a new State, particularly those residing in hill districts, must be addressed on a priority basis. In fact, there is need for a strong political will to initiate a process of niche-based development strategy for the hill areas of the State with a strong support of bureaucracy. The myopic vision of developing already-developed regions will not prove to be an inclusive strategy. This will also not be a tribute to those who sacrificed their lives for making Uttarakhand a State of their dreams where everybody gets decent work opportunities with the least brain drain.

The non-resident Uttarakhandis (NRUs) can play major role toward promoting the overall development of the State. They can be role models for resident Uttrakhandis in their specialized fields. There is a need to promote region-wise *melas* relating to development issues concerning people in various fields such as education, skill training, career counseling, health care, governance, right to information, development debate, networking, promoting cultural heritage, and technology knowledge. In fact, they can act as "Watch Pole" on government policies and programs through their apex umbrella organization. NRUs can help in developing and strengthening several voluntary organizations related to their respective fields of knowledge and expertise. In fact, they can adopt certain villages and initiate a development process therein. NRUs can also support the poor children of Uttarakhand in their studies by establishing fellowships.

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CHAPTER 11

Migration and Household Labor Use for Adopting Climatic Stress: A Study of Drought-Affected Areas in Odisha

Basanta K. Sahu

Introduction

With recurrence of drought with rising unemployment and uncertain production conditions in agriculture, many rural poor are likely to face more challenges regarding their livelihoods, labor use, and risk coping. The rural poor follow several tools to cope with drought-induced shortfalls in crop production, employment, income, and consumption but fail to succeed. Under this condition, they may try to diversify their resources, particularly family labor, and adjust consumption, expenditure, farming, borrowing, asset holding, use of common properties, and participation in public programs and so on. Rural households coping with drought in some semi-arid areas were found to be in distress situations led by casualization of rural labor and out-migration (Sahu 2014). Public employment programs like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) aim at providing employment to the rural poor and others often were found not to be adequate. Under this condition, it

B.K. Sahu (✉)
Indian Institute of Foreign Trade, New Delhi, India

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would interesting to analyze the changes in nature and pattern of rural labor use and its implication on households, particularly in drought-prone areas, which have been areas of interest for researchers and others. It is also important from a development policy perspective of rural and regional development and employment programs like MGNREGS, Drought-Prone Area Programme (DPAP), and Desert Development Programme (DDP).

Drought-driven frequent crop failure and loss of farm employment and other land-based activities have a profound adverse impact on rural households in both the short term and the long term, such as (a) reduction in food consumption, (b) decline in employment and income, (c) poor health status, (d) increase in child labor, (e) increase in informal borrowing and distress sale, and (f) out-migration. While all of these drought-induced adversities can affect a household's resource use, consumption smoothing, risk coping ability, and so on, it may block the poor from moving out of poverty.

In the background of rising drought events and expansion of public employment and asset creation programs like MGNREGS (Bhatia and Dreze 2006; IAMR 2008; Jha et al. 2009), we try to analyze some major changes in household labor use and coping with drought where any additional employment and income, irrespective of sources, are explored by the poor. In other words, household drought coping may have different consequences on labor uses. In this regard, it is reasonable to assume that households will try to diversify their labor and other resources to reduce drought-induced scarcities but all may not succeed in a similar way and there would be different impacts in terms of intra-household risk coping, gender relations, social-economic conditions, and so on which will further influence household decision making across regions and social groups. Despite public interventions, rising scarcity and labor migration in many drought-affected areas have drawn the attention of researchers and policy makers. The sync between macro-level policy intervention and household- or community-level drought coping seems missing or not very effective. Our analysis, therefore, is focused on household drought coping behavior in terms of labor use, migration, borrowing, and risk sharing in different contexts to highlight some changes across regions and social groups.

Drought, Agriculture, and Labor Migration in Odisha

Despite high average annual rainfall, Odisha has been progressively a drought-prone region in the country, where agriculture disproportionately accommodates rural poor, women, tribal, and other weaker sections. During the last three decades, Odisha has experienced drought almost every alternate year, including four severe droughts and ten moderate droughts. On the other hand, Odisha has become one of the major states that are a source of rural labor migration and the trend is rising from both developed irrigated coastal areas and backward dry and tribal areas of the state. The United Nations Development Programme-Human Development Report (UNDP-HDR) report says that about 9 lakh migrants are alone in Surat in Gujrat, and an international non-governmental organization (INGO) study suggests that 2 lakh people from western Odisha seasonally migrate to the brick kilns in Andhra Pradesh. Labor migration in the state varies from rural to rural, rural to urban, and inter-state migration. The inter-state and inter-district migration are considered the high chunk of labor migration. It appears that drought incidence and labor migration in Odisha have some region- and group-specific features but they have not yet been analyzed adequately.

A drought year not only affects the current year's consumption and employment but also continues in subsequent years. Under existing agrarian constraints, rising cost of cultivation, and lack of dependable sources of water, even subsistence and small farming become challenging and often unviable. Under this condition, rural households would try to explore all possible avenues outside farming, such as non-farm activities, seasonal work, migration, public relief programs, and so on, and it is possible that some poor may get pushed to follow much harder employment-income-expenditure strategies based on their risk priority and coping tools. Using household-level data, we have tried to analyze the nature and pattern of household labor use changes and coping with the variability of the weather shocks like drought across regions and social groups.

At the outset, it may be noted that labor migration here covers mostly circular migration of rural labor seeking short-term or seasonal employment (up to 8 months). Furthermore, labor migration as a household strategy during a stress period is mainly an ex-post coping strategy. Here, mainly we try to analyze and understand household drought coping and

the links, if any, with labor use, migration, borrowing, and gender at a sub-regional level. The focus is on understanding the complexity of household labor allocation strategies, particularly during climatic stress, often not captured by national statistics.

Objectives, Methodology, Data, and Introduction to Study Areas

a) Understanding the nature and pattern of drought impacts on household and their drought coping in different regions.
b) To analyze the impacts of drought on household labor use, migration, and other coping strategies: consumption, expenditure, borrowing, asset holding, and gender.
c) To highlight inter-links between labor migration and access to credit and household borrowing.

The selection of study villages—two each from two study areas (Turekala in the Bolangir district and Rajnagar in the Kendrapada district)—was based on the nature of agriculture, sources of water and irrigation, the nature of non-farm activities, drought proofing, MGNREGS, and so on. Bolangir is one of the most backward districts in the country and is a highly drought-prone region despite a high average annual rainfall and other natural resources. On the other hand, Kendrapada is an agriculturally progressive district but farming has been much riskier because of the increasing frequency of flood and drought in recent years. In both of the study areas, farming households are vulnerable to frequent weather-based shocks and there are marked inter-district differences in terms of resource base and uses, public intervention, labor migration, and other socio-economic factors. In the absence of reliable drought forecasting and a long-term drought policy, both of the study areas appear affected by drought. With increasing variations in employment, income, and expenditure, many poor farming households seem more vulnerable to covariate and idiosyncratic risks (Fig. 11.1 and Table 11.1).

Drought Impacts and Household Coping Strategies

The occurrence of drought has direct and indirect impacts on production, employment, income, consumption, expenditure, accumulation, and entitlements, but they may vary depending on the frequency, intensity with

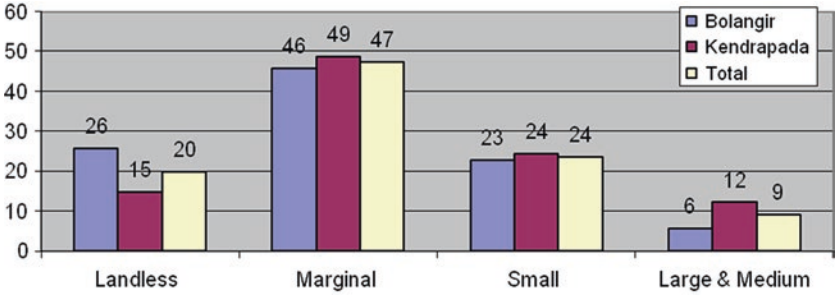

Fig. 11.1 Distribution of share of sample households by land size classes in study areas

Table 11.1 Basic features of study areas

Districts	*Blocks*	*Drought intervention*	*Regions*	*Type of irrigation*	*Major NREGS work undertaken*
Bolangir	Turekala	DPAP	Tribal (backward)	Community (Pani-Panchayat)	Road, water, land development
Kendrapada	Rajnagar	DPAP	Non-tribal (developed)	Community (Pani-Panchayat) canal, river	Irrigation, flood drought proofing fisheries, sanitation

social structure (class and caste), regional development, and other factors. At the household level, drought impacts are broadly classified as economic, production, income, and consumption shocks in Ethiopia (Dercon et al. 2005), Malawi (Malawi Government and World Bank 2006), and Tanzania (Christiaensen and Sarris 2007). Before analyzing different impacts of drought, we have thrown some light on household understanding and experience with droughts in the study areas which were found to be very different with diverse coping strategies and capabilities. Given the diverse agro-climatic condition and overall development scenarios in the study areas, the nature and severity of drought impact on the household labor use and its coping strategies are expected to be different.

Table 11.2 Overall impacts of drought at household

	Bolangir	*Kendrapada*
Loss of farm employment	21.3	30.1
Migration	28.2	22.1
Food scarcity	6.3	6.0
Water scarcity	10.1	0.0
Decline in non-farm activity	3.2	15.6
Reduction in food expenditure	10.5	14.5
Rise in borrowing	20.0	7.1
Health problem	1.3	1.2
Other	0.0	4.2

Source: Field survey

Data in Table 11.2 highlight major drought impacts broadly defined as the proportion of households affected by different types of drought-induced shortfalls and scarcity. Droughts affect almost all groups but with different intensity depending on household and local characteristics and capability to cope. While loss of employment, migration, borrowing, and reduction in consumption expenditure were found to be major drought impacts in both of the study areas, the decline in farm and non-farm employment in non-tribal areas might result in high labor migration. It may be noted that seasonal migration was found to be common in tribal (Bolangir) areas even during a normal year because of inadequate local avenues. But the trends were found to be different during a drought period with acute shortages of employment, food, water, fodder, and other basic necessities such as a wider public food supply program.

Loss of agricultural employment found varies according to the intensity of the drought. Interestingly, that loss of employment in tribal areas was not found to the extent that it was in non-tribal areas may be due to subsistence farming and single-crop practice in tribal areas. However, the situation in tribal areas looks worse in terms of involuntary labor migration among landless and poor households who could not afford to be unemployed. On the other hand, the high incidence of labor migration reported in non-tribal areas was mainly to maintain a certain average level of income and consumption flows rather than a reflection of typical distress labor migration. However, in both of the areas, household labor diversification in terms of out-migration, work at lower wages, or engaging in multiple low-return activities was found to be common during drought.

Similarly, the adverse impact of drought on livestock was found to severely affect the rural household in four major ways: (i) poor health of animal and high mortality, (ii) shortage of fodder and decline in productivity, (iii) decline in market value of livestock, and (iv) loss in fertility. Cattle were abandoned because of very low value and shortages of water, fodder, and animal care. High-value animals like buffaloes could not be sold during drought, and the owners suffered major losses. A decline in access to common resources further augments livestock adversity during drought. Large numbers of death of high-breed animals, those failed to adjust with local environment also reported. Increasing livestock maintenance cost and recurrence of drought were found to be key factors for no or low size livestock holding in the study areas despite its high return. In the next section, we will discuss how public employment and food programs in both of the study areas fail to compensate for the loss of household employment.

Loss of Crop, Employment, and Income During Drought

Although it is difficult to estimate the exact loss of employment and income at the household level, we tried capture the nature and trends in our study areas with relative measures. An earlier study (Pandey et al. 2007) estimated drought-induced crop loss in Eastern India to be around 80% and the loss of yield rate of rice to be between 25% and 40% in Jharkhand and Odisha. We tried to estimate an approximate range of the crop loss and fall in income and employment in the study areas. It may be seen in Table 11.3 that almost all households in the study village in the tribal area (Bolangir) reported crop failure and that half of them experienced sever employment loss (>50%) whereas three fourths of sample households in the non-tribal area (Kendrapada) reported lesser crop loss. This is mainly due to the availability of alternate water sources and provision of life-saving irrigation. Interestingly, the range of employment loss in the tribal village found to be lower may be due to low-level traditional activities that do not require much wage labor even during a normal period, unlike the case of the non-tribal village. As expected, the extent and severity of loss of income among the small and marginal farming households were reported to be higher compared with the large and medium farmers in both of the study villages.

Table 11.3 Drought-induced loss of crop, employment, and income in study areas

	Drought year (2009–10)		*Deviation from normal year*	
Household reported loss and range of loss	*Tribal area (Bolangir)*	*Non-tribal area (Kendrapada)*	*Bolangir*	*Kendrapada*
Crop loss (% HH)	100	75	60–75	25–50
Average <25%	15	35		
Medium 25–50%	32	35		
Severe >50%	53	05		
Employment loss (% HH)	65	52	35–60	45–70
Average <25%	05	25		
Medium 25–50%	10	15		
Severe >50%	50	12		
Income loss (% HH)	85	56	50–75	30–5
Average <25%	10	45		
Medium 25–50%	10	11		
Severe >50%	65	0		

Source: Field survey

The estimation of average production and productivity loss due to drought in the study areas is presented in Table 11.3. The losses in crop yield were estimated to be in the range of 25–75%. In a few cases, it was more than 75% in tribal areas. In non-tribal areas, about 41% of households reported crop failure but the severity of crop loss looks high in irrigated areas as 59% of households had losses in the range of 25–50% due to yield loss in combination with a reduction in crop area. It may be noted that loss of crop output is mainly due to decline in productivity not the cropped area in irrigated low land areas with some provision of critical life-saving water arrangement while in the dry tribal and upland areas it is mainly decline in crop area in association with productivity lead to substantial or complete loss of crop output. Loss of crop output was found to be higher among medium and large farmers in the study area mainly because many land-poor farming households withdrew from cultivation in tribal areas in case of a long dry spell or severe drought unlike their counterparts in irrigated areas. The losses in crop yield during drought years were estimated to be as high as 91% in tribal areas in the range of 50–75% as compared with 41% in the range of 25–50% in

non-tribal areas. It may be noted that, in the event of long dry spell, some land-poor households do skip Kharif crops and prepare for the next Rabi crops unlike that found in tribal areas. In dry and tribal areas, households continue with the usual Kharif crops irrespective of loss of production and yield, even abandoning a crop season or crop due to a poor rainfall or a longer dry spell found common and it seems to be a key drought coping strategy. Under the given situation, a household's selection of crops and crop seasons indicates their different coping strategies and labor uses as evident in the study areas.

Figure 11.2 shows a sharp decline in household farm income during drought, and the land poor were worse affected. The trend is also supported by the data in Table 11.4 showing loss of farm income leading to loss of household income loss, and it reiterates overdependence on farming and inadequate availability of non-farm avenues. Interestingly, losses in food crops in tribal areas and non-food in non-tribal areas account for a larger portion of the household income drop during drought. A sharp decline in a household's agricultural income in terms of both loss of crop output and wage employment is evident in the study areas. It also implies that income from livestock, allied activities, and others is not enough to compensate for the loss of farm income. In this situation, households seeking additional employment and diversification of household labor are obvious. The data in Table 11.4 show that non-farm employment and income are crucial during a drought year but they vary widely across study areas.

Although local non-farm employment was not adequate to compensate for the loss of farm income, it contributed to a substantial decline in average total household income (about 52% in tribal area to 36% in non-tribal area). It may be noted that the decline in non-farm income in the tribal area was as high as 46% as compared with only 5% in the

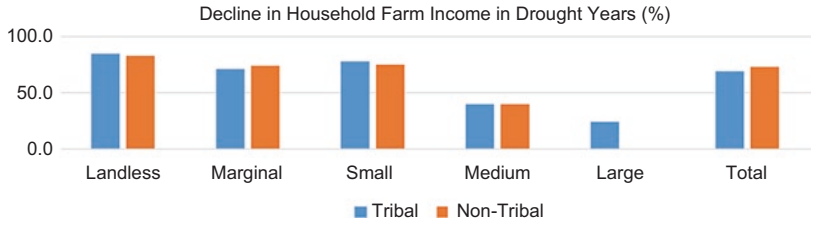

Fig. 11.2 Decline in household farm income during drought year

Table 11.4 Distribution of workers by major occupations in study areas (percentage)

	Tribal area			*Non-tribal*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*
Tribal area						
Cultivation	30.1	53.0	40.3	54.8	88.9	65.2
Livestock	0.0	1.5	0.7	0.0	0.0	0.0
Non-farm activity	3.6	0.0	2.0	1.6	0.0	1.1
Agricultural wage labor	2.4	3.0	2.7	3.2	0.0	2.2
Skilled base	3.6	0.0	2.0	4.8	7.4	5.6
Regular job	3.6	0.0	2.0	12.9	0.0	9.0
Trading	2.4	0.0	1.3	8.1	0.0	5.6
Caste base	0.0	0.0	0.0	0.0	0.0	0.0
Forest base	0.0	1.5	0.7	0.0	0.0	0.0
Migration	54.2	40.9	48.3	14.5	3.7	11.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Field survey

non-tribal area where households experienced a lesser decline in total household income during drought.

Drought and Household Occupation and Labor Use

Although it is often argued that farm output growth creates a variety of non-farm avenues in the rural economy via linkage effects (Mellor 1976), it seems no longer tenable for many poor rural families. Farming on its own is not adequate to cope with drought-induced losses and consumption smoothing in the study areas. Here, we tried to capture some of these trends through our field data analyses in subsequent sections. The trends of diversification of rural labor and households engaged in multiple occupations during drought are well documented but cannot be linked with household coping strategies. Based on household's ranking, important income-earning activities were selected for further details to analyze the nature and pattern of household labor use. We have grouped into 10 major household occupations or activities (Table 11.4) in the study areas subject to their duration and changes in weather conditions and farming activities. We found that households undertake activities in

combination and it became subsumed into broader portfolios. Household occupation patterns presented in Table 11.4 reveal some vulnerable situations in both of the study areas. The predominance of subsistence cultivation and female workers in agriculture is evident from the data. In tribal areas, out-migration was found to be a major occupation for more than half of the total workers and about 40% of female workers also opted for migration as a major occupation. It shows the degree of the distress situation in semi-arid tribal areas. The distress condition was not much better in coastal area, where the incidence of some skill-based activities availed by male workers and others migrated out. However, the nature and pattern of household occupation in non-tribal areas were found to be remunerative. In backward dry agriculture in the absence of productive farm employment, many households migrated out during drought. Poor households undertaking caste-based activities and dependent on local resources like forest, river, and water bodies were found to be rising during drought, showing the vulnerable condition of those who often fail to diversify their labor and other resources.

Change in Occupations

Change in occupation and diversification of household labor are often considered key household coping strategies which also indicate the dynamics of the local economy and labor markets. Data in Table 11.5 show some changes in major occupations at the household level, but a sign of distress occupational diversification is also evident, particularly in tribal areas. The number of workers engaged in agriculture reported a decline during drought. A sharp decline in agricultural wage labor and cultivators reported in the study areas is a matter of concern, especially in tribal areas, where the trend is more pronounced with a decline in access to forest-based activities and other avenues. Livestock activities, which are crucial sources of livelihood and act as insurance for the poor, show a decline across study areas. Rearing livestock becomes risky in rural areas because of high maintenance costs, high mortality, migration, and recurrence of drought. Labor migration, high animal mortality, decline in farming activities, and a decline in access to natural resources like forests might discourage livestock activities. Overall, a distress labor diversification toward seasonal and low-return multiple activities evident in the study areas is a weak ex-ante coping strategy.

Table 11.5 Change in major occupation during last ten years in study areas

	During survey years (workers)		*During last five years (workers)*		*Percentage change in major occupation*	
Sources of major employment	*Tribal*	*Non-tribal*	*Tribal*	*Non-tribal*	*Tribal*	*Non-tribal*
Cultivation	118	128	151	154	−28.0	−20.3
Livestock	1	33	7	37	−400.0	−12.1
Non-farm wage labor	4	14	1	10	75.0	28.6
Agricultural wage labor	6	57	32	42	−433.3	26.3
Skilled base	8	28	3	12	62.5	57.1
Regular job	2	7	1	4	50.0	42.9
Trading	7	2	0	3	100.0	−50.0
Caste base	0	4	0	5	0.0	−25.0
Forest base	1	1	15	8	−1400.0	−700.0
Migration	82	2	20	10	70.7	50.0
Total	238	275	238	275	0	0

Source: Field survey

The changes in major occupation among workers in the study areas presented in Table 11.5 indicate that household labor diversification is more of distress in nature, particularly in tribal areas. Lower-intensity land-based activities, dominance of low-value crops, low-return non-farm avenues, and other region-specific factors together restrict household labor diversification other than out-migration during drought. A sharp decline of employment in agriculture and livestock and other wage employment shows a high degree of vulnerability among the poor. Due to low or no education, training, employment, health status and other aspects of human capability, participation in multiple low-return activities is more of a distress survival strategy for them rather than optimize labor use and income. In agriculturally developed areas, the situation was better off in both average income and wage rate and more diversified occupational changes than their counterparts in tribal area. Low productivity and inflexibility in occupational choices in tribal area weaken household labor use, employment, and income strategies to cope with stress or scarcity. Therefore, occupational flexibility and productive local avenues are important for households to cope with drought-driven employment and income shocks.

Household Participation in MGNREGS in Study Areas

During scarcity periods, many households try to diversify family labor to optimize their employment and income by undertaking more activities, increasing working hours of current activity, and putting more family members in labor market. Participating in MGNREGS is a potential option for them during scarcity Drèze and Khera (2005), NCUES (2009), Ravi and Engler (2009), Reddy and Upendranadh (2010). In fact, Odisha is one of the few states where MGNREGS was initially implemented with aims at ensured employment for the poor to minimize drought impact. Although demand for work under MGNREGS is generally expected to rise with frequent drought-like situations in the state, the performance of MGNREGS in many parts, including our study areas, has been poor because of several supply-side bottlenecks, and recent evaluation studies on MGNREGS in Odisha suggest some common factors for poor implementation and outcome.

While analyzing the performance of MGNREGS in the study areas, we found some seasonal trends in household demand for employment in the study areas with visible differences (Fig. 11.3). The period during April to June and September, which constitutes an off-farm period, shows high demand for employment in both of the study areas. But the demand for employment continues to be high in Kendrapada, in contrast to Bolangir, from November to February, which is a harvesting and showing season for summer crops. The reason for this is the failure of Kharif crops and rejection of Ravi crops because of drought. In Bolangir, many potential workers tend to migrate out early and for longer employment if there is a drought-like situation during Kharif season.

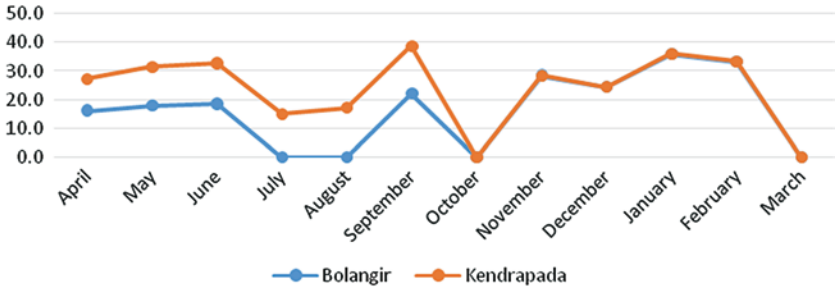

Fig. 11.3 Month-wise employment availed under MGNREGS

In regard to rural wage rates, it was reported that an increase in local wage rates after commencement of MGNREGS influenced local farming and demand for farm wage labor. Some observed that MGNREGS has affected their regular farming operations because of a rise in local wages (in the range of 30–90% in irrigated areas and 30–50% in dry areas) and non-availability of farm labor, particularly during peak crop season. Since there is an inter-link between farm and non-farm wages, a noticeable increase in local wage rate for both male and female was experienced in the study areas after implantation of MGNREGS. However, male-female wage disparity continued even after introduction of MGNREGS.

Our field data show some notable changes in household expenditure for those who participated in MGNREGS. Expenditure on food items gets diversified and there is gradually a shift toward non-food items and a change household consumption pattern. Data in Table 11.6 show detail about income from MGNREGS and its use. About 60% of the MGNREGS earning was spent on food purchased from the Public Distribution System (PDS) in the tribal area as compared with 16% in the non-tribal area, showing the importance of the program despite its several critics. Spending on non-food items ranging from health care to education and repayment of old debts (21% and 32% of MGNREGS wage earnings were used for repayment of debts in the Bolangir and Kendrapada areas, respectively) substantiates the importance of the program. Interestingly, MGNREGS

Table 11.6 MGNREGS employment, wage, and its use in study areas at the household level

Use of MGNREGS wages	*Tribal area*	*Non-tribal area*	*Total*
PDS rice	60.3	16.0	41.5
Debt repayment	21.4	32.0	26.4
Used for migration	7.1	24.0	15.1
Expenditure on education/health	3.6	4.0	3.8
Other expenditure	7.6	24.0	13.2
All	100.0	100.0	100.0
Average person days of MGNREGS employment/ household	22 (12)	14 (8)	18 10
Average wage income from MGNREGS (Rs.)	1760	1300	1530
MGNREGS wage earning as percentage of average annual HH income	18	13	15

Source: Field survey (figures in parentheses are for female workers)

income was used by few people as seed money to migrate out in search of better avenues and this is in contrast to the very objective of MGNREGS.

Labor Migration and Household Employment and Income in the Study Areas

The rise in labor migration in recent years might play a crucial role in household labor use and drought coping in both of the study areas. Since local employment and income earning activities are closely linked with agriculture and play vital roles in stabilizing household income and consumption strategies, labor migration during a drought period was found to influence household diversification and drought coping outcome. Although the overall effects of migration on rural employment are highly contextual, it was found to be one of the major forces behind household labor use changes and mostly toward managing consumption, income, and employment shortfalls. In both of the study areas, rising rural labor migration contributed to household income but not as a drought coping strategy, which varies across regions and social groups. Here, our focus is on migration and household labor use in the study areas during drought, and we try to sketch some broad features of labor migration in both of the study areas as presented below.

The incidence of labor migration was found to be higher in backward tribal areas, but average income of the migrants was higher in non-tribal areas, where households enjoy some employment or occupation flexibility or choice in terms of varieties of non-farm activities. For example, seasonal labor migration has become regular practice even in normal years for land-poor households but it gets pronounced in the event of drought. Differences in the nature of migration, transfers received, work conditions and choice, wages and other facilities reported in the study areas show that a household's decision to migrate out is not necessarily voluntary and creates a new space for better labor use. Households having some prior information about the work, workplace, wage rates, and so on migrate regularly and earn relatively higher incomes than others. Less skilled and less informed poor people in tribal areas migrate without prior plan and preparation and mostly engaged in low-paid harder activities with poor work conditions and their migration does not automatically improve their consumption, investments, savings, and risk coping ability. An overview of migration in the study areas compiled from the field survey data is given below.

An overview of migration in study areas

Particular/Regions	*Bolangir (tribal)*	*Kendrapada (non-tribal)*
Key factors for labor migration	Drought, crop failure, hunger, indebtedness, unemployment	Crop failure, low farm income, indebtedness, landlessness, unemployment, high wages
Information about migration/work	Labor contractors/agent friends/ relatives	Friends and relatives, past employer, agents
Period of migration	Oct–Dec (70%) and Feb to April	Off-farm (50%), any time in year
Destination	AP (brick kiln), CHGS (construction), coastal Odisha (agriculture)	Hyderabad, Bengaluru, Delhi, Chennai, Kerala, Gujarat, Bhubaneswar (services, construction, skilled work)
Type of migrant workers	Unskilled (85%), In group with family (55%), individual with relatives	Skilled or semi-skilled (22%), Individual (70%), with relatives and other male workers
Credit/borrowing for migration	Advance money from labor contractor/agent, moneylender/ shopkeeper	Moneylender, financial agent, relatives/friends

Source: Compiled from field survey

As discussed above, labor migration was found to be common in the study areas but the nature, pattern, and local factors influencing such migration were different. Data in Table 11.7 show the percentage of household reported migrating out with land size holdings. It may be noted that the proportion of households that migrate out is higher in non-tribal than in tribal areas, reiterating different household labor uses and priorities, especially during drought. As households across regions and social groups had different plans and periods for migration, all those who migrate did not necessarily gain from it. Hence, labor migration need not be a dependable strategy to counter drought adversities.

Labor migration in tribal areas was found to be much higher (61%) than in non-tribal areas (41%) but it was mostly out-of-state migration (about 80%) in both of the study areas. It appears that many rural people are hard-pressed during drought not only because of inadequate local avenues but

Table 11.7 Migration among sample households: by sex and place of work

Regions		*Migration (percentage)*				*Place of migration (percentage)*	
		Migrated HHs (percentage)	*Male workers*	*Female workers*	*Others*	*Inside state*	*Out of state*
Balangir (tribal)	*Landless*	90.0	47.7	38.6	13.6	8.8	91.2
	Marginal	56.6	61.6	28.8	9.6	31.9	68.1
	Small	77.8	72.0	20.0	8.0	0.0	100.0
	Medium	50.0	100.0	0.0	0.0	14.8	85.2
	Large	0.0				0.0	100.0
	Total	61.3	59.7	29.9	10.4	18.1	81.9
Kendrapada (non-tribal)	*Landless*	50.0	82.1	17.9	0.0	13.6	86.4
	Marginal	33.3	100.0	0.0	0.0	26.7	73.3
	Small	45.5	91.7	8.3	0.0	6.7	93.3
	Medium	33.3	100.0	0.0	0.0	9.1	90.9
	Large	33.3	100.0	0.0	0.0	16.7	83.3
	Total	41.0	91.7	8.3	0.0	13.1	86.9

Source: Field survey

also because of less opportunity within the state, which pushed them out of state for basic employment. Some notable variations among migrant workers were observed across the land size classes but not across study areas or regions. Among occupational groups, landless and agriculture laborers were found to migrate almost on a regular basis. One-third of total households reported at least some migrating worker in tribal areas reported moved out with female workers as compared with only 10–12% in non-tribal areas. It implies the severity of drought-induced scarcity and vulnerability among the poor and the challenge they face during scarcity. Migrating with women and other family members in the tribal areas also indicates desperation of the poor because leaving them behind is tough to sustain. However, for some, labor migration was a planned coping strategy against drought, mainly in non-tribal areas and among higher-size landholding households. Similarly migration of few male worker from family having higher land size holdings from higher could be a better labor use and employment plan rather seen as a drought-induced push factor. It may be noted that, for many landless poor who migrate out of state, it was mostly involuntary but that land-owning better-off households planned migration to optimize their labor use outcome. Given the complexity and multiple costs

involved in labor migration, it is hard to estimate whether migration within or outside the state is better to cope with drought. Skill, prior information, nature of work, local avenues, commuting, and so on make a difference in overall outcome.

In regard to the nature of work of migrant workers, it may be noted from the data in Table 11.8 that the construction sector remains the single most common destination although more than half of the migrant workers from tribal areas reported worked in the brick kilns in Andhra Pradesh and neighboring areas. Huge and variety of construction activities undertaken in neighboring states accommodate many low-skilled migrant workers during drought and agriculturally lean seasons unlike the case within their own state where quantum and timing of these employment fail to accommodate workers migrating out of the state. Surprisingly, migrating workers engaged in agriculture and related activities were found to be not more than 15% in both of the study areas. This is in contrast to the general belief that people from dry areas migrate to irrigated areas during drought farm lean period. It may be noted that coastal plain areas of Odisha are well endowed with high annual rainfall, water resources, and other facilities for progressive agriculture and can absorb good numbers of migrant workers from dry tribal areas. But migration from tribal dry areas is mostly to the non-agriculture sector and outside the state which substantiates the argument that

Table 11.8 Types of work undertaken by migrating households in study areas

Regions		*Brick kiln*	*Construction*	*Agriculture*	*Earth work and RNA*	*Skilled work and service*
Tribal	*Landless*	64.7	23.5	5.9	2.9	2.9
	Marginal	16.7	31.9	27.8	5.6	5.6
	Small	92.0	8.0	0.0	0.0	0.0
	Medium	77.8	11.1	7.4	3.7	0.0
	Large	0.0	0.0	0.0	0.0	0.0
	Total	51.8	21.7	14.5	3.6	3.0
Non-tribal	*Landless*	0.0	40.0	30.0	0.0	30.0
	Marginal	0.0	35.7	21.4	14.3	28.6
	Small	0.0	16.7	6.7	0.0	76.7
	Medium	0.0	9.1	0.0	9.1	81.8
	Large	0.0	16.7	0.0	0.0	83.3
	Total	0.0	24.7	13.6	3.7	58.0

Source: Field survey

land-based activities fail to absorb rural labor irrespective of level of irrigation and agricultural development in Odisha. Hence, drought-induced migration has been a common and new form of household labor use. About 58% of migrant workers in non-tribal areas reported engaged in services and skilled activities where wage rates are higher than those of construction and other activities. Similarly, more than half of the migrant workers from tribal areas engaged in brick kilns outside the state and it was very much seasonal in nature. Therefore, labor migration has the potential to change household labor use, but the outcome does not ensure a better coping strategy against drought for all groups in all regions.

Seasonality and Migration

Seasonal crop production and migration play a vital role in the nature and pattern of household labor use. From the data presented in Table 11.9 show variations in average duration and income from migration highlight household employment and income level. A cross-sectional analysis has also been done to see the nature of migration across vulnerable groups in the drought-prone study areas. The nature of migration in terms of migrating with family members, distance or area coverage of migration, destination or workplace, and duration of migration and so on were examined across occupational groups, landholding size class, and social groups. In most cases, land-poor agriculture laborers who migrate with their women and children were found to be vulnerable. But it does not always ensure overcoming employment and income shortfalls. In terms of duration of migration, it accounts for more than six months in both of the study areas and more in tribal areas (228 days), which does not look very seasonal, at least in

Table 11.9 Average period and income of migration

Regions		*Distance (km)*	*Duration (person days)*	*Income (in Rs.)*
Tribal	Number	163	160	150
	Mean	1527.8	228.5	5985.9
	Standard deviation	558.9	93.5	3402.3
Non-tribal	Number	65	65	65
	Mean	2105.5	192.46	16961.5
	Standard deviation	111.9	82.83	13750.6

Source: Field survey

irrigated non-tribal areas. In the case of an early occurrence of drought, many farming households redistribute family labor and plan in advance for a longer period of migration depending on the type of crop production, farm operations, and the severity of drought. But in tribal dry areas, an early indication of failure of Kharif crops alerts the poor labor households for early migration as there is hardly any scope for Rabi crops. A decline in non-farm and seasonal activities in a drought year accentuates their misery.

About 90% of the total landless households in tribal areas and 50% of households in non-tribal areas reported migrated out followed by marginal and small farming households. However, workers from other landholding size groups also migrated out during a drought year. The duration of migration assessed across landholding groups indicates that the majority of households who migrate outside the state go for most part of the year because there is hardly any backup to capitalize on at their native place. Once they migrate out for a longer distance, it is not easy to come back in a short period, even in an emergency, because of labor contracts, the high cost of transport, repayment of credit, and so on. Therefore, many poor people are likely to miss or skip public development programs like MGNREGS, PDS, and drought reliefs.

Owing to the periodic and persistent difficulty of the local agricultural operations, households try to design drought coping strategies incorporating regionally diversified employment. Region- and group-specific variations in labor use and migration were found in both of the study areas, and migration continues to be one of the key drought coping measures. Although our data strongly suggest that the overall income generation strategy from the perspective of sectoral and regional diversification underpins household risk coping strategies, they do not provide an unambiguous answer to why the non-tribal household income is composed of relatively much more diverse components than the households in tribal dry areas. With the qualification that we are examining results from only four study villages in a given period, it appears that this diversity could be the secret of greater drought coping of non-tribal groups in a condition of bad weather or crop failure.

Migration, Intra-Household Risk Coping, and Gender

As drought-induced risks are closely linked with household employment and income, any risk coping effort would first induce a diversification or

reallocation of family labor. But its impact may not be equal for the all family members of the household. Although labor migration was found to be one of the key drought coping strategies in the study areas, it was not gender-neutral across regions and social groups. The decisions about undertaking more activities, increasing the number of working hours, relocation of work and working members, sharing more work by females, and putting children and elders in different activities were profound in the study areas. Women across study areas found overburden during scarcity periods in terms of spending more time on arranging food, water, fodder, and fuel and this is in addition to their usual household chores and it gets pronounced in case any family member migrates out. During drought there was increase in participation of female members in multiple activities is to share a household's risk coping disproportionately during drought augment gender inequality. Similarly, gender bias in food consumption, expenditure on health and education, and other items was evident in the study areas. In this situation, the participation of women in public development and employment programs like MGNREGS may be lower because of their pre-occupation in arranging for water, fodder, and fuel and other activities. We tried to capture some intra-household coping mechanisms in terms of intra-household allocation of labor and reduction in critical household expenditures (on food, health, and education) in buffering the effects of drought.

We found that intra-household risk management was followed mainly in terms of reallocation of labor and that essential spending looked biased against female members. Increase in working hours as a risk-induced coping strategy was pronounced for females and may vary in different intensity, which is not easy to net out. Similarly, a sharp gender inequality in terms of reduction in health and education expenditure for females reiterates the fact that there was adverse impact of drought on women although assured wage employment is available during the off-farm season. In fact, girls are the first to withdraw from schools in case of drought and household contingency (Table 11.10).

Migration and Household Borrowing in Study Areas

Earlier we have discussed about drought induced labour migration in the study areas that influence household labor use and risk coping. However, the entire process and outcome of labor migration were found not to be simple and uniform. All migrant households have a different way of managing

Table 11.10 Intra-household risk coping

Changes	*Increase in working period (percentage)*				*Reduction in health expenditure (percentage)*				*Reduction in education expenditure (percentage)*	
	Female	*Male*	*Female child*	*Male child*	*Female*	*Male*	*Female child*	*Male child*	*Female child*	*Male child*
Marginal	19	16	27	31	45	48	40	36	36	33
Average	18	21	6	1	16	19	7	6	7	6
High	16	12	1	3	7	4	0	0	0	1
Very high	36	24	7	7	15	10	9	6	18	10
No change	15	22	58	57	16	18	43	52	39	49
Total	100	100	100	100	100	100	100	100	100	100

Source: Field survey

their affairs, such as planning for migration, financing, arranging for the members left behind, and so on. Broadly, labor migration influences household economics in two ways: one is the outflow of indispensable family resources to meet the expenses incurred in the migration process and the other is the transfer in cash or kind from migrants to their non-migrating families. Here, we focus on some key observations regarding labor migration and household borrowing in the study areas: sources of funds for migration and resulting migrant indebtedness and the link between migration and household borrowing and utilization of remittances. Drawing on the experiences of migrants in the study areas, we tried to explore the socio-economic cost of migration, the nature and pattern of indebtedness, and implications of remittances for migrant families. Drought-induced labor migration appears to run on debt, and migrants and their families become indebted in the migration process.

It may be seen from the data in Table 11.11 that a high level of indebtedness is evident in both of the study areas and across land size classes. One of the striking observations is that the number of indebted households increases on the scale of development and landholding size classes. About 52% and 71% were reported to be borrowing households in tribal and non-tribal areas, respectively. The high incidence of household borrowing in non-tribal areas may be because of higher access to sources of credit, absorption of credit, and repaying capacity in comparison with their counterparts in tribal and backward areas. However, the proportion

Table 11.11 Household borrowing: pattern and purpose by land size classes

Areas	*Land size classes*	*Borrowing household (percentage)*	*Purpose of borrowing*						
			Agri-culture	*Consumption*	*Marriage*	*Housing*	*Migration*	*Others*	*Total*
Bolangir (tribal)	Landless	50.0	0.0	33.3	33.3	0.0	33.3	0.0	100
	Marginal	58.5	58.3	16.7	8.3	4.2	8.3	4.2	100
	Small	44.4	12.5	87.5	0.0	0.0	0.0	0.0	100
	Medium	16.7	25.0	25.0	0.0	25.0	25.0	0.0	100
	Large	50.0	0.0	0.0	100.0	0.0	0.0	0.0	100
	Total	52.5	40.0	35.0	10.0	5.0	10.0	2.5	100
Kendrapada (non-tribal)	Landless	77.3	25.0	43.8	12.5	6.3	12.5	0.0	100
	Marginal	74.1	46.9	18.8	21.9	0.0	12.5	0.0	100
	Small	72.7	60.0	16.0	12.0	8.0	4.0	0.0	100
	Medium	44.4	72.7	0.0	18.2	9.1	0.0	0.0	100
	Large	66.7	50.0	0.0	25.0	0.0	0.0	25.0	100
	Total	71.1	50.0	19.3	17.0	4.5	8.0	1.1	100

Source: Field survey

of borrowing households was found to be relatively low and declined with land size class in tribal areas in contrast to the trend in non-tribal areas. Low or no access to adequate credit by the land-poor households in tribal areas is largely because of low availability of formal credit, poor asset and collateral holding, weak repaying capacity, and unstable income. During drought, multiple informal borrowing in case of loss of crop and farm income often pushed rural poor harder situations like liquidation of assets and forced migration. So the type and functioning of local credit markets can have enormous impacts on the poor and their coping with drought and scarcity.

In regard to the purpose of borrowing, some interesting trends emerge from our data in Table 11.11 below. A difference in household borrowing pattern and its purpose in the study areas is evident. About 48% of credit was used for non-productive (consumption and social expenditure) purposes in tribal areas as compared with 37% in non-tribal areas. In tribal area half of the households borrowed and about 40% credit was meant for agriculture where farming is mostly subsistence and highly uncertain as compared with 71% of total household borrowing and used 50% of total credit in agriculture in non-tribal areas. While subsistence crop production and consumption-led borrowing were found to be predominant in tribal areas and among land-poor households, in non-tribal areas they were more productive and diverse.

Expenditures on social events like marriage, house repairing, or renovation emerge as prime reasons for household borrowing in both of the study areas. While marriage and other social expenditures are often obligatory for households, regular expenditure on housing activities was found to be common in both areas. It implies that non-productive borrowing was common and unavoidable among rural poor and farming households which becomes worsen during drought period. It may be noted that any major health expenditure can threaten household stability and weaken the capability to cope with risks.

Borrowing for migration was found to be another important reason for rising household indebtedness among the land poor and in tribal areas. It may be noted that some pre-migration credit arrangements take place, especially in tribal areas, making many migrant families indebted by default. High indebtedness makes poor households more vulnerable, and repayment of old debt becomes almost impossible because of crop failures, loss of farm income, and low or no remittances in drought situations. The incidence of multiple borrowing as part of a production and consumption

coping strategy was found in both of the areas. In the absence of adequate access to affordable credit, household borrowing decisions aggravate their coping ability during crisis.

Sources of Household Credit

Sources of household borrowing highlight the nature of credit demand and uses. As expected, the predominance of informal credit in the study areas is evident and access to and availability of formal credit were found to be inadequate and more so during a crisis period. Poor households try all possible credit sources to meet their credit needs irrespective of conditions of credit. Data presented in table 11.12 show different sources of credit where the predominance of local moneylenders continues for poorer groups some formal credit sources like bank and cooperatives were used by the upper landholding classes in non-tribal areas. It may be noted that the labor contractor (*Sardar*) was the key credit supplier for migrant landless and marginal households in tribal areas in western Odisha. Informal credit transactions that take place between these contractors and migrating households make it possible to have a new source of credit, but its consequence and impact on the borrowers were found to be exploitative and unfavorable with a very high rate of interest (120%) and other conditions. Credit from traders, commission agents, and shopkeepers was sometimes easier and affordable but very selective and depends on the creditworthiness of the borrowers.

Crucial sources of private loan were relatives and friends, who often exchange credit either with low rate of interest or without it. However, the quantum credit is normally low and there is a lesser possibility that poorer households can extend credit to their relatives as most of them are in a similar line of economic and financial constraint. Cooperatives banks and commercial banks also extended loans for the rural household but mostly to land-rich better-off households. Here again, the most vulnerable groups are landless and marginal households, which tend to get excluded from the institutional credit system. On the other hand, owing to outreach and better understanding about potential borrowers and local conditions, moneylenders and other informal lenders continue to serve as major suppliers of credit to rural households at higher interest rates and with other conditions.

It appears that the role of intermidiaries in the informa rural credit market are active during drought and labour migration season was found to be active and crucial in the entire process, it may give them to play role of moneylender. Second, local moneylenders, agents, retailers, and other

Table 11.12 Sources of household borrowing in study areas

		Banks	*Coope-ratives*	*Money lender*	*Large farmer*	*Relatives*	*Traders*	*Labor contractor/ agents*	*Others*	*All*
Orissa	Landless	0.0	0.0	66.7	0.0	0.0	0.0	33.3	0.0	100
Bolangir (tribal)	Marginal	22.2	0.0	44.4	11.1	11.1	11.1	0.0	0.0	100
	Small	12.5	0.0	50.0	12.5	0.0	12.5	12.5	0.0	100
	Medium	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	100
	Large	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100
	Total	19.2	0.0	50.0	7.7	7.7	7.7	7.7	0.0	100
Kendrapada	Landless	22.2	0.0	66.7	11.1	0.0	0.0	0.0	0.0	100
(non-tribal)	Marginal	19.0	19.0	33.3	4.8	4.8	4.8	0.0	14.3	100
	Small	16.7	38.9	33.3	0.0	0.0	11.1	0.0	0.0	100
	Medium	16.7	33.3	16.7	0.0	0.0	0.0	16.7	16.7	100
	Large	25.0	25.0	25.0	0.0	0.0	0.0	0.0	25.0	100
	Total	19.0	24.1	36.2	3.4	1.7	5.2	1.7	8.6	100

Source: Field survey

informal credit lenders were found to be extending credit to individual regular migrants than their non-migrant counterparts even without collateral. This trend is clear in coastal areas and seems to help migrants in different ways.

In regard to household savings, we found that it was much less and in a different format that may not provide relief from high indebtedness and fails to be an effective coping tool in a drought period. Household saving was irregular and mostly in the form of livestock, ornaments, and utensils. Few medium and large farmers, regular jobholders, high-paid non-farm workers, and traders reported having deposited in formal credit institutions. Interestingly, households engaged in animal husbandry have the highest savings of any occupational groups. This indicates that animal husbandry can help rural households to reduce drought impacts and vulnerability. Poor banking facility and low rate of return on savings also discourage rural saving, which indicates economic vulnerability in drought-prone areas, particularly in dry and tribal dry areas.

Labor Migration, Demand for Credit, and Household Borrowing

The linking of labor migration and remittances with credit demand which emerges from our field survey is quite interesting. A household decision on migration is a temporal strategy for income generation and consumption smoothing. The remittances from migrant workers are most important in drought-prone areas as additional tools of drought coping, risk management, and asset accumulation Terry and Wilson (2005). Recent studies show that remittances of migrant laborer have a positive impact on household consumption, savings, and debt servicing. Here, we try to highlight whether remittances facilitate borrowing and debt repaying among migrant households. Although it is not simple and straightforward, we try to find whether remittances enhance household access to credit and change in conditions of credit. Using primary household data, we found that migration and remittances facilitate access to credit (mostly informal) and taking up more and frequent loans.

Interestingly, both demand and supply-driven factors were found to be in operation. On the demand side, remittance-receiving households seem reduce their risk aversions and increase the potential to take up more debt for both consumption and production and sometimes asset creation such as housing, tube well, buying ornaments, cycle, motorcycle, and farm inputs. On the supply side, from the lenders' perspective, a regular, stable, and additional income from outside the local economy seems to convince

the lender about the creditworthiness of some borrowers. There is a general perception that migrant laborers whose movements and remittances are traceable and predictable became creditworthy borrowers for few local lenders and even some of them were perceived as high-risk customers in the past. Although the effect of remittances on access to and use of financial services is not straightforward, we found some links between labor migration remittances and change in household access to credit and its uses. On average, migrant households are expected to have higher average credit but it may vary across regions. The literature on remittances and financial access has put forward two views: One view claims that remittances function as a substitute for credit.

It may be seen from the information in Table 11.13 that the average amount of borrowing and outstanding is higher in the case of migrant households than non-migrant households in both of the study areas. The differences in average credit and outstanding were found to be more than double between tribal and non-tribal areas. Relatively higher average credit amount per household in non-tribal areas might show positive effects of labor migration and use of remittance in terms of high income, consumption, saving access to credit unlike the case of tribal areas where most of the migration is distressed and drought-induced, pre-determined by labor contractors and nature and quantum of remittances is low and uncertain. Similarly, other aspects of household borrowing, particularly among migrant households, such as sources, duration, and collateral/guarantor required, were found to be more or less the same with a few exceptions in the case of migrant households in non-tribal areas. Unlike findings of other studies (Zenteno 2007; Giuliano and Ruiz-Arranz 2009) that remittances can substitute for the lack of access to credit and enable households and enterprises to increase their investment in human and physical capital, we found that labor migration has different trends and effects on household in access to and use of credit between two study areas. Here, effect of labour migration during drought and its overall conequences are different than the type of migration and remittances analyzed in the available literature where migration is more of voluntary and remunerative and knowledge of financial products of migrants transmit together with remittances and lenders might include remittances in the evaluation of creditworthiness of clients (Cuecuecha and Da Rocha 2014; Orozco and Fedewa 2006). It was found in the study areas that the change in perception of local credit lenders about migrant labor, while both migrant and non-migrant labor from similar class and caste having the same credit lenders, the migrant borrowers crowd out

Table 11.13 Pattern and conditions for household borrowing

	Bolangir (tribal)		*Kendrapada (non-tribal)*	
	Migrant HH	*Non-migrant HH*	*Migrant HH*	*Non-migrant HH*
Average current year borrowing (Rs.)	9570 (80)	5257 (72)	18,267 (62)	15,500 (75)
Average total outstanding (Rs.)	14,500 (35)	12,608 (33)	32,500 (42)	24,000 (50)
Sources of borrowing	Multiple: local (formal and informal)	Multiple: local (formal and informal)	Multiple: local and outside (formal and informal)	Multiple: local (formal and informal)
Average period of borrowing	1–12 months	1–6 months	1–24 months	1–18 months
Collateral: required/insisted	Required and insisted (if past record is bad)	Required (any valuable asset with guarantor)	Required but flexible (any asset without guarantor)	Required (any asset/guarantor or both)
Use of credit by priority:	1. Consumption expenditure 2. Repayment of old loan, 3. Social exp.	1. Agriculture, 2. consumption expenditure, 3. Repayment of old loan	1. Buying farm inputs, motor cycle 2. Housing/ land 3. Education and health exp.	1. Agriculture 2. Housing 3. Education and health expenditures

Source: Field survey

Note: Figures in the bracket shows informal credit as percentage of total household (HH) credit

non-migrants leading to an informal credit-labor-migration link, although much is not captured about it in the present study.

Conclusion

Drought expands scarcity and pushes up circular labour migration that found common in both of the study areas. But this is seen as a short-term household strategy to cope with crop loss, seasonal unemployment, consumption shortfalls, repayment of past debt, liquidation of assets, and

some planned expenditure. Migration in backward tribal areas is a survival strategy for many poor households in the absence of adequate farm employment and public employment like MGNREGS. Since timing and quantum of demand and supply of employment under MGNREGS were not matched to the local conditions, it failed to arrest huge labor migration. However, a good network with employers and fellow workers at work sites, past experience, pre-migration credit and labor arrangement, connectivity, and so on were found to be key factors that drive labor migration.

At the household level, rural labor migration has striking gender-differentiated impacts with the increase in work and work time being greater for left-behind women and girls than men and boys. Women were disproportionately hard-pressed in drought years in comparison with normal years. Many of them had to skip participating in public programs like MGNREGS, PDS, and drought relief and other private wage employment. It appears that drought-induced labor migration influences household labor use that is not gender-neutral. These findings have important policy implications.

Emerge of some patern of link between labour migration and household access to credit and nature of borrowing. But it requires further investigation to establish. Arrangement of money before migration were found to be crucial in backward areas, where labor migration is largely planned and executed by some intermediaries and the informal labor contract between the intermediaries and migrants appears to get extended to credit also as many migrants found borrowed regularly from the labor contactor even after migration.

In summary, our analysis provides mixed evidence regarding the potential of rural labor migration on household labor use, income and consumption smoothing, asset creation, access to credit, and social capital, but migration on its own cannot support a household development strategy. As a short-term household strategy, labor migration was found not to be gender-neutral.

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CHAPTER 12

Migration and Development: Rural-to-Urban Temporary Migration to Gujarat

Indira Hirway and Udai Bhan Singh

Introduction

This study focuses on rural-to-urban internal migration of labor that is temporary or seasonal and is from rural-to-urban areas. Rural-to-urban migration has increased significantly in the countries of the Global South in recent decades. It is also expected to increase further in the future. Therefore, it is important to study the dynamics of this stream of migration in the context of its relationships with the process of development. It is confined to temporary migration to Gujarat from within the state and from other states. This chapter examines whether this migration has promoted or is likely to promote development of migrant workers and the regions of their origin or whether they are likely to settle down in the region of their destination.

I. Hirway (✉)
Centre for Development Alternatives, Ahmedabad, India

U.B. Singh
Amity Business School, Amity University, Jaipur, India

D.N. Reddy, K. Sarap (eds.), *Rural Labour Mobility in Times of Structural Transformation*,
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Migration and Development

Theories in brief: One of the very widely popular theories explaining migration was presented by Harris and Todaro (1969). Based on the neo-classical equilibrium theory, it argued that laborers move from rural or traditional sector to urban areas or modern sector to maximize incomes, as the expected incomes in urban areas are higher than those in rural areas. This movement of labor continues until the wages of labor fall in urban areas and rise in rural areas so that gradually the wages are equalized in both regions. This neo-classical theory fits very well with the development model that Arthur Lewis presented in 1954 in his seminal article on "Economic Development with Unlimited Supplies of Labor". According to this model, in a dual economy, the subsistence sector with surplus labor helps the modern sector to draw labor at a constant subsistence wage and make profits that are worked for further development of the capitalist or modern sector. This movement of labor promotes expansion of the capitalist sector along with employment at an early stage of development. When the excess labor in the subsistence sector is fully absorbed into the modern sector and where further capital accumulation begins to increase wages (that is, the "Lewis turning point" is reached), migration stops and wages of labor are equalized with the spread of modern sector across the economy.

These theories, however, ignore market imperfections and structures that do not allow markets to perform freely. They impede the functioning of markets. In the 1970s and 1980s, therefore, several scholars, including Marxist political economists, presented historical-structural theories that accepted the asymmetric nature of growth (Castles et al. 2003). It is argued by the proponents of this theory that because of socio-economic-political structures, people living in rural/disadvantaged areas do not have equal access to livelihood opportunity with others. They are pushed out of these areas and forced to migrate to urban/prosperous areas for survival or to minimize risks and vulnerability. In the process, they contribute to the growth of better-off regions. Lagging regions, on the other hand, lose productive labor and remain backward (that is, fall in the trap of disadvantages). Migration thus leads to regional disparities, increasing underdevelopment and dependency of lagging regions. This is also described as "the lost labor effect" (Taylor 1984) and "development of under development" (Baran 1993). Thus, these structural theories are pessimist in the sense that they consider migration as a negative factor that intensifies disadvantages of the backward region and increases regional disparities.

Several scholars have argued that migration is a very complex phenomenon and multiple factors are responsible for it, such as conditions in the area of origin, conditions in the destination, distance to destination, legal constraints that influence access of migrants to the destination, and personal factors, such as skill, sex, age, and personal contacts. That is, both push and pull theories work at the field level (Bauer and Zimmermann 1998).

Chain Migration and Network Theory

That laborers move to regions with higher wages does not fully explain the actual streams of migration. Other factors, such as spatial proximity of the destination presence of institutions facilitating or obstructing migration, social networks, and cultural and historical factors, are also important. The concepts of chain migration and network migration have been developed in this context. This migration stream goes on until there is scope for more laborers to get work. Similarly unpleasant experiences deter laborers from moving to the same places. In the 1980s and 1990s, one finds a pluralist approach to migration, where not only structures but also agency counts. The new economics of labor migration (NELM) argues that migration is not a decision of an individual but a household decision. Focusing on remittances, this theory argues that households decide to migrate (or to send one member out for work) to diversify their income sources and to minimize their risks. In other words, households use migration as a tool to overcome their constraints in the area of origin and decide to send one or more household members out to earn income.

Pluralist Theories of Migration

Migration is also seen by some scholars as a household strategy to diversify risk and overcome market constraints. It is argued that migration is a consequence of a household livelihood strategy; it is a mechanism to protect livelihoods, a means to acquire a wider range of assets that insure against risk. Remittances have an important role to play for migrant households. It is also argued that migration helps migrant workers to address the impeding structures in the area of origin. For example, owing to structural constraints, the marginalized in backward regions cannot access credit, insurance, technology, and so on. However, migrant households may overcome these constraints once they earn remittances, and they can also invest in

productive assets and new livelihood opportunities. These approaches have led to the development of a pluralist theory of migration and development. This theory recognizes the structures as well as the agency, the migrants and their households, and states that agency can address structures to forge linkages between migration and development of migrants and subsequently development of disadvantaged areas.

Prevailing Development Paradigm and Social Policy

Under the era of neo-classical theories, migration of labor was seen as a positive mechanism of balanced growth and economic diversification. When the neo-classical thinking was challenged, also by Marxists, the role of the structures was recognized in the process of migration. This was followed by economists on both sides, and the result has been pluralist theories that recognized the role of structures and the agency.

In the present environment of neo-liberal policies, migration is seen as a positive point for development. Flows of remittances to the areas of origin are expected to produce multiple positive impacts on migrants, such as improving the quality of life of people (as spent on housing and basic facilities) and improving education and skills of the migrant population. It is therefore argued that migration results in the development of both the areas of destination and origin. Migration should be seen as a healthy mobility of labor across regions for diversification of workforce in the economy and should be promoted for the overall growth of the economy.

Missing Elements in Theories

It is important to see that there are no watertight compartments between the theories of temporary and permanent migration. Historically speaking, all migration flows usually start as short-term migration, as migrant workers keep their roots in rural areas because they have land or assets at home that generate incomes—though insufficient—or the family members have some livelihood activities in the rural areas, or the whole family does not migrate but only one or a few members migrate for helping families to start with, or migrant workers take time to adjust in new urban environments and to bring their families to cities. In some cases, they decide to go back to their village after collecting good savings. Most theories of migration therefore are applicable to short-term and long-term migration.

An important set of research questions is why and when migrant workers decide to settle down in the place of their destination or decide to remain circular migrants all their life or decide to settle down in the place of the origin. This study proposes to explore the relationship between migration and development in this context. One missing element in the above set of theories is that they do not explain under what circumstances migration strengthens the relationship between migration and development of migrants and regions. They are therefore not adequate in designing policies that strengthen a positive relationship between migration and development. For example, it is important to understand under what circumstances remittances help in the development of the place of origin or under what circumstances migration results in the structural transformation of the workforce, or what kind of government interventions are needed for forging positive linkages between migration and development, or what kind of development paradigm helps migration lead to sustainable development and so on.

Approach of the Study and Methodology

The primary survey undertaken in the study covers three rural-to-urban temporary streams of migration to Gujarat state. These three streams are (1) construction workers, who largely unskilled manual workers (a few with some skills like plumbing) who migrate seasonally for construction work; (2) diamond cutting and polishing workers who usually have skills, which are acquired on the job; and (3) power loom workers who usually have skills, again acquired on the job.

Construction Industry

The construction industry has been one of the fastest-growing industries in India and also a major source of employment for migrant workers (Deshingkar and Akter 2009). There are more than 40 million migrant construction workers (both skilled and unskilled) in the country. Gujarat state has a rapidly growing construction sector, particularly in its urban centers. According to an Associated Chambers of Commerce and Industry of India (ASSOCHAM) study, the real estate sector has attracted 41% of new investments across India during 2012–13 with the state standing second among the major 20 states in road construction projects. Ahmedabad, one of the fastest-growing cities in Gujarat, has

been experiencing a construction boom in recent years. According to the Gujarat Institute of Housing and Estate Developers (GIHED), the construction industry is playing an important role in the state's infrastructure and real estate sector, and 40% of real estate transactions of the state take place in Gandhinagar and Ahmedabad.

Ahmedabad is selected for the study of migrant workers in the construction activity. Four construction sites are selected: two private sector construction projects involved in the development of sites housing complexes and two public sector sites: the Indian Institute of Management (IIM) flyover and the Sarkhej-Gandhinagar Six-lane Highway. The construction workers on these sites frequently live on worksites or on the roadside or in illegal Basti (settlements). Those living on worksites are usually brought by contractors. Those living in Bastis either are hired or brought by contractors or have come to the city on their own. Those who come on their own usually stand on "Naka"—fixed locations on crossroads—and wait for contractors to pick them up. Our sample included 105 migrant construction workers: 35 workers from private construction complexes, 35 from public worksites, and 35 from workers standing on Naka. There are about 100 Nakas in Ahmedabad, and we selected three Nakas located in different parts of the city.

Textile Industry

The textile industry in Gujarat is another major sector where large numbers of migrant workers are employed. This industry has contributed to the rapid industrial growth since the middle of the nineteenth century in Gujarat. After the crisis in the industry in the 1980s, the composite units of the industry got decentralized into smaller spinning, weaving (mainly power looms), and processing units. Textile units are spread to larger areas within the state and have increased their dependence of migrant workers. At present, the textile industry in Gujarat contributes almost 3% of the national gross domestic product and shares 12% of the national textile exports.

Ahmedabad is a major center of textiles and power looms in the state. The favorable Central and State industry policy, subsidized land, electricity, availability of raw materials and yarn, cheap labor, and easy transport connectivity have contributed to this growth. The industry has become an important source of employment for migrant workers also. This work is not seasonal, but rather year-round. However, these migrant workers have

strong links with their villages, visit their villages frequently, and are not sure where they will live ultimately. We selected 104 fresh migrants to this industry for our study. In order to get a comparative view of the situation, we also selected a small sample of 21 migrants who have been living here for more than 5 years and who intend to stay. Size-wise, 48 workers are from large units, 26 from medium units, and 29 from small units. Of the total, 37 are skilled workers, 19 were semi-skilled (both categories trained on the job), and 59 are unskilled. Location-wise, two textile centers—Narol and Naroda of Ahmedabad city—are selected for study.

Diamond Industry

The diamond industry is another important industry in Gujrat where a large number of migrant labor is employed. At present, more than 80% of the diamond cutting and polishing in the country is done in Gujarat. Although reliable data on diamond units as well as workers are not available, it has been estimated that there are about 7000–8000 small and big diamond processing units that employ more than 7–8 lakh workers (Hirway 2009). Most workers in this industry are informal workers, not protected by any social security measures. This is because most diamond units are not registered under the Factories Act (although they are expected to be), and even those registered do not report all the workers.

We have selected the biggest center of diamond industry, Surat city, for our study. It employs around four lakh workers, of whom more that 90% are from outside the city. Many of them have settled down in Surat, whereas others are still undecided. Although some migrant workers prefer to go back within 2–5 years, the others may decide to stay to become permanent residents of the city. The majority of the workers are either from the Patel caste from Saurashtra or from the Jain community (Shah) from North Gujarat. As diamonds are expensive, employers prefer workers from their own communities. However, recently, units have started hiring workers from other communities in Gujarat and from other states like Maharashtra, Madhya Pradesh, Rajasthan, and even Bihar and Uttar Pradesh. Since most diamond units undertake job work for larger producers or traders, the workers usually float from one unit to another. Most of these workers are school dropouts trained on the job. The main localities of the industry in Surat city are Varachha and Katargam. We selected 108 migrant diamond workers from Varacha, Kapuwadi, Katargam, and other areas. The major operations in the industry are cutting, blocking, bruting,

polishing, and grading. Our sample consisted of workers from each of the skills and from the three localities. Thirty-two (30%) workers are selected from large units, 38 (35%) workers from medium units, and 38 (35%) from small units. The majority of the workers were investigated in the late evening in their localities as we were not allowed to interview them in their workplace. In all, the total sample size of the study included 317 migrant workers: 105 from the construction industry, 104 from textiles, and 108 from the diamond industry.

Major Findings of the Primary Survey

Profile, Process, and Causes of Migration

Our field investigation shows that the majority of migrants in the construction and textile industries are in 15- to 24-year-old age group, whereas the majority of diamond workers are in the 25- to 34-year-old age group. More than 70% of total migrants are youth between 15 and 35 years old. The mean age of workers is 29 years. The elder workers (35–59 years old) constitute 30% of the total migrants. Six migrant workers in construction and six in the textile industry are in the age group of 15–17. As per the legal provisions, working hours of these young workers should be up to 4–1/2 hours a day; however, no workers have replied that their working time is less than 8 hours.

Also, lower castes dominate in construction and power looms (70%), whereas only 30% of workers belong to other caste groups (Table 12.1). The proportion of scheduled tribes (STs) (53%) is the highest in the construction industry, whereas the diamond industry has the lowest proportion (13%) of the ST population. The other castes are predominant in the diamond industry, followed by the textile industry. The scheduled castes (SCs) and other backward classes (OBCs) are important in the construction and industries but their participation is lowest textile and then in the diamond industry.[1] In regard to literacy levels, 66% of migrants from lower social groups are illiterate. The majority of them are in the construction sector, implying that migrants in this sector are largely from low castes with no education or low literacy. Overall, migrant workers have low literacy, although diamond workers are slightly more literate (Table 12.1). In fact, workers in the diamond and textile industries have workers who have studied up to graduate level.

Table 12.1 Profile of migrant workers by industry type (percentage)

	Construction	*Textile*	*Diamond*	*All*
Sex				
Male	91.67	99.01	92.52	94.25
Female	8.33	0.99	7.48	5.75
Total	100	100	100	100
Age				
15–24	44.4	39	30.5	38
25–34	29.6	33	45.7	36.1
35–59	24.1	27	22.9	24.6
60+	1.9	1	1	1.3
All	100	100	100	100
Average age	28.7	29.1	29.1	29
Caste				
ST	52.8	14	13.3	27.2
SC	8.3	8	18.6	15
OBC	18.5	20	37.6	28.8
All	20.4	58	35.5	29.1
Total	100	100	100	100
Education				
Primary	18.5	21	10.5	16.6
Middle	13	21	21	18.2
High school	22.2	32	34.3	29.4
Intermediate	6.5	5	21.9	11.2
Graduate	3.7	9	7.6	6.7
Illiterate	36.1	12	4.8	17.9
All	100	100	100	100
Land category				
Landless	36.1	45.1	60.8	47.3
<1 acre	12	16.7	0	9.5
1–2 acre	25	9.8	3.7	12.9
2.1–5 acre	19.4	18.6	24.3	20.8
>5 acre	7.4	9.8	11.2	9.5
All	100	100	100	100

Source: Field survey

The findings of the study, like others earlier, show that landless agricultural laborers from Gujarat, Bihar, Madhya Pradesh, West Bengal, and Jharkhand, who are trapped in debt bondage and belong to the lower social groups (STs and SCs), are predominant among seasonal migrants (Breman 1994; Deshingkar and Farrington 2009). The National Sample Survey Office (NSSO) data (2007–08) confirm the higher ratio of migration among ST and SC people.

The proportion of women in total migrants is very low. It is less than 10% in the construction industry and the diamond industry and less than 1% in the textile industry. This perhaps implies that in many cases women take care of the old and children at home, along with doing whatever labor market work is available. Besides, land ownership appears to be a most important determinant of migration. Households with large holdings are less likely to migrate. However, some of them migrate for supplementary income. In general, landless migrants are in the majority, followed by small farmers (1–5 acres). The relatively low share of households with 1–2 acres and 0–1 acre needs further investigation.[2] Reduced employment opportunities for casual workers in agriculture and the inability of the rural non-farm sector in the area of origin appear to be important reasons for migration.

Migrant Workers with Families

The data show that 28.57% of construction workers, 49.04% of textile workers, and 49.07% of diamond workers have migrated with their families and that overall 43% of workers have migrated with families. "Family" here also includes those who have migrated with brother(s) or father. In case of the construction industry, workers migrate with their spouses-children or with brothers or father, and they live together to minimize the living cost in urban areas. The male workers earn wages for the family; while wife cooks food for the family even sometimes they also work on construction sites and earn some money for family. In the case of the textile and diamond industries, the family migration is common for almost for half the migrant workers because of not only additional worker participation but also the greater dependence on domestic support for preparation of food and other family responsibilities, including looking after children.

The life is not very easy with family, particularly with wife and children. The conditions of the construction workers are the worst. Only 16.67% of these families live in pucca houses, 37% live in makeshift houses, and 47% live in tin sheds provided on worksites by the employers. Sixty-seven percent of these families do not have access to electricity, 57% have no water supply nearby, 74% have no toilet or bathroom facility, and 74% families do not have easy access to medical facilities. It is important to note that 90% of their children do not go to school. The conditions of living of the migrant construction workers are in a very depressing state.

The conditions of textile and diamond workers are slightly better; only 4% of diamond workers and 16% of textile workers live in makeshift houses. They also have better access to electricity (80% +) and higher access to a

water supply, toilet, and other facilities. Also, 93% of children of diamond workers and 60% of children of textile workers go to school. The language is a major reason why children do not go to school in the textile industry. Overall, their conditions are definitely less than desirable and far inferior to the conditions of the regular city workers. Skilled workers with better incomes have a chance to live a better life than the other migrant families.

Process of Migration

It is well known that mobility of labor takes place when workers in source areas lack appropriate options of employment and livelihood and there are expectations to get better jobs in terms of more days and comparatively increased income in the area where they intend to migrate. However, in the light of the growing population of unskilled labor, it is important to understand the process and reasons for migration.

The study indicates that relatives and friends are the main sources of information about the employment opportunities at the destination. In the case of the textile and diamond industries, the role of contractors is not very important. Usually, workers borrow money from relatives or others for travel and other migration-related expenditure. However, more than 91% of workers in the textile industry, 85% of construction workers, and 69% of diamond workers did not take any financial support from others for travelling to a destination. Even social group–wise, most workers paid for their travel on their own. In the case of diamond workers, their relatives who brought them paid for their travel costs.

These migrants are intra-state migrants as well as inter-state migrants. Intra-state migrants are largely from the tribal districts of Gujarat, mainly for construction work. The outside Gujarat migrants are mainly from 13 states of India, starting from the neighbouring Rajasthan and Madhya Pradesh to West Bengal and even Assam. In the construction sector, about 24% migrant workers come from Uttar Pradesh followed by Rajasthan (14%) especially from Dungarpur and Banswada, Madhya Pradesh (9%), and Jharkhand and Bihar (each 7%).

Getting cheap migrant workers from outside the state has become an important strategy of recruiting labor in Gujarat. Contractors are sent or they go on their own to bring required workers from distant places who end up as a captive labor supply willing to work for long hours at low wages. Employers prefer migrant workers so that they can segment the labor market for migrant workers to cut costs and to maximize profits.

Table 12.2 Industry-wise distribution of migrant workers by their native state

State	*Construction*	*Textile*	*Diamond*	*All industry*
Bihar	6.7	11.5	0.0	6.0
Chhattisgarh	1.9	0.0	0.0	0.6
Gujarat	30.5	7.7	79.6	39.8
Haryana	0.0	1.9	0.0	0.6
Himachal Pradesh	1.0	0.0	0.0	0.3
Jharkhand	6.7	1.0	0.9	2.8
Kerala	1.0	0.0	0.9	0.6
Madhya Pradesh	8.6	3.9	1.9	4.7
Maharashtra	1.9	1.0	2.8	1.9
Orissa	1.9	7.7	0.0	3.2
Punjab	0.0	1.0	0.0	0.3
Rajasthan	27.6	12.5	1.9	13.9
Uttar Pradesh	10.5	51.0	12.0	24.3
West Bengal	1.9	1.0	0.0	1.0
Total	100	100	100	100

Source: Field survey

Among textile migrant workers, 51% are from Uttar Pradesh. When these workers visit their homes, they usually come back with their unemployed relatives for work. Bihar and Rajasthan come next. In the case of diamond workers, 80% of migrant workers are from Gujarat: and within that, 55% are from Junagadh (39%) and Bhavnagar (16%) districts; Uttar Pradesh is the second largest supplier of workers in diamond industry. The other states (that is, Madhya Pradesh, Rajasthan, and Maharashtra) contribute less than 3%. More than 99% of migrants are from rural areas, and Uttar Pradesh (24%), Rajasthan (14%), and Bihar (6%) are the main sources of migrant labor from outside the state in the three industries. According to NSSO (2007–08) also, Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand, and Orissa are the major states where migrant workers come from (Table 12.2).

Reasons for Migration

A major reason for migration is lack of adequate employment opportunities at the place of origin and the urge on the part of households to improve their livelihood opportunities. This includes non-viability of small and marginal farmers, growing landlessness, increased frequency of droughts and other natural disasters, absence of multiple cropping, degradation of forest, and depletion of water resources—all of which has resulted in

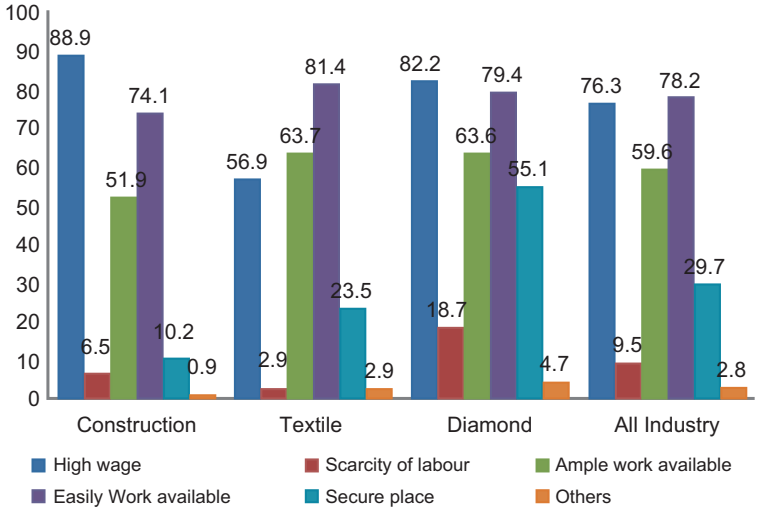

Fig. 12.1 Main reasons of migration

distress migration, which seems to be rising over the years. In addition, poor infrastructure and lack of adequate non-farm employment opportunities as well as overall neglect of these areas by their respective governments are responsible for increasing out-migration of labor to better-off urban centers (Fig. 12.1).

Growing power of Naxalites also has been observed an important reason for out-migration especially from Chhattisgarh. The reasons for migration to Gujarat are shown in the chart above. Higher wage rates, ease of getting work, and more job opportunities are the main reasons to come to Gujarat. Eighty-nine percent of construction workers, 82% of diamond workers, and 81% of textile workers have given these reasons. The facilitating factors are also the contractors (who visited their village or were from their village) and relatives and friends of migrant workers. That is, better employment opportunities and high wage rates motivate workers from a large number of states to migrate to Gujarat.

Terms of Employment, Including Wages and Working House

It is important to note that the majority of workers get work regularly when they are brought on contract. In the case of the construction industry, skilled workers as well as unskilled workers are contract workers.

The workers from Naka are usually casual workers. In the case of the textile industry, all (100%) migrant skilled workers get more or less regular work. Among migrant diamond workers, 91% get work regularly.

Construction workers get work for 8–9 months in a year, as there is a lean period in this industry during the monsoon season. Migrant workers in the other two industries get work throughout the year. Table 12.5 presents data on the number of days of work that migrant workers get per month. Skilled migrant workers in the textile and diamond industries get 24–25 days of work largely because their work is regular in nature. In the case of the construction industry, skilled workers get work for about 16 days a month depending on the cycle of activity. The unskilled workers in this industry get 27 days of work when on contract. Unskilled casual workers get 4.4 days of work, and skilled workers get 8.5 days of work; both are usually Naka workers. The case of machine operators is different (they get about 29 days of work), as they are brought in when there is work on construction sites (Table 12.3).

The monthly wage incomes are the highest in the diamond industry, as the work is skilled and the value added is high. They are followed by construction workers and then by textile workers. The monthly wage income among diamond workers is almost two times more than among textiles workers and 1.7 times more than among construction workers. The monthly wage incomes are higher for all skilled workers in all three sectors, and highly skilled workers (heavy-machine operators) in construction work get higher wages than skilled workers in the textile industry (Table 12.4).

Table 12.3 Employment intensity by skill level and industry (in number of days per month)

Skill status	*Construction*		*Textile*		*Diamond*	
	Regular work	*Irregular*	*Regular work*	*Irregular*	*Regular work*	*Irregular*
Unskilled	22.6	4.4	22.8	0	0.00	0
Skilled	16.2	8.5	24.3	1.7	25.4	0
Semi-skilled	0	0	25.1	0	0	0
Machine operator	28.8	0	24.9	0.8	0	0
Supervisor/contractor	28.7	0	25.5	0	26.0	0
Average for all	18.5	7.0	24.5	0.9	25.4	0

Source: Field survey

Table 12.4 Average monthly wage income of migrant workers by industry and skills status (in Rs)

Skill status	*Construction*	*Textile*	*Diamond*
Unskilled	6400.0	5136.6	0.00
Skilled	8002.6	7525.2	12863.1
Semi-skilled	0.0	7626.8	0.00
Machine operator	8825.0	6098.1	0.00
Supervisor/contractor	11333.3	4725.0	15600.0
Average for all	7754.6	6759.8	12888.7

Source: Field survey

In regard to construction workers, the study shows that unskilled workers work up to 9 hours per day. The Naka workers (construction industry) who are frequently paid on a daily basis work for 8–9 hours, whereas the non-Naka workers brought by contractors work for more than 10 hours daily. In the case of migrant textile workers, 78% work between 10 and 12 hours. In the case of migrant diamond workers also, the majority (96% or more) work between 10 and 12 hours a day. There are several cases of textile workers doing double shifts, which shows how stressful life is for those workers.

The main reason for long hours of working is that almost all workers are paid piece-rate wages. Contractors take work from workers on work basis and try to maximize profits by pressuring workers to work long hours. In fact, this is the reason why workers are brought from outside: they work for long hours, complete work faster, do not ask for higher wages, and are docile and obedient. Employers with the support from contractors are able to segment the labor market to treat these workers separately from the local workers.

Social Security of Migrant Workers

The most common social security is compensation for injury due to accident at the workplace. Although construction work is the most accident-prone industry, less than one fifth of the workers get financial support in accidents. In many cases, these workers are asked to go back home if the injury is serious. The percentage of beneficiaries of accident insurance is higher in textiles (21%) and in the diamond industry (29%). Our study shows that the amounts are very small—much less than the actual expenses—ranging from 20% to 50% of the actual expenditure.

In regard to group insurance, the diamond workers are far ahead of other workers. They are also far ahead in accessing subsidized food and canteen facilities. It is important to note, however, that these facilities are available only in large diamond units, which polish large diamonds, which need high levels of skills, and which need to retain skilled workers. A weekly holiday is not available to all workers, and medical leave and insurance are also not very common. Even the Provident Fund (PF) is available to only 1.85% of migrant construction workers, 10.78% of migrant textile workers and to move at all in diamond workers.

As was argued by the leaders of the diamond industry, workers in this industry do not want social security, because they are very mobile. This could be true for some workers in small units, but it could not be true for large-factory workers. Another study of ours has shown that, after the severe crisis in this industry in 2008–09, most workers have realized the importance of social security measures (Hirway 2009). The main reason is that most small units in the industry are operating illegally. They do not get registered under the Factories Act, because they do not want to get bounded by its provisions; and they cannot get registered under any other act, because that is not allowed legally (Hirway 2009). What they do is group insurance, and they get benefits from the Surat Diamond Association, which spends some amount on the welfare of these workers. The textile industry is relatively better in terms of registration and labor law and as a result workers get some PF and other social security. Construction workers are at the bottom, and they are almost left out of social security except for some workers who get support in the event of accidents. The overall low level of social security for migrant workers indicates poor enforcement of labor laws and schemes for labor (Table 12.5).

Housing Condition

This study reveals that about 52% of unskilled workers in construction have no proper living place and consequently live in non-durable (Katcha) houses. In the case of skilled workers, machine operators, and supervisors and managers, the majority live in semi-pucca or pucca houses in all three industry groups. More than one third of textile migrant workers and 83% of diamond workers live in pucca houses.

Table 12.5 Coverage of migrant workers under social security benefits

Social security schemes	*Construction*	*Textile*	*Diamond*
PF	1.85	10.78	0.00
Insurance policy	0.00	3.92	0.00
Group insurance	0.93	2.94	28.04
Weekly holiday (paid leave)	1.85	7.84	0.00
Medical leave	2.78	0.98	0.00
Canteen facility	2.78	12.75	39.25
Subsidized food	0.93	3.92	11.21
Financial support in accident	19.44	20.59	28.97
Others	0.00	0.00	26.17

Source: Field survey

Construction workers usually live on the worksites more or less as captive workers. These houses are usually tin houses without any ventilation and get very hot in summer. Drinking water is available but its quality is doubtful. The toilets are open spaces except when they get Sulabh units nearby. The other construction workers live on the roadside or in illegal slums, which are not even recognized as slums by the city's local body. The basic facilities and amenities are totally absent here. As one would expect, skilled workers are relatively better off in all three sectors (Table 12.6).

Access to Health Facility

Once again, skilled workers are better off than the other workers in terms of access to health facilities. Also, there is a significant difference in access to health facilities between different industry workers. Migrant diamond workers are better off, followed by textile workers and then construction workers. About 64% of machine operators in textile use public health facilities compared with 25% in construction. Overall, migrant workers use private health facilities rather than public health facilities primarily because workers do not have much faith in public health facilities. Also, public facilities frequently do not have medicines and sometimes even doctors are not available. The waiting time is also long in public hospitals. Even low-income migrant workers depend on private health facilities.

It is important to add that unskilled construction workers visit medical facilities only when the injury or sickness does not allow them to work. Compared with this, the other workers use these facilities more frequently.

Table 12.6 Type of housing conditions at the place of destination

Skill status	*Construction*			*Textile*			*Diamond*		
	Katcha	*Semi Pucca*	*Pucca*	*Katcha*	*Semi Pucca*	*Pucca*	*Katcha*	*Semi Pucca*	*Pucca*
Unskilled	52.0	44.0	4.0	33.3	55.6	11.1	0	0	0
Skilled	35.5	44.7	19.7	13.9	55.6	30.6	1.9	15.1	83.0
Semi-skilled	0	0	0	5.6	27.8	66.7	0	0	0
Machine operator	25.0	75.0	0.0	16.2	51.4	32.4	0	0	0
Supervisor/manager/contractor	0	66.7	33.3	0	100	0	0	0	100
Total	38.0	46.3	15.7	14.7	50.0	35.3	1.9	15.0	83.2

Source: Field survey

A Katcha house is made with dried brick and mud with timber columns and beams or corrugated galvanized iron (CGI) sheets

A semi-pucca house is made with good brickwork with cement mortar and reinforced cement concrete/CGI (RCC/CGI) roof but without RCC beam or column

A pucca house is made with RCC roof and beam or column with wall made by bricks and cementing on it

Large units have basically three types of health facilities provided by employers to workers. Employers tie up with private hospitals or they send patients to government hospital or sometimes units have in-house doctors for addressing injuries. In the diamond industry, about 14% of the establishments have their own doctors. However, unskilled migrant workers in all three sectors get treatment mainly in public health facilities.

Local Versus Migrant Workers

As mentioned earlier, we investigated a small sample of local workers in each industry to find out the major differences between their terms of employment in comparison with those of migrant workers and to see whether there were any conflicts between the two categories of workers.

Our discussions with the employers show that migrant workers are brought in because employers want their work to be finished fast at the lowest cost. They prefer migrant workers to local workers because they want large numbers of workers at a time, who can work for longer hours and at lower wages. Coming from distant places, migrant workers, on the other hand, need work urgently and are prepared to work hard to earn wages. They are brought in by contractors and are frequently captive and easy subjects of exploitation. They are not likely to form unions and, being badly in need of work, are obedient and docile. Employers therefore segment the labor market and employ migrant workers at different terms of employment to reduce costs and earn higher profits.

In the case of construction workers, local and migrant workers do not cross paths; captive migrant workers on the worksites and the workers brought from outside on contract work and live separately. This is because the work here is performed exclusively by migrant workers. In the case of casual workers, particularly at Nakas, local workers do feel that migrant workers tend to reduce the wages and, by working for long hours, create problems for local workers. But no serious conflicts have been observed.

In the case of diamond workers, the share of migrant workers in the industry is so large (more than 90% of workers) that conflicts are almost non-existent. In the case of the textile industry, there have been cases of conflicts, as migrant workers are prepared to work for lower wages and for longer hours. This is particularly so because in the past, when large composite textile units were predominant and workers were unionized, workers (who had settled down in the city) earned higher wages and had better social security and better bargaining power. In the absence of such large composite mills and strong unions, however, there is a certain level of

animosity between local and migrant workers. But no serious conflicts have been observed, perhaps because there are no strong unions to help local workers now.

What Do Migrant Workers Gain Through Migration?

Remittances

One important reason for workers to migrate is to earn higher incomes for their families. Unless the workers live with their entire families, they prefer to send money home in the form of remittances. The percentage of workers sending money home is the highest among construction workers, followed by diamond workers and then by textile workers. Those workers who do not send money home either have no savings to send home (construction workers) or migrate with families and take some money home only when they go back (Table 12.7).

Use of remittances by workers:

The non-consumption expenditure of construction workers is mainly for house repair, repayment of debt marriage, and social functions. Migrants in the textile industry have used the money for payment of debts (19%), house repair and renovation (17%), and marriage and social functions (16%). They have also made some savings in the bank (2.9%). In contrast, about 58% of workers in the diamond industry keep their income as savings in the bank and even one third of workers reported that they have used a certain amount of wage income for purchasing land or houses.

Table 12.7 Migrant workers and remittance

Skill status	*Construction*		*Textile*		*Diamond*	
	Total workers	*Percentage sending remittance*	*Total workers*	*Percentage sending remittance*	*Total workers*	*Percentage sending remittance*
Unskilled	24	95.8	9	33.3	0	0.0
Skilled	75	89.3	37	78.4	107	73.8
Semi-skilled	0	0.0	19	84.2	0	0.0
Machine operator	3	100.0	37	64.9	0	0.0
Supervisor/ contractor	3	100.0	2	0.0	1	100.0
Total	105	91.4	104	69.2	108	74.1

It has been found that an important part of the expenditure for consumption worked as consumption smoothing, which is the main part of the expenditure. Although some investments have been made in housing repairs and purchase of houses, not much has been invested in productive assets. In the case of construction workers, there are almost no productive investments made from the remittances. In the case of textile workers also, productive investments are low; however, there are some workers who have saved some amounts in banks. Workers have used remittances for a variety of purposes, including for consumption.

In the case of diamond workers, however, there are some households that have invested in productive assets/business and some have accumulated modest savings. Our discussions also revealed that it is not uncommon for diamond workers to start their own business after a few years.

Skill Up-gradation

The skill up-gradation can be another positive outcome of migration. If migrant workers can learn new skills, they can enjoy upward mobility in the place of destination or can use the skills in the place of origin to improve their earnings and also to contribute to the development of the place of origin gradually.

Our investigation shows that, among migrant construction workers, 22% reported that they gained working skills after coming to the city. Skill improvement works is 35% of textile workers and 70% of migrant diamond workers. These skills are acquired on the job, as there are no formal training courses for them, except in large diamond units, where special training is given to workers. It is important to add that the skills are improved in the case of those with some basic skills. Unskilled workers do not usually gain much. However, in the case of those who gain skills, whether they can use those skills after going to their village is very doubtful. In the case of diamond workers, there are cases where some workers have set up their own independent units in Surat city. In the case of the other two sectors, there are not many direct gains.

Future of Migrant Workers

How do migrant workers look at their future? Do they want to live here for some years or forever? Or do they go back to their own village? Construction workers, who work for 8–9 months a year, mainly want

to work in the city (83%) "till work is available", which also implies that they will work in the city until they are strong enough to perform this strenuous work; 4.6% want to stay in the city for 5–6 years, whereas 4% want to be here for about 10 years. This is because they believe that they will earn enough by this period or they will be able to work until this period. Only 7.4% of construction workers intend to stay here for good. Those who want to stay here are all skilled workers—masons, carpenters, and other specialized workers—who earn better and who believe they will be able to settle down here as there is good demand for their work. One percent of workers are undecided. In other words, it is the skilled workers who think they can settle down in the city of their migration.

In the case of migrant diamond workers, 28% want to stay in the city permanently whereas 32% want to stay until work is available. Surprisingly, 28% of diamond workers are undecided mainly because they are not sure they can survive in the city. These data, however, should be seen in the context of the experience of the global crisis in 2009, when 50% of diamond workers had to leave the city. Overall, it seems that workers in the diamond industry are inclined to stay back if work is available unless they have some strong reasons to go back. In the case of textile migrant workers, almost 80% want to work until work is available and 13% want to settle down here. The rest are undecided.

The response to questions about their expectations and aspirations for the future revealed that, except for unskilled construction workers, all workers want a brighter future for their children. Almost all of them want their children to study well and take up a government job (perceived to be permanent and safe) or start a new business (mainly diamond workers). Unskilled construction workers, who are trapped in the vicious circle of hard work and low returns, are hopeless about their future as well as the future of their children. Migration is basically a means of survival for them. They fear that their children will migrate like them and survive on meagre incomes.

In short, skills and round-the-year employment tend to encourage some workers to stay on in the city. However, there is always an element of uncertainty in the minds of these workers, as a lot depends on how long the work will be available. The relatively low wages and lack of social protection do not encourage them to stay on. Only those who have been able to make some savings are sure of their ability to stay on.

Migration and Government Interventions

Central and state governments—at the origin and at the destination—are expected to play a critical role in forging linkages between migration and development in multiple ways. These governments are expected to work together to formulate and implement policies and activities related to migrant labor. To start with, government interventions are expected to regulate wages and working conditions of migrant workers and ensure better living conditions; to ensure minimum social protection in the events of injury, sickness, death, old age, and maternity; to provide access to basic services such as education and health facilities and to government schemes such as the public distribution system (PDS) and Integrated Child Development Services (ICDS); and to design mechanisms to receive grievances of workers and ensure redressal of the same. It so happens that our legal framework is designed to provide these facilities though sometimes in a scattered and ad hoc manner.

As all migrant workers are in the informal sector or are informal workers, they are not covered by the formal sector labor laws. They are therefore expected to be covered by a set of labor laws meant for informal workers.[3] These laws are not comprehensive in the sense that they have been designed in an ad hoc manner as and when needed.

Our primary survey shows extremely poor performance of the labor laws and the other services provided by the central and state governments. A negligible number of migrant workers in all three sectors are aware of the labor laws designed for their protection and well-being. These laws are not enforced satisfactorily due to the lack of adequate machinery, the absence of complaints from the workers, and low motivation of employers to enforce laws. Limited social security schemes are available to workers.[4] The schemes like Rashtriya Swasthya Bima Yojana (RSBY) or Aam Admi Bima Yojana (AABY) are not accessed by any of the migrant workers.

In regard to public services, construction workers are in the worst situation. They do not have any access to PDS, ICDS, or public educational institutions and they have very limited access to health services. The other two sectors are slightly better but far from satisfactory.

One major problem with all the governments is that labor is not a priority area, as reflected in the funds allotted and staff appointed in the ministry. The indifference of the government is reflected in tremendous understaffing (Hirway and Shah 2011a, b) and in the very slow progress

of enforcement of the welfare schemes and basic services to migrant workers. The fact that the present policy orientation is in favor of industries also makes the machinery to neglect the interests of labor.

It is beyond the scope of this chapter to discuss all the labor laws applicable to migrant labor, but our assessment of the Interstate Migrant Workers Act (ISMWA) shows that it is grossly violated in multiple ways. To start with, the Gujarat government does not have any reliable data on migrant workers coming to Gujarat, such as their starting period of migration of their states, activities in which they are employed, or terms of employment. The labor department therefore has no information on where and how to find migrant workers and how to enforce the ISMWA. Contractors bring workers to Gujarat without proper licenses; employers do not report their correct numbers, as they worry about the obligations to these workers; very few workers get an identification card from the government boards as they usually cannot provide a certificate of construction work of 90 days; and neither workers nor their employers are aware of the provisions of the Act nor are they interested in implementing the Act.

In the case of the diamond industry, not even 10% of diamond units are registered under the Factories Act although they are expected to do so. The small number of registered units are large units, which also underreport the number of workers. Not all power looms are registered under the Factories Act. Again, registered units also underreport the number of workers to escape obligations toward the labor. In short, there are no accurate estimates of migrant workers employed in the three sectors. The Government does not have any basic database on migrant workers and therefore are oblivious to the dimensions of their tasks pertaining to migrant workers.

To correct this enforcement failure, one of the primary tasks to be undertaken is to make migrants visible in the data by mapping the major flows of migration. A comprehensive study can be sponsored by the state government. The study can help in providing proper framework for identifying migrant workers and institutionalization of a data collection. The another important step would be to set up a special cell in the state labor department for migrant workers, where the concerned officers of the Gujarat Government, along with the officers of the governments of the states of origin, representatives of labor and experts can sit together to design and monitor major policies and programs. Without

the involvement of all stakeholders, it will not be easy to address the concerns. This may need a major amendment in the ISMWA, as the present act does not include an institutional setup to sort out the major concerns of migrant workers.

Unionization or mobilization can help here significantly, in terms of creating awareness as well as mobilizing collective strength for better bargaining. However, none from the sample of 317 workers studied has joined any union. The discussions revealed that the workers were afraid or losing their job if they joined a union. Employers clearly do not like workers forming or joining unions. The pervasive insecurity forces the migrant workers to earn incomes for survival or to diversify their risks to address their vulnerability, whatever the adverse conditions that they have to face. They are totally at the receiving end and accept whatever is available to them. They are not in a position to demand their rights from employers. It will not be out of place to mention the efforts of PRAYAS, a non-governmental organization that is trying to organize seasonal migrant workers in Gujarat to improve their well-being (Hirway et al. 2014). Although they have acquired some success in terms of helping isolated cases of migrant workers in crisis, they find it difficult to unionize these workers because most of them are seasonal short-duration workers and scared of any confrontation. Second, their employers are against unions (in fact, some PRAYAS workers were badly beaten up). Third, the government is not adequately supportive of unions. It will be useful if the role of trade unions is appreciated by the state government and their existence is recognized formally.

Toward a Fair Deal

Overall, migrant workers live in difficult conditions. Unskilled seasonal workers in the construction industry are the worst off workers, followed by other unskilled workers with low wages and uncertain jobs. With poor working and living conditions, they are highly insecure and vulnerable. Their access to basic necessities of life is extremely poor. In fact, these workers are a classic case of poor workers from poor states contributing to the growth of rich states, where they are treated almost as sub-humans.

The problem of migrant workers is indeed a highly complex one. How to turn this distress migration into healthy mobility of labor and how to use it for forging linkages between migration and development are important

concerns for policy makers. Seasonal migration is basically a coping strategy of poor households who migrate to urban areas to survive and to diversify their income sources to reduce risk and vulnerability. They are at the receiving end and are too weak to demand their legal entitlements. Although skilled migrants are in a slightly better position, skilled construction workers get work for a limited period, and skilled migrants in the textile and diamond industries, in spite of earning relatively higher wages, frequently have poor social protection and poor living conditions. Workers from small units in particular often live in shared rooms and save remittances home to enable their families to survive.

What kind of developments can one expect from the above scenario in the context of the relationship/linkages between migration and development? There appear to be two flows that are likely to move toward a healthy transformation of the economy: (i) skilled and semi-skilled migrant workers in non-seasonal economic activities may consider settling down in urban centers and thereby become part of the diversified national employment structure or (ii) migrant workers, including seasonal workers, who send remittances home may develop or strengthen their livelihoods in the areas of origin and settle down as return migrants. However, both trends appear to be too weak at present and, unless supported by adequate external interventions, may not facilitate a smooth structural transformation.

Given the emerging reality at the present stage of development, rural-to-urban migration is inevitable. For a healthy transformation of the workforce from rural-to-urban areas, it is necessary that they be protected by a minimum package of social security,[5] employment security, their working and living minimum wages, and access to basic services through a set of labor laws. However, the moment they enjoy these laws and social protection, they will not be of special advantage to employers, who have segmented the labor and migrant workers to exploit their vulnerability to earn extra profits. Such resistances could be overcome by improving urban infrastructure, including transport, power, housing, public education, and health facilities, which would reduce certain costs of the employers and enable a better deal to workers.

The second positive movement could be that migrant workers create employment opportunities for them in the area of origin by using their remittances and skills. At present, remittances are used for consumption purposes—debt repayment, social functions, housing repair, maintenance,

and renovation—and rarely for buying productive assets. This trend of buying productive assets is too weak to create a livelihood in the area of origin or to promote development of the area of origin. In other words, if the distress migration has to stop and opportunities in the area of origin have to expand there, the state government will have to enforce certain income-enhancing programs like the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in a better way and to develop basic socio-economic infrastructure as well as ample employment opportunities.

It is interesting to note that while 28% of migrant diamond workers and 13% of migrant textile workers want to settle down in the area of destination, only 7% of construction workers express such an option. The role of the government policy toward migrant workers is critical here. Government's commitment to labor in general and to migrant workers in particular is essential. Also, higher remittances are possible only with the enforcement of the labor laws and social security schemes.

Mobilization of migrant workers is another major factor that can change the life of these workers. Our study of a union of construction workers has shown that mobilization of migrant workers is an extremely difficult task, as employers are against it; government does not provide protection to unions; and workers who are at the receiving end in the labor market have no courage to mobilize for their rights. Finally, without an enabling development paradigm, not much is likely to be achieved. Distress migration has its roots in the underdevelopment of the states of origin, and a pre-condition for healthy transformation of the workforce has its origin in labor-intensive growth path. Both need an enabling development paradigm.

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Notes

1. This paper is based on our large study on "migration and Development: A Study of Rural to Urban Temporary Migration to Gujarat State" sponsored by Sankaran Chair at NIRD, Hyderabad.
2. Earlier studies on migration have also found similar observations (Deshingkar and Start 2003, for example, found that the scheduled tribes had higher migration rates in Andhra Pradesh and Madhya Pradesh. Revealed same observation in their study in Chhattisgarh. Devi, Geetha and Gomathi (2009) have found higher ratio of migration in backward community is because of having limited income opportunity at their origin state.
3. A total of 47% migrant workers are landless and majority of workers in each caste category belong to same land owning class. About 48% of the migrant workers are landless which confirm that about half of total population move towards cities due to the less opportunity in agriculture sector.
4. These are the payment of wages act, the minimum wages act, the workmen's (employee's) compensation act, the contract labour act, the maternity benefit act, the interstate migrant workers' act, the building construction workers' social security act as well as social security schemes and right based acts and services.
5. The only social security available to some is provident fund: 2% of workers in construction work and 11% of migrant workers in textile get provident fund. Group insurance scheme provides insurance to 28% diamond workers, but this insurance is available to only 5% workers in textile units and less than 1% in construction industry. Any form of health insurance is not accessible to construction workers while it is available to 3–5% to other sector workers.

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CHAPTER 13

The Life and Times of Migrant Workers in Chennai

J. Jeyaranjan

Introduction

Tamil Nadu is one of the more industrialized and urbanized states in the country. It has been a fast growing economy particularly since the 1990s. The gross state domestic product of the state grew at 6% during the decade between 1991 and 2001 and had picked up momentum during the next decade when it grew by nearly 8%. All the sectors have grown faster during the recent decade as compared with the previous decade. The state has emerged as an attractive destination for Foreign Direct Investment inflows. With a high human capital index, the state also boasts of a well-qualified labor force and complements this by having about as many technical institutes as any other state in the country. The state is also reputed for its excellent physical infrastructure and ranks among the top in terms of infrastructure index. It is not only home to third largest number of Special Economic Zones (SEZ) in the country, but importantly has used the SEZ route to attract productive investments in sectors like automobiles and electronics.

J. Jeyaranjan (✉)
Institute of Development Alternatives, Chennai, India

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Greater Chennai had always been an industrial hub of the state. The northern and western suburbs are known industrial belts, whereas the south and central suburbs were mainly the housing and service belts. The geographical pattern got strengthened further with the new boom that has taken place during the last two decades. Many new industrial units had come up in the northern and western belts. Most of the automobile manufacturing units are located in this belt. All of the software firms are located in the southern belt of the city. These two booms were accompanied by a construction boom. Housing, office, and commercial space and infrastructure were the main construction activities in the Chennai metropolitan area.

The rapid growth in manufacturing and the service sector created a massive demand for workers in various activities. The existing supply channels were unable to meet the increased demand for labor. When this boom was taking place in and around Chennai, employment in the rural nonfarm sector was growing very rapidly in many parts of the state, absorbing a large proportion of rural labor. Consequently, labor migration from within the state toward Chennai, the traditional destination for seasonal migrants, was on the decline. The labor market tightened further when the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was introduced and a free rice scheme was implemented. The small- and medium-scale manufacturing enterprises as well as construction firms were experiencing increasing labor shortage. It was at this time that the migrant workers from the North and the East of the country started flowing into various sectors. What started as trickle has swelled into the most important labor supply stream. The manufacturing and the services activities in and around the city of Chennai increasingly depend on the migrant workers. This phenomenon of ever-expanding migrant workers in various employment centers is widely reported in the state.

The Present Study

The present study is an attempt to understand the working and living conditions of temporary or seasonal rural-to-urban migrants with a focus on one major metropolitan agglomeration via Chennai, the capital city of Tamil Nadu. Since there is no source by which the universe of temporary urban migrant workers can be built up, for the sake of convenience the study is confined to three major but broad sectors of employment, namely construction, manufacturing, and services. In each of these sectors, a number of firms or enterprises are identified largely on the considerations of accessibility

rather than size of operations. From each sector, a manageable size of sample units of long-distance inter-state temporary migrants is selected for the study. It may be necessary to mention here that the selected sample respondents are all inter-state migrants, meaning that the sample does not include anyone from within Tamil Nadu. The overall sample single is three fifths migrant workers, 100 from the construction sector, 100 from manufacturing, and 115 from the service sector.

The study relies on fieldwork, including both qualitative and quantitative methods. A structure questionnaire was to collect data from the selected migrant workers. This was supplemented by case studies; on-site observations; informal discussions with workers, employers, and officials; and interactions with local citizens and workers. However, the present presentation does not include case studies.

Since the study aims at capturing the living and working conditions of rural-urban temporary migrant workers, the scope of the proposed definition for the present study is much broader and deviates especially from the narrow definition used in India. In India, temporary migration, seasonal migration, short-term migration, and circular migration are used interchangeably (Keshri and Bhagat 2012). The Census defined it as referring to those staying away from their usual place of residence for less than one year. The National Sample Survey (NSS) earlier (55th Round 1999–00) referred to those staying away for two months or more but less than six months but later (66th Round 2007–08) defined temporary migrant "as a household member who has stayed away from his or her usual place of residence for one month or more but less than six months in the last 365 days for employment or in search of employment".

For the purpose of the study, a temporary or circular migrant worker is a person who stayed away from his or her village for work or seeking work and is bound to return to the usual place of residence after a certain period; the period could be relatively short as in seasonal migration in India or long as in "peasant migration" in China.

Socio-Economic Profile of Migrant Workers

Origin of the Migrant Workers

As mentioned earlier, the choice of the sample of migrant workers includes those from Tamil Nadu. The surveyed migrant workers had come from twelve different states of the country and from Nepal as well. We discerned

during our fieldwork that a few migrant workers were from Bangladesh but they concealed their place of origin and claimed to be from either Assam or West Bengal. The largest number of migrant workers to Chennai is from Assam (about 23%) followed by Odisha (14.6%), West Bengal (14%), and Bihar (13.7%). Andhra Pradesh (9.5%) and Tripura (0.3%) are other important origins. Region-wise, the largest number of workers in the sample are from the north east followed by eastern states. Together, they account for 60% of the workers surveyed in Chennai. Northern states account for about 25% of the workers. Interestingly, the southern states account for only about 11% of the migrant workers and none of the workers is from the neighboring Karnataka.

Age of the Migrant Workers

Most of the migrant workers are relatively young and particularly so in the manufacturing sector. The average age of the migrant workers in the construction sector is the highest at 35 followed by those who are employed in services with an average age of 31. The average age of migrant workers in the manufacturing sector is only 23 (Table 13.1).

Manufacturing employment requires some skill acquisition and also flexibility and ability to work with machines as many of the processes are semi-automated. The young migrant workers thus are found suitable and are engaged in relatively more rigorous manufacturing employment. The studies also include interviews with nearly 40 manufacturers in Chennai about their labor practices. All of them employ migrant workers either directly or through labor contractors and look for younger workers since they are alert and hard-working and also converable for some basic training to work in their factories. This gets reflected in the relatively young average age of workers in the manufacturing sector as compared with those in the other two sectors.

Table 13.1 Average age of migrant workers across sectors

Serial Number	*Sector*	*Average age, years*
1	Construction	35
2	Manufacturing	23
3	Service	31
	Average	29

Source: Survey data

There seems to be a pattern in the migration stream into Chennai from various destinations as far as the age of migrants is concerned. Whereas the migrants from Eastern and Northern India are relatively young (with an average age of 28 and 29, respectively), those who have migrated from the North East and South are older (with an average age of 38 and 39). Migrants from Nepal are also older (an average age of 33). The age selectivity could be due to the type of industry and the specific occupation in which they are employed.

Caste Composition of Migrant Workers

Indian society is socially hierarchical, and the lower the social order, the less privileged the group would be. Temporary migration itself is an indication of a less privileged domain. Given the social deprivation of the lower caste groups, the tendency to migrate in search of better livelihoods is higher among them. Scheduled Caste (SC) migrants account for about 43% of the surveyed population, and 18% belong to Other Backward Classes (OBCs). "Others" constitute about 16%, and STs around 7%. Just 1% of the migrants are from the "open category" ("OC") group, and the social background of 13% of the migrants remains unknown. Of the total sample of 315, 42 (13%) did not reveal their caste identity, and of the remaining 273, SCs accounts for the highest proportion of 50%, followed by OBCs with 21%, and minorities and others (other than the OC) account for about 18%. Whereas STs accounts for only 10%, the "OC" was hardly 1% (Table 13.2). Although the sample is not based on a scientific design so as to reflect the

Table 13.2 Social group–wise distribution of the migrants

Caste/Community	*Number of migrants*	*Percentage*
ST	27	10
SC	136	50
OBC	58	21
Minorities/others	49	18
OC	3	1
Total	273	100
Non-reporting	42	–
Grand total	456 (3/5)[a]	–

Source: Survey data

[a]Excluding non-reporting

actual proportion of different groups in the universe, the fact that the random selection had such a low incidence of the so-called "upper caste" migrants does suggest that upper caste people are not part of this temporary migration stream.

Educational Attainment of the Migrant Workers

The vast majority of the temporary inter-state migrant workers who move seasonally in search of a livelihood are generally poorly educated. Much of the work available to them is manual in nature, or they are engaged in jobs that require minimal skills. At best, they are engaged to assist a skilled person and learn their skills on the job eventually to handle a skilled job. Also, the nature of production is such that with a few days of on-the-job training, these migrant workers are employed in production directly with the new kinds of machines that permit such handling.

About 38% of the migrant workers are not educated. About a fifth of them have completed primary school and another 22% have completed high school. Only about 6% are graduates or post-graduates.

Most of the migrant workers in the construction sector (62%) are uneducated. The lowest number of uneducated (9%) is employed in manufacturing. The number of uneducated workers employed in the service sector is significant at 43% (Table 13.3). The proportion of those who are educated and employed in manufacturing is higher at all levels compared with the other two sectors.

Least number of migrant workers from the North East and Assam are uneducated whereas it is quite high among the migrants from East, North, and South. Level of education is high among the North East migrants compared with all others in all levels of education. Surprisingly, the level of education is the poorest among the migrants from the South.

Among the SC migrants, who constitute about one third of the surveyed workers, about 35% are uneducated. Nearly 30% of the workers belonging to OBCs are not educated. However, 36% are educated only up to primary level and just 7% of them have gone beyond the primary level and completed high school.

While average educational level of the temporary migrant workers is low, it is particularly so among the SC and OBC workers and among the workers who are engaged in construction work.

Table 13.3 Educational status of migrant workers across sectors and regions of origin

Serial Number	*Sector*	*Educational level (percentages)*						
		Illiterate	*Primary*	*High school*	*HSC*	*Graduate*	*PG*	*Total*
1	Construction	61.8	7.8	15.7	10.8	1.0	2.9	100
2	Manufacturing	8.9	36.6	29.7	17.8	6.9	0.0	100
3	Services	42.9	13.4	21.4	13.4	5.4	2.7	100
	Total	38.1	19.0	22.2	14.0	4.4	1.9	100
	Region							
1	East	43.3	17.8	16.7	16.7	4.4	0	100
2	North	40.0	17.5	21.3	8.8	3.6	6.3	100
3	North East	24.2	22.3	239.3	20.2	4.0	0	100
4	South	69.7	15.2	6.1	3.0	3.0	3.0	100
5	Nepal	15.4	23.1	53.8	7.7	0.0	0	100
6	Total	38.1	19.0	22.2	14.0	4.4	1.9	100

Source: Survey data

The migrant workers reach certain destinations on the basis of their information, networks, work conditions, skill levels, and so on. Industry may prefer to get workers as per their specific requirements. Manufacturing, with its technology and machinery, may require young migrants with the ability to cope with the rigor of working along with semi-automated and automated machines. The construction sector, on the other hand, may not require that kind of labor. Similarly, services are an amalgam of so many different kinds of activities ranging from those with higher levels of education to those without any education. Although it may not be easy to say exactly what each sub-occupation requires, it may be possible to profile broad contours of origin, caste, and age selectivity of the sectors in employing the labor. While the age selectivity could be due to the requirement of the industry, the other two factors may be conditioned by the supply side.

Distribution of Migrant Workers by Place of Origin and Sector of Employment

The construction sector attracts vary few workers who originate from the North East, whereas most of the migrants from the South are in this sector (Table 13.4). Workers from the Eastern region work predominantly in construction (40% of them). For the workers from the Northern region,

Table 13.4 Percentage distribution of migrant workers by their region and sector of employment

Serial Number	*Origin*	*Sector*			
		Construction	*Manufacturing*	*Services*	*Total*
1	East	40	27.8	32.2	100
2	South	84.8	6.1	9.1	100
3	North	38.8	13.8	47.5	100
4	North East	7.1	57.6	35.4	100
5	Nepal	0	46.2	53.8	100
6	Total	32.4	32.1	35.6	100

Source: Survey data

construction is the second largest employment provider. None of the Nepali workers is in construction. Half of the migrant workers in the manufacturing sector are from the North East. Nearly 58% of the North East workers are employed in manufacturing. Very few from the Northern and Southern regions are employed in manufacturing. It is the North and the North Eastern region that accounts for more than 82% of the migrant workers employed in the manufacturing sector in Chennai. The service sector is predominated by the North East, North, and Eastern regions. Nearly half of the Northern region migrant workers are employed in the service sector. About one third of East and North Eastern workers are employed in this sector in Chennai.

Land and Housing at the Place of Origin

Another important indication of their states at the place of origin is their asset position. Although most of the migrants have agriculture as an important source of living at their place of usual residence, almost two thirds of them (65%) were landless. And another 28% had small-marginal holdings of less than five acres while only about 6% of them had more than five acres. The incidence of landlessness was highest among OBCs (76%) while nearly half (44%) of STs had land.

Migrants are deprived of housing in their destinations. This deprivation of housing becomes more stark if we compare their housing condition at the place of origin. Most of the migrants (95%) have their own housing at

their place of origin. True, about 28% of these houses were "katcha" houses but they were their own. But 72% of them had semi-pucca or pucca houses of their own. Only about 5% depended on rental housing at their place of origin.

The other important indicator of their position at the place of origin relates to public provisioning of certain services. About 88% of them had ration cards back home with access to a public distribution system (PDS). Almost two thirds of them depended on government clinics for their health problems and another 27% used both government and private health services. Thus, only less than 10% of them depended on purely private health provisioning at the place of origin.

Process of Migration

Motivation of Migrants

The process of temporary migration for work could be traced from the motivation to that of finding work and space for leaving at the place of destination.

There are two metrically conflicting views about temporary or seasonal migration. One proposition is that temporary or seasonal migration is induced by severe distress of households at the place of origin due to failure of agriculture or due to lack of any work to earn adequate subsistence. The other view is that people tend to migrate by accessing non-farm employment at higher earning even if it is informal in nature.

Reasons for Migration

That seasonal migration to Chennai is not due to distress is clearly evident from the survey data. It is not debt which has driven them to migration. Nor is it due to oppression. Augmenting the earnings is evidently the most widespread reason for migration. Only 4% of the respondents have reported that they migrated because of indebtedness. Less than 1% has responded that oppression drove them to migrate. Lump sum money requirement is stated to be the reason for migration by nearly 60% of the respondents. Better opportunities and money requirements are stated to be the reasons for migration by 23% of the workers (Table 13.5). Perhaps this kind of non-distress migration may indicate the positive frame within

Table 13.5 Distribution of migrant workers by the reasons for migration, Chennai, 2013

Reason for migration	*Number of workers*	*Percentage*
Indebtedness	14	4.44
Cultural oppression	3	0.95
Better opportunity	15	4.76
Lump sum money requirements	188	59.68
No other opportunities	24	7.62
Better opportunities and lump sum money requirements	71	22.54
Total	315	100

Source: Survey data

which the migration process takes place. This positive frame does not in any way absolve the exploitative labor market that cares the least for the welfare of the workers.

Source of Information for Migration

Access to information is a very important factor that influences the decision, process, and destination of migration. These kinds of seasonal migrations predominantly work in the realm of informality. Even the information is through the informal channels like the relatives and friends who would have migrated earlier and returned to the base for their annual visit lasting for a month or two. Potential migrants get the required information from them and often accompany them to their migratory destination. They may stay with them at the initial stages. They may be introduced to the potential employer by the senior migrant. Our survey results indicate that two thirds of the migrants have received information about the destination from friends and fellow workers. Relatives were helpful with information for 13% of the migrant workers. Just about 10% of them have come to know about the destination through the formal systems like advertisements, agents, and contractors (Table 13.6).

The information provided by relatives and friends may also be due to certain incentives from their employers. There are many instances where the potential employers as well as the contractors incentivize the existing

Table 13.6 Sources of information for migration

Source of information for migration	*Number of workers*	*Percentage*
Relatives	41	13.0
Friends/Fellow workers	209	66.3
Media/Advertisements/Press/TV	4	1.3
Agents/Contractors	27	8.6
Others	9	2.9
Relatives, friends, and fellow workers	25	7.9
Total	315	100.0

Source: Survey data

migrant workers to recruit new hands for them. The monetary incentive for each new recruit may ensure the efficiency of this system of recruitment as compared with other formal systems. For the potential migrant, the fear of the unknown is minimized if one could go with a neighbor or a friend to a far-off place than in the case of reaching the destination through an agent. The reliability of the information is also higher if it comes through known persons. But why information through friends and fellow workers had prompted so many to migrate whereas information through relatives has prompted fewer migrants is beyond our understanding and comprehension.

Source of Assistance and Quantum of Assistance

Once the information about the probable destination is gathered and the decision is made to move, the next step in the logistics is to look for resources, mainly finances, to travel and to meet the maintenance expenditure at the destination until employed. Resource-poor households may sell or mortgage whatever little assets they may have so as to mobilize the resources. Credit-worthy households may borrow from some sources to pay for the migration. Sometimes, the labor contractor may advance a sum to meet the cost. Nearly half of the migrants to Chennai have reported that they had their own savings to meet the cost. Another 32% had reported that someone in the family had provided the assistance. Sale of assets was a source of funding for just 1% of the migrants, and only an equal number had reported that an advance from employer was a source of finance for

migration. Around 11% of the migrants had borrowed to finance their migration. Thus, nearly 80% of the migrants had either their own resources or resources of their family members. The experience of these long-distance inter-state temporary migrants suggests that the unfair and extra-economic coercions that emanate from advances from employers or contractors have a limited role. Insignificant levels of asset sales to finance migration also go to indicate that the migrants are not so distressed. It is, however, not clear from where they could earn some money as well as save to finance their migration. One's own resources or family resources are the major sources in all social groups except scheduled tribes (STs) where dependence on borrowed sources is as high as about 44% of the cases.

On average, a migrant worker had mobilized Rs. 2230 to migrate to Chennai. Most of these workers (94%) are single migrants except in the case of construction sector.

How much do they spend to migrate or how much have they mobilized to migrate?

On average, a migrant worker had mobilized Rs. 2230 to migrate to Chennai. Most of these workers (94%) are single migrants. Except in the case of construction sector where about 10% of the workers migrate with families, in the case of workers in manufacturing and services, the number of migrants with families is negligible. As discussed earlier, many of the migrants are relatively young. In the case of manufacturing, all are first-time migrants. And in both construction and services, first-time migrants account for 88% and 91%, respectively.

Employment and Earnings of Migrant Workers

Nature of Contractual Arrangement

Several types of contractual arrangements are possible between the employers and the workers. Employing the workers indirectly through the contractors is the present trend. Even organized modern manufacturing units employ a substantial number of their workers through contractors. A set of contractors supply the required number of workers to such employers. There is no direct link between the actual worker and the employer. The wages are paid to the contractors and contractors in turn pay the workers or through lower-level intermediaries. In the process, a contract is in place only between the contractor and the employer. There is no written contract between the contractor and the worker. The workers are part of a group

and the leader of the group attaches himself and his group to a larger group and eventually to a contractor. When he moves, the group members also move. Individual workers, who are employed directly by the employers in smaller units and by small employers, are paid directly but they also do not have any signed contract. This is the common pattern that we found among the migrant workers. However, 99% of the temporary migrant workers surveyed reported that they do not have any written contract.

Skill Acquisition of the Migrant Workers

Our interactions with many employers suggested that the migrant workers are mostly unskilled when they land in the workplace. In many cases, certain basic or routine skills are needed. They begin as helpers to the skilled workers and over a period of time get trained on the job and become a full-fledged worker. The duration of training varies from job to job. Very few get their skills through formal training. The survey data reinforce this information. Nearly 83% of the respondents have learned their skills through work. Only about 3% have been formally skilled. Skill acquisition through work is as high as in 93% of migrant workers in manufacturing and 80% in services. Even in construction, certain basic skills are acquired in the case of 78% of migrant workers (Table 13.7). About 13% are not skilled and perhaps they are new hands who are in the process of acquiring skills at the time of our survey.

There is an incentive for the workers to acquire the skill as the wage levels are higher for skilled workers and also mobility across employers is easier. Most of the skills are of the nature that does not require technical education. Thus, acquiring some skill on the job is easier and there is

Table 13.7 Methods of skill acquisition by migrant workers

Serial Number	*Industry*	*Method of skill acquisition*			
		Learning through work	*Formal skill training*	*No skill acquired*	*Total*
1	Construction	78.4	0	21.6	100
2	Manufacturing	93.1	5.9	1.0	100
3	Services	80.4	2.7	17.0	100
	Total	83.8	2.9	13.3	100

Source: Survey data

scope as many employers constantly look for skilled workers. The interactions with workers indicated that the ease with which one could learn the skill is also part of the information that they get from their sources at the origin. We found that the migrant workers are trained within a week to operate semi-automated lathes in manufacturing units. In the service sector, migrant workers are employed initially in the back room operations while the front desk is handled by the local hands. But once they acquire some local language, they are also deployed in the front office. In construction, the migrant workers are given jobs which are risky in nature and which are not taken up by the local labor.

Thus, one finds that the nature of the labor market, technology, and level of skill required all combine to enable the migrant worker to acquire some skill rather quickly and get deployed as a full-fledged worker, enabling them to earn the market wages.

Working Hours of Migrant Workers

Migrant workers are more vulnerable than the local workers on several counts. One "positive" opinion about the migrant workers as compared with the local workers among all the employers is that they are "hard working". Once the food and shelter are taken care of, the migrant worker puts in more than 10 hours of work whereas the local labor will not work more than 8 hours unless paid overtime. This is another reason why the employers would like to employ the migrant workers. The results of the studies show that only 22% of the workers had worked for 8 hours per day. All others had put in more hours of work. A large number of workers (28.2%) had put in 12 hours of work which is equivalent to 1.5 shifts per day. About 9% put in 13 hours of work in a day (Table 13.8).

Table 13.8 Distribution of workers by the hours of work across the sector

Serial Number	*Sector*	*Hours of work per day (Percentages)*						
		8	*9*	*10*	*11*	*12*	*13*	*Total*
1	Construction	3.1	48.0	6.1	8.2	9.2	25.5	100
2	Manufacturing	34.3	23.2	9.1	2.0	31.3	0.0	100
3	Services	28.7	13.0	9.3	3.7	42.6	2.8	100
	Total	22.3	27.5	8.2	4.6	28.2	9.2	100

Source: Survey data

The highest work regimen by 13 hours per day is formed in the construction sector, where more than one fourth of the workers put up with that ordeal of work. Eight hours of work is available only for 3% of the workers in the construction sector. Eight hours of work is an exception in the construction sector, where nearly half of the workers work for 9 hours a day. There may be additional compensation for those who work for 13 hours, whereas putting in 9 hours of work is normal without any additional postponement in their daily wages. We also find that 43% of the workers in the service sector work for 12 hours a day, the highest among all the sectors, and about 31% of the workers in the manufacturing sector also work for 12 hours a day.

Days of Work Frequency of Wage Payment and Monthly Earnings

Since all the migrant workers are employed without any written contract and are employed on a casual basis, the number of working hours was more than the mandatory 8 hours per day, and interactions with the workers as well as the employers indicated that the payment for overtime wages was on the same rate for the first 8 hours of work. If the worker puts in an additional 4 hours of work, then half a day's wage is added to the daily wage and no other additional payments are made. Factories deployed workers for one shift and made them work for one and a half shifts at the time of slow down. They also saved on the additional payments like Provident Fund (PF), Employees State Insurance (ESI), and so on. Similarly, workers worked for 6 days in a week and Sunday was a holiday but not a paid holiday! But in some cases, workers could take time off only during the afternoon on Sundays. This is true among construction workers. Nearly 94% of the surveyed workers had reported that they have worked for 6 days a week. This, however, does not mean that the worker will be paid for the seventh day of the week. All the workers are paid at the end of the month but only for the number of days that they have worked in that month and there is no paid holiday for them. Some firms pay on a daily basis or on a weekly basis. It is predominantly (82%) a monthly payment for the migrant workers.

On average, a migrant worker of our survey earned Rs. 6907 per month. The lowest wage income was earned by the workers in the construction sector (Rs. 6333 per month). The highest wage income was

Table 13.9 Average month by earnings of the migrant workers across sectors

Serial Number	*Sector*	*Average monthly wage income (Rs.)*
1	Construction	6333
2	Manufacturing	6768
3	Services	7767
	All	69.7

Source: Survey data

earned by the workers in the service sector at Rs. 7767 per month. Workers in the manufacturing sector earned a monthly wage income of Rs. 6768 per month (Table 13.9).

Migrant workers also experience wage increases if they continue to work with the same employer for a longer duration. Wage increments are given on an annual basis. Many migrant workers are employed with the same employer for more than one year, and many have indicated that their wages have gone up since joining the present employer. The average length of employment of the surveyed migrant workers was 1.9 years. The longest duration of 2.3 years is in the service sector. Workers seem to stay with the employer an average of 1.4 years in manufacturing sector. Workers in the construction sector stayed with the employer for 2.1 years on average.

Nearly 28% of the surveyed workers are employed with the "current" employment less than six months. Another one fourth had been with that employment for less than one year. Half of them were with the same employer for more than one year. Continuous employment with the same job seems to be high in the service sector, where 62% of the surveyed workers have reported that they are with the same employment for more than one year. How does this duration of employment influence the wage increments of the workers?

About one third of the workers have not experienced any wage increment. But nearly half of the workers have worked for just one year. About 65% of the migrant workers have gotten one increment. A large number of construction sector workers have experienced an increment in wage income (84%), followed by the service sector (76%). Only one third of the workers in the manufacturing sector have gotten one increment. Very few of the workers across the sectors have gotten more than one increment.

Non-wage Benefits to Migrant Workers

All the migrant workers are casual workers and work without any contract. This is true irrespective of the sector of employment. Although they were paid a monthly wage to a large extent, other benefits like food allowance and a bonus may not be given to them. Only about 5% of the workers receive a bonus and food allowance. The rest are not provided any of the non-wage benefits. The service sector provides such benefits in a few cases (5% of the workers receive them) whereas in the other two sectors, no such payment exists for migrant workers.

Although most of the workers do not get any food allowance from their employers, access to cheap food is a great attraction for the migrant workers in Chennai. All the migrant workers as well as the employers in the study emphasized the easy access to PDS rice in Chennai. Tamil Nadu has universal PDS. Every card holder is entitled to 20 kg of rice every month free of cost. This rice is available in the market for Rs. 3–4 per kilogram and sometimes the staff of the fair-price shop sells the surplus rice at this rate. Migrant workers get this rice and cook their food. Consequently, the overall food expenditure for the migrant workers is a small fraction as compared with migrant workers in other States. In addition to this access to cheap rice, the State runs subsidized restaurants where food is supplied to anybody at a heavily subsidized rate (Rs. 5 per plate of sambar/curd/mixed rice and Rs. 2 for a plate of idly and pongal and Rs. 5 per plate of three chappathis and dhall during the night) in several places in Chennai. Most of the migrant workers access either of these channels or both and say that they could save substantial wages to be sent home. In a sense, the State indirectly subsidizes the employers of migrant workers through PDS and directly subsidizes through the subsidized "Amma Unavagams" (the subsidized canteens). Migrant workers from eastern and northeastern India find such cheap rice a great opportunity to eat well as well as save quite a bit.

Migrant Workers and Social Security Benefits

Apart from the wages paid to the workers, some employers provide some of the social security benefits even if they are not formally employed through a written contract. The employers are to provide such benefits to all these migrant workers as per law as they are employed throughout the year without any beak. However, only very few workers receive such benefits.

Employees' PF (EPF) was available for only about one fifth of the workers, and ESI was available for just about 15% of the workers. Less than 1% of the migrant workers get paid medical leave. Canteen facility in the workplace and food subsidy are available for about 9% of the workers. About half of the workers get at least one of these social security benefits and the other half does not have even one of these benefits.

Construction is the worst sector, which provides no social security benefit to any of the migrant workers. In the manufacturing sector, some of the benefits exist but only in the case of a few units. It does not provide EPF to two thirds of the migrant workers and fails to provide ESI to 90% of the migrant workers. Nearly half of the workers in manufacturing do not get even one of these social security benefits. The service sector fares much better than the other two sectors. More than three fourths of the migrant workers in that sector get at least one of these benefits. About 29% get EPF and 27% ESI and a few get food subsidies in the canteen.

Hazards in Work for the Migrant Workers

Frequent media reports about accidents in construction sites invariably recount the severe injuries and sometimes loss of life of migrant workers. The study also indicated that the migrant workers are deployed in hazardous tasks which the local labor refused to undertake. For instance, plastering and plumbing in high-rise buildings are taken up by the migrant workers and not by the local workers. In fact, most of the construction companies employ only migrant workers in large numbers. Similarly, most of the industrial units in and around Chennai employ predominantly migrant workers. For the enquiries on work-related hazards among the migrant workers, the response was largely muted. Only 5% of the workers reported that there were hazards in their work. About 86% responded that there was no hazard in their work. About 5% of the workers responded that they use safety gadgets against possible hazards. Thirty-five percent did not have access to safety gadgets and 60% of workers did not respond to this question. A related question is regarding discrimination at work. The migrant workers reported that there was no discrimination based on gender or age. Less than 5% of them felt that they were discriminated against by the local labor.

Life at the Destination

Living Conditions of Migrants

Living conditions of migrants varied enormously. The fieldwork involved visits to many locations where the migrant workers were living in and around Chennai. Living conditions of the migrant workers in the construction sector was the poorest. If they worked with major construction companies, their accommodation was provided in labor camps at the work site or in some other location. Temporary sheds are erected with tin sheets on all sides with no flooring. These sheds are partitioned as cubicles and each cubicle accommodated 8 to 10 workers. No toilet facilities were provided and there were floor-level tanks fed with water that had to be used for open bathing and cooking. One of the residents in the room, by rotation, would cook in the open and they slept in the cubicle or in the open infested with mosquitoes. Compared with the living conditions of the construction workers, the living conditions of industrial and service sector workers were better but only marginally. A cramped room was the norm there as well. But all other conditions were more or less the same with the addition of a TV or a kerosene stove as they were relatively more stable at one place than the others in the construction sector.

The survey data show that about one third of the migrant workers stayed in the work site and the remaining stayed outside. The average distance between the place of residence and place of work for those who stay away from the work site was 4.64 km. The poor housing condition of the migrant worker was indicated by the fact that about 59% of the migrant workers stayed in kutcha houses and another 39% stayed in semi-pucca houses. Only less than 1% of them stayed in pucca houses. Field visits showed that the rooms or houses where the migrant workers stayed were cramped, and a common phenomenon was an average number of nine persons per small shed or room. The average rent paid for this accommodation was Rs. 2927 per month, and they had to pay an average advance of Rs. 9536 for the house. The majority of the workers have experienced a hike in the rent for their accommodation since they had moved into that place. For the kind of rent that they could pay, the accommodation was available only in tenements built on encroached land on *puramboke* or on the banks of waterways. The beautification drive by the civic authorities of Chennai and the consequent eviction of encroachments have led to a decline in the availability of housing for migrant workers and the rental

levels have gone up. Migrant workers along with the urban poor were pushed out of the city to the peripheries and they commuted to their workplace. The average distance between their place of stay and the workplace was about 5 km and also the house was mostly kutcha. A redeeming feature of their life in Chennai was that nearly 98% of workers had access to electricity. However, they were forced to pay a higher charge for the electricity like other tenants in their neighborhood. The rented room had a separate sub-meter to calculate the usage of electricity. But the house owner collected electricity charges at a much higher rate than was charged by the electricity board. This is a widespread practice in Chennai slums and in locations where the poor live. Rents are hiked every year and the rent hike is abnormal.

As far as water supply was concerned, 85% of surveyed migrant workers used public tap or municipal water. Other sources account for the rest. Access to a toilet is a major problem as compared with water. Three fourths of them do not have access to a toilet in the place of residence. They all share a toilet with the house owners and other tenants. On average, we found that about nine people stayed in one room. There could be a couple of such rooms and along with the members in the landlord's house, the access to a toilet could be severely restricted. Municipal water was the main source of drinking water. Common cooking was widely prevalent among the migrant workers and they used kerosene stoves. Kerosene was bought in the open market as they did not have access to PDS to source the subsidized fuel. Only about one fourth have reported that they have access to cable television.

Insecurity of Migrant Workers

Apart from the poor quality of housing and other amenities available to the migrant workers along with the urban poor in Chennai, the inter-state migrant workers are extremely vulnerable because of the discriminatory attitude of the state, particularly the police. The city police suspected the migrants more frequently and they were harassed for any crime in the locality. The police insisted on some indentity proof from the migrants. The treatment was also harsher. Five youths from North India, suspected in a bank robbery case in Chennai, were shot dead in an "encounter". During the period of the study, the city police commissioner ordered the residents to collect the identity particulars of all the tenants and submit them to the local police station. This was more to collect information on

the migrants than on the local population as the police had not ordered such information earlier. Since the onus of providing the information was on the house owners who rent out their houses, the rental market for houses tended to tighten up further. On another occasion, the police ordered that the details of workers camping in labor camps were to be regularly submitted to the local police station for their verification. Suspecting the migrants of crimes in the State had become the normal course for the police. The police defended its order in the court by listing various crimes supposed to have been committed by the migrants.

This kind of policing often restricted the free movement of the migrant workers. They lived in constant fear. Sometimes, the police circulated stories that owing to a slowdown in the economy, many migrant workers were temporarily unemployed and since they did not have any system to fall back on, they took to crime. And to prevent such crimes, the police needed to know them and hence the order to provide information on migrants. The impact of such stereotyping by the police will made the lives of the migrants difficult as many house owners discriminate against their migrant tenants.

There were some exceptions where the employers found accommodation for their workers. The network of workers was also of help to find a place of stay for a worker when he reached the city. Thus, housing had several layers of constraints for the migrant workers. More regular work and income may outweigh these negatives of their lives, but with suitable policies, the state should avoid treating the migrant workers as criminal suspects and provide adequate security for their safe living.

But the response of the migrant workers is somewhat puzzling. Nearly 88% of the surveyed migrant workers have responded that they did not feel harassed or threatened in Chennai. Possibly, they did not feel confident to share their fears and threats with a stranger with a questionnaire and reacted in a puzzling way, which again might be due to their own lived experience of threats from the local police!

Access to Medical Facilities

An important aspect of their living conditions in the destination is their access to medical facilities. Since they live in a metropolitan city with numerous hospitals run by the State and the local municipal bodies, along with various levels of private health services, availability should not be a problem. It is, however, the question of access that haunts these migrants.

We find that a little over half (51%) of them access the private medical practitioners for their ailments. There are many medical practioners (formally trained and educated) who run clinics in the poorer neighborhoods and charge a nominal consulting fee. Such doctors do not embark on a series of tests and a process of several rounds of consultations for an ailment as we find among the doctors in the middle class neighborhoods and in private nursing homes and polyclinics. They prescribe cheap medicines and treat the patient in one consultation as they know that the patient may not return in most of the cases. The urban poor access such doctors and the migrant workers may be accessing such doctors for their ailments. They may not consult doctors for all ailments. Sometimes, they may go to the local medical shop and narrate the ailment to the person in the shop. Medicine is sold over the counter and there is no fee for that consultation. Nearly 41% of the migrant workers get treated through the medicines prescribed and sold by the medical shops. Very few access the government and corporation hospitals (about 3.5%). The choice of medical shops and private doctors over the government hospitals could be due to convenience in terms of time and space. One has to travel a long distance to access the government hospitals and also during the day time and in the process lose a day's wage. On the other hand, the private doctor is available in the evening and often late into the night and the medical shops are ubiquitous and all around the neighborhood. Seeking the help of a private doctor and getting medicine over the counter in medical shops need not exclude one another. Treatment for any ailment may start with the medical shop, and if the ailment continues, the private doctor may be consulted.

Accessing Other Benefits

Apart from these channels of medical help, which often involve out-of-pocket expenses, there are avenues like payment through insurance. Formal sector workers in organized industries get their insurance coverage paid by their employers. However, we have not found any one migrant worker with insurance coverage. Tamil Nadu also has about two dozen welfare boards for various workers in the unorganized sector. But none of them functions satisfactorily although some of them like the building and construction workers board have resources of several hundred crores of rupees. While they keep collecting various types of cess, they have erected very tall entry barriers. One major issue is to identify the claimant. Authentication power is endowed to the state revenue department. The

existing system put in place by the revenue department to authenticate a claimant can at best vouch a worker's identity if he happens to be from the same district. The identity of claimants from other districts cannot be authenticated and in this process the eligibility to benefit from the welfare boards is severely restricted. If the inter-district migrant workers are unable to access the welfare board funds, how can the inter-state migrant workers access it? The government, even after repeated representations, has not altered the procedure of authentication and thereby seriously impairs the just claims of the unorganized sector workers. Trade unions, which safeguard the rights of workers, are virtually unknown to the migrant workers. Sometimes, non-governmental organizations (NGOs) take up the role of trade unions. Unfortunately, the sample migrant workers studied appear to remain outside the focus of several NGOs.

Remittances and Their Impact

Remittances of the Migrant Workers

Most of the migrant workers receive their wages on a monthly basis although all of them are employed on a casual basis, not even with a formal agreement. They keep working for months with the same employer, and most of them work for more than 8 hours a day. They live in kutcha houses with several others, get rice in the market (PDS rice and kerosene) at a relatively cheaper rate, and cook collectively. They work for 6 days in a week and get about Rs. 7000 per month as wage income. Most of them save and send home a substantial proportion of their earnings.

On average, each migrant worker sends home Rs. 4065 every month. Although about 35% of the surveyed workers were not willing to answer this question, the estimates are based on the responses of the rest of the workers. More than half of them remit Rs. 2001 to 5000 per month. Construction workers remit the lowest amount of Rs. 3759 per month, whereas service sector workers remit Rs. 4177 per month. ST workers remit the highest of Rs. 4176 per month, whereas SC workers remit the lowest amount of Rs. 3974 per month.

Although about 17% of workers choose not to respond to the question, the majority of workers remit money every month. About 15% of the workers remit the amount once in two or three months. Another 15% of the workers either take the money when they go home or send it through

persons who may go to his place or ask the contractor to give the money home when they go. There is not much of a difference in the frequency of remittance across sectors or caste groups.

Bank transfer is the widely adopted mode of remittance (71%). Sending cash through money orders, friends and relatives appears to be a thing of the past. At the time of the study, in 2013, "smart phone"–based transfer of funds was not yet popular among the migrant workers of Chennai. Thus, the workers have adopted the cheapest and safest method of cash transfer from the destination to the origin. This fact goes to suggest that if suitable institutions and structures are introduced, the workers are willing to use them.

Similarly, withdrawal at the origin is through the use of ATM cards in 59% of the cases. The remaining use different methods like operating through cheques, use friends and relatives to withdraw the money and so on.

Purpose for Which the Remittances are Used at Origin

About 78% of the workers responded that their family members use the remitted money for consumption (Table 13.10). About 19% have used them for health care, and 11% for education. Repayment of debt and repairing assets are each reported by 8% of respondents.

Thus, despite an average remittance of Rs. 4000 every month, basic consumption needs appear to be the primary charge. And along with health, education, and repayment of debt, there does not appear to be anything left to save or acquire any assets.

However, the dismal picture that most people spend their remittances on consumption needs is not the complete picture. While the families spend money on food, health care, and education, there are many households who have saved money and have deposits in the bank. When we look into the impacts of migration, we find that about 30% of the workers have said that owing to migration, they have benefitted by having savings in the bank. Nearly 15% of the workers have repaired their houses (Table 13.10). Marriage is another major expenditure that was met from remittances.

This inference gets reinforced when we analyze the perceptions of the surveyed workers about the improvements in their life since their migration to Chennai. More than half of them have reported that they could extend increased support to their families. About one fifth felt that their quantum of income had increased and was more regular (Table 13.11).

Table 13.10 Purpose for which remittances are used at origin

Purpose of expenditure	*Number of workers*	*Percentage*
Consumption	244	77.5
Education	33	10.5
Health care	60	19.0
Repair of assets	24	7.6
Purchase of assets and durables	10	2.9
Purchase of other assets		
Payment of debt	24	7.6
Others	2	0.6
NA	60	19.0
Total	456 (3/5)[a]	

Source: Survey data

[a]Remittances are used for more than one purpose by the same household. Hence, the total frequency of respondents (456) exceeds the actual number of migrants and the total percentage of responses exceeds 100

Table 13.11 Migrants and perception of the impact of migration

Nature of improvement	*Number of workers*	*Percentage*
Increased regular of income	62	19.7
Access to adequate food	59	18.7
Increased support to family and so on	225	71.4
Improved credit worthiness	63	20.0
No improvement	9	2.9
Total	418	[a]
	315[a]	

Source: Survey data

[a]Multiple responses, which add up to more than the number of respondents

Another 19% felt that they and their families at home had adequate food since their migration. About 20% opined that their credit worthiness had increased. Only very few (3%) felt that there was no improvement in their life since migration.

Links with Home

Since most of the migrant workers are single, they miss their "home" and long to keep constant contact with their families. Apart from monthly or periodic remittances, they communicate with their families through mobile

phones. Almost all of them have a handset and get a local connection by providing a letter from the firm where they work. Many times, the contractor who brings them to Chennai gets the mobile connection. About 75% communicate with home through their mobile and another 10% through the mobiles of their friends. Other modes like public telephone booths have fallen out of grace. Migrant workers in the construction sector seem to share the mobiles more than the workers in other sectors. Apart from communicating with home through mobiles, migrant workers visit their home. Half of them visit their home once a year, and one fourth of them visit their home twice a year. They do get leave for some visits at least once a year. In the case of seasonal workers in the construction sector, the break may extend to more than three months. Many of them would combine the festival time with their leave period.

Concluding Observations

Inter-state temporary migrant workers seem to travel in an invisible carriage way to Chennai. The carriage way has been built over time by the friends and relatives of the migrant workers that carry more and more streams of migrant workers to Chennai. The most prominent carriage way evident from our survey is the one that originates in the North East and runs through the Eastern states to reach Chennai. This invisible route is traversed predominantly by the OBCs and SCs. The majority of them are landless. However, a sizable section hail from marginal-small farmer households and could mobilize, mostly on their own, the required financial resources to migrate. Almost all of them are young, and a large number of them are not married. They are not educated much, nor are they skilled to readily fit into the requirements in the destination, but most of them end up picking up some skill on the job. They leave behind their families and keep remitting most of their wage earnings and visit "home" at least once in a year. Since the carriage way is built by the family and friends network, the eventual contractual arrangement is unencumbered. Thus, one can conclude that these migrations are not driven by distress and despair.

However, once they are in the destination, their life remains "temporary" forever. With their frugal belongings, they stay in temporary accommodations, sharing them with many fellow migrant workers. Everything regarding their housing is dismal but induces a hope for better. The nature

of work contract is oral though with a pretension of permanency by paying the wages once in a month. However, wages are calculated on a daily basis. Very few get an annual bonus and long-term benefits like PF and ESI. Continuous work with the same employer for years does not endow any permanency but little wage hikes in some cases. Their sense of permanency is associated with their family, house, and life in the place of origin. They live in a dual world. The world in the destination is temporary but merely as a source of some regular earning which is uncertain back home, and the world in the origin is permanent only to be retained by visiting it for a short time. Thus, they have stretched-out life worlds.

The temporary life in the destination endows an inferiorized identity on the migrant. They are suspected and discriminated in the destination if not as much by the fellow workers then by the state machinery. As they enter the destination, they fall into the trappings of the urban poor but with an inferior identity. In that sense, it is a double burden. Apart from enduring the temporary life, the migrant survives through this double discrimination. They are forced to live without basic amenities and in the poorest living environment. They also have an incomplete citizenship. They are out of the social welfare net provided to the urban poor in the destination like entitlements for PDS. They can benefit only indirectly through the grey market spilling over from universal PDS in Chennai.

Thus, there is a moral obligation for the state to bestow complete citizenship to the migrants by instituting appropriate policies. As of now, migration and problems of temporary migrants have hardly any specific state policies. The state should ensure decent living conditions for the migrant workers, a minimum wage for them, non-wage benefits, and health care and extend all the welfare measures to them as well. The minimum that the state could do is to constitute a separate welfare board for the migrant workers and collect a special cess from all the employers to finance its activities. The state should realize that the migrant workers are the backbones of the booming economy of the state. Instead of only policing them, the state should integrate them into their governance by evolving appropriate inclusive policies.

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CHAPTER 14

The Uncivil and De-institutionalizing Labor Relations of Accumulation Through Disuse: The Case of the Brick Kiln Industry in Telangana

Tathagata Sengupta and G. Vijay

Introduction

The rural-urban developmental interactions remain to be an area where much-desired research needs to be done. While the debate on migration of labor per se has a long history of theorization, there is an increasing need felt to understand labor mobility in conjuncture with several other unfolding processes set off by the different nature of development process witnessed in the currently developing countries. To make sense of the nature of labor mobility as part of the understanding of development as an accumulation process and to understand the nature of the employment of labor, it is important to go beyond the experience of labor alone. The experience of labor needs to be understood in combination with the

T. Sengupta (✉)
School of Mathematics, University of Hyderabad, Hyderabad, India

G. Vijay
School of Economics, University of Hyderabad, Hyderabad, India

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composite experience constituted by production as a larger social process (Stiglitz et al. 2011). This chapter precisely attempts to do this by taking brick kilns located in the Ranga Reddy district of Telangana as the site for research.

The Present Study

This chapter attempts to seek answers to the following questions:

1. What is the nature of labor relations as seen through the living and working conditions of the workers in the brick kilns?
2. What are the emerging rural-urban developmental relations as seen from the nature of use of factors such as labor, land, capital, and other natural and social, community resources?
3. What is the nature of institutions that have emerged in facilitating the process?
4. What is the emergent nature of this development mode, and what are its developmental consequences, particularly for workers?

Research Site and Sample Design

The study is based on a sample survey of households working in brick kilns in two villages, namely Maheshwaram and Dundigal in the Ranga Reddy district of Telangana; from these two villages, ten brick kilns are selected. Each brick kiln consists of workers working in four major categories of labor processes: (i) wetbrick block making, (ii) loading and unloading, (iii) ring work, and (iv) furnace. From the ten brick kilns, a total sample of 82 households is drawn (Table 14.1), representing workers engaged in all four categories of labor activities. The brick kilns have a single proprietary mode of ownership, and each unit employs almost 70–80 workers. These 82 sample households consist of 254 members who are interviewed for the study.

In addition to this, six farmers, including large, medium, small, and marginal farmers who have given their lands on various lease agreements to the brick kilns, have been interviewed by using a structured questionnaire. Some lease agreements permit exclusively mud excavation up to 2–3 cubic feet, whereas other lease agreements permit only location of brick kilns but not mud excavation and yet others include both. There have also been unstructured discussions with two brick kiln owners. One of these owners is from the local area, and another owner is a migrant from the Prakasam district. The study also involved certain experimental methods

Table 14.1 Sample of brick kilns and number of households studied

Serial number	*Name of the brick kiln owner*	*Number of sample households*	*Percentage*
1	Babu Rao	10	12
2	Bikshapathi	10	12
3	D. Raju	6	7
4	G. Madhav	10	12
5	Mallikarjuna	11	13
6	P. Malyadri	5	6
7	Pratap Reddy	7	9
8	Ramayya	9	11
9	Ramesh	8	10
10	Sivayya	6	7
	Total	82	100

Source: Primary household level survey in 2014

such as excavation and weighing of mud in the brick kiln, adopted to gather information relevant for measurement and conversion of the total quantity of mud used to produce bricks and the total bricks measured in terms of number per square feet, used for construction of buildings measured in millions of square feet. The study also uses secondary data on certain aspects such as those pertaining to the Crude Death Rate from the Annual Health Survey of Odisha 2011–12.

The Nature of Labor Relations

Making Sense of the Circulating Society of Brick Kiln Labor

The stream of migration to the brick kilns in the selected sites is from Odisha to Telangana. The social composition of the workers shows that the largest segment of these workers (58%) belong to the Scheduled Castes, followed by 22% and 19% of Other Backward Classes (OBCs) and Scheduled Tribes, respectively. With reference to gender composition, almost an equal proportion of male (52%) and female (48%) workers constitute this employment. The composition of the workers with reference to the age groups suggests that predominantly the workers are between 15 and 41 years of age. There is a perceptible decline in the proportion of workers participating in the production of bricks beyond 41 years of age. When viewed from the perspective of formal education levels, the largest

segment of the workers have had a middle school education (37% studied up to sixth to eighth class). This is followed by a significantly large segment of workers who have never been to school (33%). Yet another sizable proportion of workers have had only primary-level schooling (21%). A small section of the workers have also done their matriculation (9%). Given the nature of employment in the brick kilns, the last segment certainly comes as a surprise. This not only suggests significant underemployment but also could go to show how difficult it is for a section of the society to access better employment opportunities despite having educational qualifications.

The Rural-Urban Mobility Relations of Production

There is a peculiarity in the interconnectedness of the nature of the agricultural activity of the marginal, small, and medium farmers and the decisions pertaining to the timing of migration, which in turn affects the advance amounts received by the brick kiln migrant worker households. In our interviews with the households migrating as brick kiln workers from the Balangir district of Odisha, we found that different households migrate at different points in time. There are some households that migrate in November, there are other households that migrate in December and yet others that migrate in January. Typically, the season of brick production extends from November to May. The reasons why the timing of migration varies are numerous, emanating from both the supply as well as the demand side of this employment. The reasons on the supply side pertain to the pressing need of certain households to find alternative employment in as much as they need to repay outstanding loans. The probability that this section is constituted by landless households is larger as against those households that are also cultivating on their own lands. In general, irrespective of the timing of migration, households with a larger number of workers get, on average, a higher advance amount than a household with a smaller number of workers. This has something to do with the economies derived from cooperation between the same household members apart from the more important reason which is the reduction in risk for the owner of workers running away from the site of production in the middle of the contract period, having borrowed the advance. It is much more difficult for large households to escape than it is for lone individuals. Therefore, there is also a control dimension associated with the structure of advance payments (Table 14.2).

Table 14.2 The per person advance amounts paid according to time of migration

Time of migration	*Calculation of per person advance amounts paid*
November	Median advance paid to the household = Rs. 36,750 Average size of the household = 3 persons Per person advance paid = Rs. 12,250
December	Median advance paid to the household = Rs. 36,458 Average size of the household = 3.5 Per person advance paid = Rs. 10,416
January	Median advance paid to the household = Rs. 45,000 Average size of the household = 3 Per person advance paid = Rs. 15,000

Source: Primary household level survey of 2014

From the demand side, the workers recruited in November are used to set up the brick kiln itself to start the production of bricks eventually. And the sooner the production begins, the larger the number of bricks produced per person in the season. Thus, since those who get recruited in November are likely to produce more bricks assuming that they stay on until May, they produce more bricks and therefore get paid a higher advance. The *sardar* (contractor) who pays the higher advance on behalf of the *seth* (Owner) does so because the *seth* is confident of recovering the higher monetary value in terms of a higher quantity of bricks produced. However, typically, the number of persons willing to leave the village at this point in time is relatively low given that certain agricultural activities continue at this point in time back in Odisha. It is because of the complex interplay of these factors that there is a significant difference in the per person average advance amounts received across different households. It is as a consequence that the median advance amount received by a household becomes a better representative and the advance amount paid per person has been taken on the basis of the average size of the household in the season. What is found is a structure of advance payments which for reasons already mentioned are high in November; in December, however, when large number of workers are willing to migrate, the per person median advance amount decreases by about 15%. And again in January

more workers are recruited either because of expanding construction in the realty market causing a spurt in demand for bricks or because workers desert the kiln and run away and contractors need replacements to be able to carry on with the production activity, since investments into purchasing or excavating mud and other inputs have already been made. Recruitments in such instances are to avoid or reduce the loss. Under these circumstances, therefore, this recruitment is demand-driven, and as a consequence, the per person median advance amounts increase by about 44%. Therefore, the crucial factor to get the highest advance amount is the *holding capacity* of a worker. However, in November, there is a conflict between the alternatives of the agricultural activity carried on by several landowning households who are usually cultivating cotton, big rice, or small rice. These households need to stay on to cultivate and harvest these crops after which they also migrate as labor to work in the brick kilns. As rural production systems become more unviable, lesser is the holding capacity of the labor and lesser therefore is the per person advance amounts they can bargain for. All the respondents without exception have suggested that the timing of their mobility affects the quality of their employment, including the amount of advance payments they receive. There is, however, a pressure acting on the households to migrate, leaving the opportunities in agricultural production because of the outstanding loans they need to repay. Moneylenders lend credit at 10% per month interest for a maximum of six months, beyond which the rate of interest compounds with principal plus interest being treated as the principal amount. And borrowings are made by households for agriculture, health-related contingencies, and social obligations as well as for personal consumption requirements. It is therefore that while 96% of the respondents have stated that never did a year pass in their entire lifetime when they were free of debt, 99% of the respondents have stated that the outstanding loans affect their bargaining power with *sardars* adversely.

Rethinking Networks

The recruitment of labor to the brick kilns operates not as a market but as a network. The analysis of networks and their role built on the basis of mainstream behavioral assumptions reduces networks to mere functionalities. The networks which basically suggest a limited field of transactions are seen as operating as intermittent mechanisms under conditions where imperfect markets are seen to be developing toward becoming perfectly

competitive markets. This process of development is gauged on the basis of patterning the networks in turn to determine whether the network is highly personalized or whether it is becoming impersonal. The process of the network formation and network influence as it becomes more impersonal is seen as graduating out of a closed or limited transaction space toward an open universe of transactions driven by rational responses to economic or price signals rather than by subjective non-economic considerations (Mathew O Jackson 2010; Arrow 1998).

Networks, however, are not mere functionalities in the realm of economic transactions. Networks are also structures of domination and control. Networks do not transmit information but could also transmit misinformation toward this end. When we interviewed some of the important officials in the Odisha administration and pointed out that chronic indebtedness seems to be a problem that needs attention, the official said that the reason why banks don't seem to be lending money to certain sections like the brick kiln workers is that they tend to default on the loans. Anand Meher (2015), however, points out, on the basis of a primary household level survey, that all the households that were involved in defaulting on the loans borrowed from cooperative banks in Balangir, belonged to rich landlords or well-to-do sections. There was nobody enlisted as a defaulter who belonged to the section of the society that migrates as a brick kiln worker. That an official in the district administration holds such a view of the brick kiln workers speaks to the systematic misinformation that is fed to agents and agencies whose role it is to intervene in ways that social and economic relations are democratized. That the citadels of power into which brick kiln workers hardly find entry have however come under the influence of the powerful vested interests who then feed it with misinformation which effectively disempowers an already marginalized or excluded group is a perverse use of networks.

One should also understand that the nature of economic relations in themselves could be entrenched into modes of accumulation which require networks. Take for instance the kind of responses given to questions pertaining to information flows through networks. Empirically it is found that a larger proportion of workers have secured employment in the brick kilns through information provided to them by *sardars* or other workers (53%) as against (47%) those who got employed because of family, relatives, friends, and neighborhood (47%). However, when asked about which particular source of information they would trust more and prefer in case information came from multiple sources, all of them without

exception said it was family. Furthermore, if we compare the family as a network institution versus other network institutions such as neighbors or friends, we clearly see that whereas the social regulations and sanctions imposed are much more severe in the case of the wife in the family, this is not quite the case with other forms of networks. Quite clearly, personalization is linked to control with reference to obligations imposed by social norms and the scope for exercise of physical violence by the husband against the wife, all of which then extend into a situation where women, in addition to producing bricks, have to perform two hours of household-level cooking and cleaning activity, the total period of work in a day extending to 12–17 hours. Quite clearly, the intra-household control mechanisms cannot be explained away by simplistic time allocation models based on specialized gendered roles. This relationship as part of a form of network therefore has to be seen as a dimension of a coercive relation necessitated and reproduced by a coercive development mode wherein a household is caught up in a highly impoverished condition struggling to produce its subsistence value. Violence, fear, obedience, and subordination are as much made part of the family in its role as a unit of production and reproduction attempting to circumvent its crisis generated by development. This is perhaps one of the most decentralized levels of representing the shifting and incidence of costs of this development mode brought about by social mechanisms.

The Conditions of Work and Life in Brick Kilns

The average working hours in the kilns, as observed from the sample survey, is 15 hours a day without any payment for overtime work. On top of this, in 94% of the worker households, the women workers have to perform all domestic work, which takes 2 hours every day on average. While in many cases (as referred to in another section of this chapter) women are married into a family primarily to enable the couple to migrate for brick-making work and in other cases the women do not have a choice not to participate in this work, this added task of domestic labor at the worksite leads to threefold exploitation of women within the worker household.

The working conditions are extremely unsafe. Workers are forced to work with no protective gear. The only leave they are allowed is one day per week; other than that, they are not entitled to any holidays, except Holi. They have no benefits of Provident Fund (PF) or Employees' State Insurance (ESI) or any other social security arrangements. According to

our sample survey, every worker faces 14 minor accidents per season on average. One of the more common but more dangerous forms of accidents is electrocution. Every season, some people lose their lives because of electrocution. This is known to happen because the electricity connection at most of the kilns is illegal and therefore no proper safety precautions are taken with respect to electric lines. The reason for this can be traced to the fact that most of the time the lease agreements between the brick kiln owner and the farmer leasing out his agricultural land for the industry do not follow proper official process. Thus, most of these transactions happen outside the purview of law, without proper permissions and regulations.

The worker families are put up in small homesteads of 10 by 10 feet, mostly with tin roofs. Although the homesteads are provided with electricity connection, there is no facility for lavatories or bathrooms. The women workers undergo regular sexual harassment, mostly from the kiln management, because of the fact that there is no safe bathroom facility for them. Although most kilns have a borewell connection, which supplies drinking water to the workers, they have to depend on common wells and tanks for other water needs. These tanks are already severely polluted from all kinds of activities and particularly from the pollutants from the kilns. Using this water regularly leads to serious physical problems, such as skin diseases of workers. The main source of fuel used by the workers is firewood, which according to the local villagers is leading to rapid depletion of greenery in the area. The workers get to spend no social time with family, friends, and community at the worksite. There is no communication or interaction between workers in neighboring kilns. The only real social time available to the workers is during the weekly market. But even at the market place, the workers are kept under the strict surveillance of the kiln management.

Although most of the workers, the way they are chosen in the first place, are able-bodied and healthy in order for them to pull off the hard labor involved, they exhaust themselves physically and irrevocably by the end of the season. This coincides with the high mortality rates of people in Western Odisha. Also, illnesses, lung infections, throat infections, upper respiratory problems, eye problems, and body pains are common. And there is a serious lack of proper medical assistance every time a worker falls sick. In the case of sickness, it is mostly the family of the worker which has to take charge of care, without even nominal assistance from the kiln management. Twenty-eight percent of the children at worksites are reported to be sick.

The practice of putting workers up in the worksite itself and the phenomenon of employing entire family members are the main tools to ensure effective and efficient exploitation of the workers through intimidation, holding them hostage, subjecting them to surveillance and the threat of violence.

The Morbid Circulation Between Debt and Advance

What needs to be recognized is that underlying these abominable conditions of work and life is an unending saga of chronic indebtedness and borrowing of advances. About 96% of the workers have always been in debt. This is also partly because with the advance amounts, workers clear their debts. However, after having lived in the place of destination and incurred the expenditures while here, toward the end of the typical six months of activity extending up to May, 37% of the worker households return home with a negative balance in their account, the implication being that they would have to borrow. Another 21% of the worker households have less than ten thousand rupees left as savings or remittances, and another 15% have less than fifteen thousand rupees as savings or remittances, and yet other 7% are left with less than twenty five thousand. And when distributed among the average household size of three persons, the implication is that close to 43% of the worker households are left approximately with Rs. 3000–8000 each to return to their places of origin. When spread across the rest of the six months, each individual worker leaving aside their dependents, is left with Rs. 500–1400 (approximately) per month. Quite clearly, 80% of this labor is returning with highly inadequate earnings for ordinary consumption requirements; to have savings that can go as investments to improve their production systems back in the place of origin is remote. It is this condition of perpetual distress- and indebtedness-based subsistence that drives them into accepting the strenuous and exerting activity levels of 14–17 hours of work. It is pertinent to note here that, of the total population of 16,48,997 in Balangir, close to 7,20,000 constitute its workforce (Census 2011), and of these, an estimated 2,78,641 workers migrate to Andhra Pradesh and Telangana states. Since the proportion of the workers working in the brick kilns is considerably high and 54% of these workers work for 16–18 hours, there is every reason to believe that the crude death rate figures, which happen to be the highest for Balangir among all the districts of Odisha, are a consequence of the morbidity and bodily depletion that these workers suffer during the course of this tenuous employment. The “right against right” in determining the limits to the working day being clearly absent taking its toll in terms of the

life span, this mode of employment could hardly be characterized as ordinary contract. These statistics go to represent the nature of the economy and the development process these workers have gotten entrenched into. To understand what explains this mode of employment entailing bodily depletion, one has to understand the structural interconnections of this morbid circulation between debt and advance payments (Table 14.3).

Table 14.3 Loans, advances taken, expenditure, and income of households (in Rs.)

serial number	*Average advance (1)*	*Average loans (2)*	*Income (3)*	*Total 6 months expenditure (4)*	*Income – Total expenditure (3–4)*
1.	62500	12500	50000	44664	5336
2.	25000		25000	34244	−9244
3.	61666	15000	46666	40165	6501
4.	77500	15000	62500	49404	13096
5.	57500	20000	37500	45384	−7884
6.	58333		58333	44644	13689
7.	25000		25000	24524	476
8.	36666	20000	16666	20695	−4028
9.	25666		25666	28064	−2397
10.	27500	25000	2500	20332	−17832
11.	45000	10000	35000	18138	16862
12.	40000		40000	21952	18048
13.	53750	10000	43750	31944	11806
14.	40666	7500	33166	25381	7785
15.	36500	25000	11500	23238	−11738
16.	26000		26000	18655	7345
17.	26000		26000	19124	6876
18.	27000	30000	−3000	18581	−21581
19.	12500	25000	−12500	5583	−18083
20.	37500	35000	2500	22561	−20061
21.	55000	30000	25000	33604	−8604
22.	33250		33250	25184	8066
23.	52000		52000	20124	31876
24.	46000	20000	26000	31264	−5264
25.	29000		29000	15772	13228
26.	24000	20000	4000	20552	−16552
27.	70000		70000	23921	46079
28.	55000		55000	25856	29144
29.	50000		50000	27350	22650
30.	50000		50000	25361	24639
31.	29500		29500	15661	13839
32.	29000		29000	19701	9299
33.	29000		29000	16065	12935

(*continued*)

Table 14.3 (continued)

serial number	*Average advance (1)*	*Average loans (2)*	*Income (3)*	*Total 6 months expenditure (4)*	*Income – Total expenditure (3–4)*
34.	70000		70000	27821	42179
35.	25000		25000	23781	1219
36.	14000		14000	10003	3997
37.	33333		33333	24975	8358
38.	36250		36250	39870	−3620
39.	35000		35000	27644	7356
40.	58000		58000	69799	−11799
41.	31666		31666	34844	−3177
42.	52500		52500	31484	21016
43.	9750	15000	−5250	9540	−14790
44.	26500		26500	18595	7905
45.	15250	12500	2750	20635	−17885
46.	26666	20000	6666	15195	−8528
47.	15000		15000	7290	7710
48.	60000		60000	25190	34810
49.	65000		65000	95866	−30866
50.	65000		65000	50080	14920
51.	15000		15000	8442	6558
52.	29500		29500	15673	13827
53.	60000	15000	45000	45384	−384
54.	45000	10000	35000	34124	876
55.	67500	30000	37500	56424	−18924
56.	50000	15000	35000	37084	−2084
57.	30000	10000	20000	36172	−16172
58.	30000		30000	23395	6605
59.	45000	15000	30000	52644	−22644
60.	45000	25000	20000	36945	−16945
61.	47500	40000	7500	43405	−35905
62.	50000		50000	40204	9796
63.	500000		500000	43285	456715
64.	30000		30000	18575	11425
65.	19000	20000	−1000	21901	−22901
66.	10233		10233	21795	−11561
67.	11333		11333	12105	−771
68.	37000	5000	32000	36610	−4610
69.	46750		46750	32110	14640
70.	58333	5000	53333	48555	4778
71.	40000		40000	31430	8570
72.	47000		47000	28180	18820
73.	27500		27500	17405	10095
74.	50000		50000	26581	23419

(*continued*)

Table 14.3 (continued)

serial number	*Average advance (1)*	*Average loans (2)*	*Income (3)*	*Total 6 months expenditure (4)*	*Income – Total expenditure (3–4)*
75.	45000		45000	25261	19739
76.	65000		65000	25381	39619
77.	65000		65000	27021	37979
78.	30666		30666	19918	10748
79.	23333		23333	18398	4935
80.	30000		30000	17155	12845
81.			17481	17481	0
82.	26000		26000	18661	7339

Source: Primary household level survey

Monopoly, Oligarchy, and Multiple Controls

It is pertinent to observe that 36% of the workers know one or two moneylenders from whom they could borrow loans. The maximum number of moneylenders any worker has ever known is four. About 59% of the workers have actually borrowed from only one moneylender. Yet another 32% of the workers have borrowed from two moneylenders more than once. Thus, 91% of the workers are actually dependent on two or three moneylenders. The recruitment to the brick kiln work does not augur any better. About 47% of the workers have been recruited by one or two *sardars*; the maximum number of *sardars* that recruit from the village from where the workers migrate is four. Furthermore, 98% of the workers have said that big *sardars* collude and distribute the labor sourcing villages for recruitment among themselves. It is also true that given the cruelty workers sometimes have to face, physical and sexual abuse being an additional risk always accompanying any new employment, workers generally tend to prefer a known devil to the unknown and therefore tend to approach the same *sardar* over the years. The crucial dimension, however, is that the numbers of moneylenders and recruiting agents (the *sardars*) is limited, and both these markets, were effectively, either monopolies or oligopolies. There is active interaction between moneylenders and recruiting agents. This collaboration also acts as security against default for both the agents giving money informally. But effectively it also opens up the possibility for knowing the vulnerability of the workers with reference to the information pertaining to the outstanding debt which hampers the workers' bargaining power. Therefore, there is also a tacit agreement that large numbers of workers are not recruited during the active agricultural season since a number of these

moneylenders are also landlords holding large tracts of land. The effect of this oligarchy on the employment is very evident in the fact that 95% of workers did not have an opportunity to compare advance amounts and 42% of workers either do not have an opportunity to know about the working conditions at the place of destination or know it only through the *sardars*. And 61% of workers have actually had no opportunity to bargain on advances, living expense allowances, or wage rates. They accepted whatever was offered to them by the *sardars*. This explains how this chain migration stream has reproduced itself systematically for over two and half decades now. This morbid circulation involving bodily depletion of workers is almost an all-encompassing phenomenon. The workers, in the course of their labor activity in the brick kilns, are made to do to the agricultural lands and common property assets of the rural economy exactly what they are forced to do to their bodies.

Morbidity Meets Degradation: The Nature of Land Relations to the Production System

Farmers and the Lease Contracts

Of the six farmers who have leased out their land to brick kilns, all of them have been indebted. One of the farmers became indebted because he had attempted to dig a borewell (11 times) for irrigating his agriculture but they failed, leaving him with a big debt. Each attempt cost him Rs. 50,000. There was another farmer who spent a huge sum on getting treatment for his five-year-old child, who was struck with pneumonia, and although the household spent close to 80 lakh rupees, the child did not survive. In the course of this expenditure, the farmer lost everything. Yet another farmer spent money to perform the wedding of his daughter, but eventually the husband deserted her and she became mentally deranged, and later the household incurred a large expenditure on treatment for her. This farmer also happened to be an absentee landlord. It is such expenditures that have pushed the farmers, albeit reluctantly, into accepting to lease their lands out to the brick kilns. The lease contracts are of different types; one lease contract permits the brick kilns to be located on the agricultural land and to excavate the land (usually up to 3 cubic feet of land); a second type of lease could be leasing out the land for only setting up the brick kiln but not permitting mud in the agricultural land to be excavated; a third type of leasing out could consist of only leasing out for the purpose of excavation of the topsoil but does not permitting setting up of the brick kiln.

Bricks, Lands, and Ponds

A minimum viable size to start a brick kiln is five acres of land. Excavation of mud began in Dundigal around 1978–79. However, it was not as extensive at that point in time. It was around the late eighties and early nineties that mud excavation became extensive. By 1999, the brick kilns started to operate by buying mud from outside the village. It was also during this period that the village lake started to dry up. The farmers point out that the village tanks were getting recharged with rainwater which flowed into the lake from various streams that channeled the rainwater from forest lands. However, over the years, these forest lands have all been encroached by different sections of the politically well-connected elites and as a consequence the village water bodies started to deplete. Almost simultaneously with the depletion of the village water bodies there was a transition already being witnessed wherein, by late eighties, lands which were used to cultivate traditional food crops like Jowar, Bajra, Ragi, and Maize started to shift toward paddy cultivation which, unlike the traditional crops, was water-intensive. This brought, in place of village water bodies, the increased use of borewells. The massive expansion in borewell use led to a situation wherein today the ground water table has sunk to a point where borewells as deep as 500–600 feet also fail to get water. This has made agriculture increasingly expensive, risky, and often unviable, thus causing the land to shift away from agriculture use to use by brick kilns. In Dundigal village, the entire agricultural land which is not under the *auicut* (receiving village lake-based canal irrigation) extends up to 300 acres of land. All three hundred acres of land have been excavated up to a depth of 2.5–3 cubic feet. The auicut land, it is argued, has gravel which makes this mud unusable. However, over the years, the construction sector seems to have undergone a change and the preference for lightweight bricks has increased. To produce lightweight bricks, clay instead of red mud is used. Clay in turn is excavated from village lakes. Whereas in 1975–76 an acre of land's mud was excavated at a throw-away price of Rs. 4000–5000, today excavation of an acre of land up to 2.5–3 cubic feet in depth fetches the farmer close to Rs. 2,50,000. With the booming construction sector in the city of Hyderabad, the demand for bricks started to go up and with it the number of brick kilns in the rural areas around Hyderabad city also increased several fold. As the borewells started to experience a drop in the quantum of water, this was inadequate for agriculture but was just sufficient for brick kilns. Agricultural lands with borewells thus became the

preferred sites for setting up brick kilns. The current composition of the making of bricks is constituted by the following proportions: for every 100 tons of mud (recently being drawn from village lakes instead of agricultural lands and this quantity is equal to 20 tractor loads of clay/mud), 20 tons of fly ash, National Thermal Power Corporation (NTPC) ash, and red mud are combined. A crude estimation by the brick kiln owners is that with an acre of land assuming that all the mud upto 2.5 cubic feet depth is usable for making bricks, about 20 lakh bricks can be produced.

2.1 *The story of increasing number of brick kilns following expanding urban construction and its impact on environment is a story of "Expanding Realty and depleting Reality" (see Annexure I) and this story goes along with the inclusive abuse and disuse of public institutions (see Annexure II).*

Annexure I

Estimated supply of Residential real estate in Hyderabad for 2014-2015: 47 million sqft (CRB Customized Research Bulletin, CRISIL Research) = 1079 acres of land
Number of bricks required per sqft built-up area: 8
Total number of bricks required for 2014-2015: 376000000
Proportionate amounts of raw materials required:
100 tons of village tanks mud + 20 tons of fly ash, NTPC ash and red mud. Thus, 5/6th of the weight of bricks comes from village tank mud.
Weight of 1 (wet) brick: 2 kgs
Hence, total weight of mud required for 376000000 bricks: 626666666.666666667 kg
1 cu ft of mud weighs 25 kgs
Thus, total volume of mud= 25066666.666666667 cu ft
Average depth of pits dug: 2.5 ft
Thus, total area of land required just for mud: 10026666.666666667 sq ft = 230 acres

This is the total area of agricultural land required solely for supplying mud for brick making to cater to the new constructions coming up in Hyderabad this year. We haven't factored in the area of agricultural land that is being used to set up the brick kiln itself. We also haven't factored in agricultural lands that are being rendered unsuitable for agriculture because of pollution caused to the land and water sources due to the brick industry. Neither have we factored in loss of agriculture due to rapid depletion of water table in catering to such urban centers. We have of course assumed that the residential projects all use mud bricks, and the commercial projects use cement/lightweight bricks, which constitute a different industry. This assumption is bound to be inaccurate, but this is just to give ourselves some idea of the scale of depletion of the agricultural topsoil. **The ratio of agricultural land used to area under construction is 1:4.7.** Thus, for constructing every 5 sqft of residential area, 1 sqft of agricultural land is being lost permanently/semi-permanently. Thus, agricultural resources are being diverted into the highly speculative real estate economy at an alarming rate. To give an idea of the speculative nature of the industry, buyers belonging to other states that make up an estimated 70% of the demand base for residential real estate. The absorption numbers in 2014 have plummeted over 27% Y-o-Y (OIndia Real Estate Outlook, Residential and Office, Jan to June 2014 - Frank Knight).

Annexure II: The Disuse of Institutions, Un-civility, and De-institutionalization

The range of regulatory failures involved in the boom of the brick kiln sector in the Telangana region includes some of the following:

1. Mines and Minerals Department – Payment of Royalties for excavation of mud
2. Panchayat Raj – norms concerning Village lakes and tanks – auctioning through consensus in villages
3. Revenue Department – Water Land and Trees Act (WALTA) Act
4. Electricity Department – Subsidized slab rates for agriculture transferred informally to brick kilns
5. Factories Act – Registration, Safety Conditions and so on
6. Labor Department – Inter-State Migrant Labor Act, Contract Labor Act, Minimum Wages, and so on – labor regulations.

Thus, increased urbanization is marked by increasing illegality that sustains itself through bribes, caste, and regional identity-based political networks that aid and abet the circumvention of law. This process thus renders the rural areas from where raw materials for construction are being drawn deinstitutionalized with respect to making regulatory institutions and the law itself dysfunctional on one hand and leaves these regions degraded in terms of the quality of both private as well as community resources.

Conclusions: Emergent Future of Brick Kiln Industry and the Consequences for Development and Labor

While increased overexploitation of labor has brought social indignation, the massive depletion of the topsoil from agricultural lands and village lakes is making it increasingly difficult to procure these resources. While overexploitation of labor has led to increasing desertions by workers well before the agreed contract time, with reference to the product, there are substitutes that have emerged.

Sriman Naveen (2015), who has studied the interface between the construction sector and the brick kiln industry and its substitutes, has found that brick kilns are not being preferred by large construction companies.

He argues that the large-scale construction companies prefer cement bricks, also called sponge bricks, which are of lower weight and greater standardization and durability. It seems that, although the mud brick makers have diversified into making lightweight bricks, it may not be as easy for these producers to diversify into making cement bricks. In fact, it may not be possible for the brick producers to carry on with light brick production itself given the fact that the Telangana government has taken up what it calls the Kakatiya mission, under which there is a plan to revive village lakes and provide for the development of minor irrigation. If such investments actually are made, brick producers may soon have no area to source their raw materials from. And with reference to the cement bricks, cement brick making is likely to be predominantly captured by large-scale producers like L&T, which adopt more large-scale high-technology automated production systems. Commercial constructions and high-valued villas and apartments have shown greater preference for cement bricks. It is only in public construction and low-valued residential construction where mud bricks continue to be used. If at all the green field realty among middle and lower middle classes for residential purposes takes off, there can be a lease of life for the mud brick–making industry if other dynamics already mentioned above do not hinder the growth of the industry. However, in dealing with low-income categories, there are sometimes issues pertaining to delayed payments which could hamper the brick kiln producers who operate with credit borrowed at high interest rates (3% to 5% per month). Therefore, given the increased risks, uncertainties, costs, and scarcities, it would seem to be the case that this industry must be seen as something that is seeing its way out in future.

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