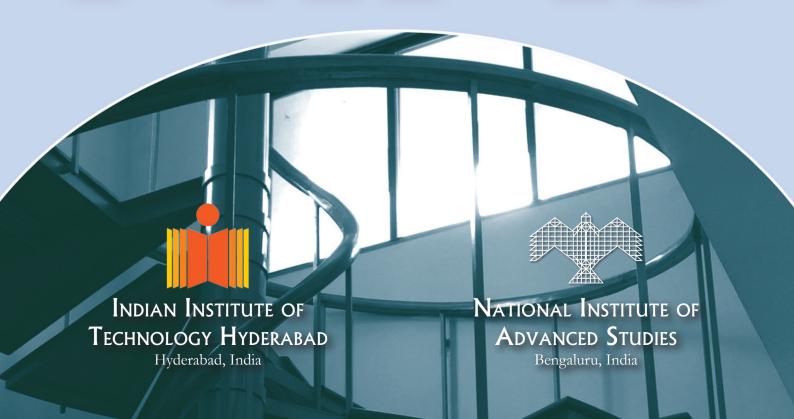


# MIGRANT CONSTRUCTION LABOUR IN INDIA: CONTRACTING CHAINS, LABOUR PROCESS AND SOCIAL WELFARE POLICY



## Migrant Construction Labour in India: Contracting Chains, Labour Process and Social Welfare Policy

December 2025

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## **Executive Summary**

This report presents the findings of a research study on the organisation of the labour supply system in India's construction industry, with a focus on how informal systems of recruitment and labour contracting underpin one of India's largest employers. The study was motivated by the migrant labour crisis during the Covid-19 lockdowns of 2020, when the dependence of India's cities on migrant construction workers became starkly visible, as did the virtual absence of adequate social protection for unorganised and migrant workers. The sudden lockdown in March 2020 dramatically exposed the vulnerabilities of India's unorganised migrant labour force, as millions of workers were left stranded in cities without work, wages or social support. The study examined the efficacy of the new labour policies and welfare schemes that were introduced by the central and state governments in the aftermath of the Covid crisis to address the gaps in policy and law, exploring how they intersect with the dynamics of labour mobility, recruitment and employment in the construction sector.

#### Research questions and methodology

The research was designed around two key objectives:

- (1) To map and analyse the institutional arrangements and social networks through which construction labour is recruited, mobilised and deployed.
- (2) To critically evaluate labour governance for migrant and construction workers and to assess the effectiveness of policy measures introduced by the central and state governments post-Covid in improving access to welfare benefits.

Three sets of interrelated research questions guided the study:

- (1) Organisation of labour supply chains: How is labour sourced for large construction projects? Who are the various actors (companies, contractors, intermediaries, workers) involved? What forms of contractual arrangements and social relationships structure these chains, and how and where is surplus value extracted from the labour of workers on construction sites?
- (2) Labour process on construction sites: How does the use of short-term, mobile, contract-based migrant labour shape production and control at worksites? How are formal and informal mechanisms of labour management intertwined? How are the social relations that constitute contracting chains shaped by, or inflect, the labour process and labour mobility?
- (3) Policy and welfare interventions: How have schemes introduced after the Covid crisis, such as the e-Shram portal and renewed drives to register workers with Building and Other Construction Workers' (BOCW) Welfare Boards, been designed and implemented? What outcomes have they produced?

#### Research methods and scope

The research was carried out in Bengaluru—one of India's fastest-growing cities and a hub of construction—and source regions of migrant construction workers—Jharkhand and Bihar—between

2022 and 2024. The study employed a qualitative and ethnographic methodological approach, including structured and semi-structured interviews with labour contractors (*thekedars*) and their supervisors, managers and engineers employed by construction companies, government officials, NGO representatives, and other key informants. Fieldwork included observations and informal interactions on construction sites in Bengaluru and in several villages and towns of Jharkhand and Bihar and the recording of life and work histories of workers and labour contractors. This multi-scalar approach allowed us to capture both the lived experiences of workers and the broader institutional frameworks within which construction labour is governed.

#### Conceptual framework

Our analysis is situated at the intersection of three strands of theory:

- (1) Labour informality within value chains: Contractors mediate between construction companies and workers, creating a separation between production and employment. Informality is not peripheral but intrinsic to capital accumulation, even in highly corporatised sectors. In contrast to most global value chains where raw materials and components move across space in the process of production, in construction projects it is labour that circulates across spatially fixed worksites.
- (2) Labour process theory: The organisation of production on construction sites revolves around informal modes of organisational control and labour recruitment. Labour process theory allows us to capture and evaluate the pivotal roles of thekedars and their supervisors in managing labour and production on construction sites, embedding informal relations of trust, negotiation and social power within formal systems and contracts.
- (3) Labour geography and mobility. The construction labour force is marked by high levels of mobility, as workers move frequently between different cities, construction sites and thekedars. This fluidity shapes production processes and limits possibilities of worker organisation as well as welfare provision, complicating traditional models of workplace-based labour relations and policy imaginations of stable workforces that would enrol for welfare benefits.

By combining these perspectives, the study demonstrates that informality, mobility and mediation are constitutive features of the construction industry's labour regime.

#### Key findings (1): Tracing the value chain of labour contracting

The research mapped the organisation of labour contracting in Bengaluru's construction industry, identifying the actors, relationships, and processes that link real estate developers, construction companies, labour contractors and migrant workers. The findings presented in section 2 of the report describe a system that is highly fragmented, fluid and trust-based—marked by the interdigitation of informality with more formal project management practices.

#### Mapping the contracting value chain

At the top of the value chain are developers and public sector companies that initiate large real estate or infrastructure projects, which usually subcontract the construction work to one of several large national-level companies that now dominate this sector. These companies in turn hire little labour directly but instead rely on labour contractors to mobilise workers. Labour contractors, or *thekedars*, are

the key intermediaries in this value chain, who represent the main link connecting corporate capital to informal migrant labour, making them indispensable to the industry even as they remain largely invisible actors in the realm of policymaking. At the bottom of the value chain are the workers themselves, who are typically engaged for short periods of just three to six months, returning to their home villages for some time to work their farms before taking up a new job and migrating to another place.

Most thekedars specialise in a particular skill category (e.g., carpentry, bar-bending, masonry, or unskilled labour). For large construction sites in Bengaluru, workers are mobilised mainly from northern and eastern India, brought to the city in gangs of eight to twelve men, who usually migrate without their families. Larger thekedars may supply hundreds of workers across multiple sites and cities, while smaller ones may supply a single gang of ten to twenty workers to one site.

#### Labour mobility and fluidity

The labour supply system in construction is characterised by extreme fluidity. Contractors 'rotate' gangs of workers between their home villages and construction sites to align with regional agricultural cycles and religious festivals, as well as the physical limitations of construction labour. Managers plan project timelines around these temporal rhythms, juggling gangs from multiple states to maintain a steady workforce. Accordingly, site and project managers maintain large databases of thekedars upon whom they call when workers are required.

The short-term nature of most construction work undermines the possibilities of collectivisation or even the formation of a collective identity as construction workers. This fluidity of the labour force, together with the individualised relationship between worker and thekedar, prevents the formation of stable solidarities or collective bargaining power, reinforcing precarity. This churn reflects the fact that most construction workers are engaged in other occupations, especially cultivation, as well as the advantage for construction companies in utilising flexible, disposable labour. It also renders the system nearly impossible to regulate through conventional labour laws, which assume stable employer—employee relationships.

#### Thekedar—construction company relations

Although construction companies follow formal systems of project planning and execution, the labour contracting system depends heavily on personal relationships and trust. To ensure a regular supply of labour, site engineers and project managers employed by construction companies nurture close relationships with thekedars, often carrying these contacts across projects and companies. In turn, a successful thekedar must build a reputation for reliability and an ability to mobilise sufficient workers on time. Contractors also nurture personal relationships with construction engineers and managers to win work orders.

#### Parsing the labour contract

Labour contracts, known as 'work orders', are not legal contracts. The terms are negotiable, and they may even be renegotiated mid-project. A contractor's success in negotiating favourable terms and winning new work orders depends heavily on his relationship with the site manager or project manager. While companies insist on fixed rates, contractors may argue for adjustments when costs escalate or

productivity falters. Disputes are often resolved informally, through personal negotiations rather than legal enforcement. This flexibility benefits both sides but reinforces the opacity and instability of the labour supply system.

#### Mobilising labour

Thekedars recruit primarily from their own home districts, drawing on caste, kinship and village ties. Local agents—often relatives or acquaintances of the thekedar—play a key role in identifying and hiring workers, preparing their documents, and accompanying gangs to Bengaluru. However, the spread of mobile phones has altered the recruitment process, allowing for more remote coordination. These labour recruitment practices illustrate how informal networks substitute for conventional corporate labour management systems. But the patronage relations between thekedars and workers highlighted in earlier studies appear to have weakened in the context of long-distance, short-term construction labour migration. In contrast to the 'debt bondage' that characterises informal employment in many sectors, we found that construction labour contractors offer cash advances mainly to trusted workers they have known for several years.

#### Mobility and the construction labour value chain

The high level of mobility and fluidity of the construction labour force, with gangs of workers constantly entering and leaving construction sites and thekedars coordinating flows of labour across space and time, is key to the extraction of surplus value in this industry. This interdigitated formal/informal system of labour control also allows companies to externalise responsibility for worker welfare and rights while maintaining flexibility and reducing costs.

#### Policy implications

The reliance of construction companies on labour contractors allows them to distance themselves from the business of labour recruitment and employment, which remains firmly within the domain of labour informality. The relationship between construction companies and labour contractors thus constitutes the crucial link in the value chain that mediates between the informal labour contracting system and the formal processes and statutory requirements that constrain the industry. But these categories are not neatly separated: multiple negotiations and frictions mark the notional boundary between organised and unorganised economic activities. Indeed, the reproduction of labour informality within an industry that has increasingly become more consolidated and corporatised, we argue, is key to the generation of value in the construction sector. It also allows companies to maintain a façade of compliance while shifting responsibility for labour conditions onto contractors.

#### Key findings (2): The construction labour process

The labour contracting system also shapes the day-to-day organisation of production on large construction sites in Bengaluru. Section 3 of the report outlines how migrant construction workers are deployed and managed on construction sites, examining the modalities through which surplus value is extracted from the labour of workers. The discussion highlights the intertwining of formal organisational systems with the informal practices through which most construction work is performed and directed.

#### Control over the labour process

The fluid workforces on large construction sites are managed by companies through layered supervisory structures. The key actors include:

- Supervisors—often former workers promoted by contractors—represent the thekedar on site and are the key actors who manage workers and mediate between the site manager / engineers and the performance of work. They are responsible for coordinating the work of their gangs, managing attendance, ensuring output, and liaising with site engineers. Their proximity to workers allows them to exercise direct authority, which they derive from their relationship with the thekedar.
- Site engineers and project managers, employees of the construction company who are responsible for
  managing the project on site and meeting deadlines and quality standards. They coordinate with
  multiple supervisors and contractors, balancing the technical requirements of the project with the
  unpredictable flow of labour. Site managers and engineers do not interact with workers directly,
  but issue orders and manage labour only through the supervisors in charge of gangs.

This tiered system of management on construction sites generates overlapping and sometimes conflicting lines of authority, placing supervisors in the most difficult role since they are accountable both to contractors and site engineers and held responsible for lapses.

#### Measurement and productivity

The structure of the labour contract, or work order, issued to thekedars by construction companies is key to understanding the modalities through which surplus value is extracted from labour. Work orders are generally of two types: (1) 'measurement basis' (or piece-rate) contracts that links payment to the quantity of work to be completed, e.g., x cubic metres of masonry or y metric tonnes of rebar; (2) 'man-day' work orders, issued mainly for unskilled workers, are based on the number of labourers supplied in a given period, calculated according to an agreed daily wage rate.

While all workers are paid on a daily wage basis (plus overtime), most work orders are of the first type (piece-rate), enabling surplus extraction at multiple points. The disjuncture, where thekedars pay workers daily wages but receive payments from the contracting company on the basis of the quantum of work completed, allows them to enhance their margins in several ways—by intensifying work, deploying fewer workers on site than stated in the contract, or strategically calculating workers' payments.

#### Informality within formal organisational structures

Despite the increasing corporatisation of the construction industry, informality pervades the production process. Companies create detailed project plans, timelines and manpower projections, but in practice the progress of a construction project depends greatly on informal negotiations and trust-based arrangements between contractors, site engineers, and thekedars and their supervisors. This blurring of formality and informality is not an incidental outcome of a legacy system of labour contracting but is a structural feature of the construction labour process and of the industry itself.

#### The business of labour contracting

Profit margins of labour contractors depend on their ability to mobilise and manage workers as well as nurture relationships with construction company personnel. Successful contractors cultivate long-term relationships with company managers, sometimes receiving advances or preferential contracts. Yet they also face significant risks, such as delays in receiving payments or sudden project cancellations, which can affect their cash flow, leaving them unable to pay workers. This duality—opportunity and risk—makes labour contracting a precarious business.

#### Digitalisation and compliance

Recent efforts by the government to enforce labour laws through digital technologies have brought in some level of compliance on the part of construction companies, for example with regard to the registration of workers (employed for over six months) for provident fund and health insurance schemes. However, these requirements often are not fully met, again because the labour contracting system allows companies to bypass many obligations. HR managers of construction companies detailed the difficulties they face in complying with various requirements, such as PF and BOCW registration for workers, especially given the fluidity of the workforce.

#### Policy implications

The construction labour process in Bengaluru illustrates a distinctive mode of accumulation, one that depends on the entanglement of informality and formality, inter-dependence and exploitation. Supervisors and thekedars mediate between corporate capital and unorganised migrant labour, creating systems of control that are both personal and impersonal, flexible as well as coercive. For workers, this system offers a temporary source of income higher than otherwise available to them but little security. For contractors, it provides opportunities for profit but also constant uncertainty. For companies, labour contracting ensures flexibility and cost savings while externalising responsibility and complicating project management.

#### Key findings (3): Social policy for migrant workers – issues in design and delivery

The Covid-19 crisis of 2020 prompted the central and state governments to introduce new welfare schemes and digital governance mechanisms for unorganised workers. For construction workers, these included renewed efforts to encourage registration with BOCW Welfare Boards, the launch of the e-Shram portal for the registration of unorganised workers, and multiple state-level social protection initiatives. Section 4 of the report synthesises the study's findings on the design of these policies, their implementation, and their outcomes for migrant construction workers.

#### Policy trajectories pre- and post-pandemic

The BOCW Act of 1996 mandated registration of workers with state-level welfare boards and provided for benefits such as health insurance, pensions and accident compensation. But implementation was notoriously inadequate and patchy even prior to the pandemic, with low registration rates and widespread exclusions, especially for migrant workers.

The pandemic spurred new initiatives in policymaking for migrant and unorganised workers. First, the Ministry of Labour and Employment (MoLE) launched a Mission Mode Project in July 2020 to ensure mass registration of construction workers under welfare boards. The next major initiative was the e-Shram portal launched in 2021, aimed at creating a centralised database of unorganised sector workers with unique identification numbers linked to their Aadhaar IDs. E-Shram was designed to enable portability of benefits across states by linking registered workers with state-level welfare schemes, allowing migrant workers to access welfare benefits regardless of location. State governments also created their own welfare schemes and registration drives, such as the Safe and Responsible Migration Initiative (SRMI) in Jharkhand, which was designed and operationalised by a multi-stakeholder consortium of government, academia, private consultants, and non-governmental organisations. The study examined the operations of these three initiatives in the field, the key findings of which are detailed below.

#### Experiences with worker registration

Our research found that registration processes remain fragmented and exclusionary. Many workers reported difficulties in registering for e-Shram or BOCW databases due to:

- Lack of valid Aadhaar-linked mobile numbers
- Problems with biometric authentication
- Inadequate information about schemes and benefits
- Dependence on intermediaries to complete registration and access benefits
- Loss of workdays due to bureaucratic hassles in registration

Even when workers managed to register on these portals, the process rarely translated into actual access to benefits. Migrants moving between states found that welfare entitlements were not portable in practice.

#### Digitalisation as a new barrier

Digitalisation of welfare provision is intended to resolve long-standing problems of duplication, leakage, and lack of data. However, in practice it has created new barriers, for the following reasons:

- Workers with low digital literacy or without smartphones tend to be excluded.
- The process of creating databases, particularly with the e-Shram initiative, is riddled with technical problems such as incomplete data, problems due to import of incompatible or inaccurate legacy data, empty fields within existing databases, and paucity of trained staff.
- Multiple overlapping registration systems, identity cards and databases has led to confusion.

For many workers, digitalisation has failed to ease access to social welfare benefits but instead added another bureaucratic hurdle. E-Shram's promise of creating a transparent and comprehensive database of unorganised workers and enabling access to and portability of benefits has remained largely unrealised.

#### Mediating welfare delivery

Increasingly, private consultancy firms, civil society organisations, and other third-party agencies have become key actors in the design and implementation of social protection schemes, narrowing the role of the state (and hence accountability to the citizenry) in welfare delivery. In Jharkhand, we found that NGOs are crucial in welfare delivery, helping unorganised and migrant workers register or claim benefits. In Bengaluru, several construction companies have tied up with NGOs to run registration drives at worksites.

#### Assessing outcomes

Despite high-profile announcements of new policies and schemes to provide social protection for unorganised and migrant workers, delivery of welfare benefits and social protection remains limited. Many construction workers possess multiple 'labour cards' but most were unaware of their use or benefits. They also reported difficulties in claiming accident compensation or enrolling for health insurance. Overall, we found widespread lack of clarity about eligibility for pensions or benefits under various schemes amongst workers, as well as very low levels of direct benefit transfers. The persistence of these gaps reflects structural challenges:

- Federal system: Responsibility for labour welfare is divided by law between central and state governments, leading to friction between different levels of government that reflect ongoing tensions within the concurrent structure of labour governance in India.
- Mismatch between policy framework and ground realities of unorganised contract labour. Digitalised welfare
  schemes tend to assume stable employment, phone numbers and residence of workers, although
  construction labour is highly mobile and short-term. Even the e-Shram portal, meant to create
  a database of unorganised workers, assumes that workers have only one address and requires
  migrants to register their change of address whenever they move to a new place for employment.

#### Policy implications

The efficacy of the new welfare schemes for unorganised and migrant workers is hampered by poor design of online platforms and software; inadequate technical literacy of government workers; insufficient staff and resources; non-portability of benefits; and the inability of many migrant workers to access the documents and technologies used by these schemes. The implementation of welfare schemes and compliance with labour regulations rely heavily upon third-party organisations and other intermediaries, reducing the state's accountability for data collection and entry and magnifying the scope for slippages or errors. Many workers find themselves lost amidst a plethora of 'labour cards', with little awareness about their utility or unable to claim benefits. Overall, our findings suggest that the act of digital registration in the relevant database has emerged as a proxy for welfare itself, diluting the needed focus on increasing and streamlining the delivery of benefits. Without portability, registration drives risk becoming symbolic rather than substantive.

#### Conclusions

India's construction labour force is characterised by mobility, informality and intermediation. Far from being residual or peripheral, these features are constitutive of how capital accumulation, labour control

and welfare governance operate in this key sector of India's economy. Further, the production process on construction sites is structured around, and benefits from, a constantly fluctuating, unorganised, and temporary labour force. The systems of labour recruitment, deployment and control that hinge on informal labour market intermediaries (thekedars) are designed to accommodate this flux.

#### Key findings

- Labour informality as a structural feature of the construction industry
  - Labour informality is not an aberration that will slowly disappear with economic development but is a central mechanism through which value is generated in the construction industry. Labour contractors mediate between companies and workers, creating layers of flexibility and shifting responsibility downward. This blurs the boundaries between formal and informal, organised and unorganised, revealing a hybrid labour regime.
- Mediated labour process
  - Intermediaries—especially thekedars and supervisors—are pivotal to organising production, extracting surplus value, and mediating between capital and labour in this sector. Labour control is rooted not in formal contracts but in social relations of trust, negotiation and flexibility.
- Limits of digitalisation of welfare governance
  Digitalisation has not addressed the major issues facing informal labour. The post-Covid drive for registration of workers in digital databases (e.g., e-Shram) has diverted policy attention away from the main and continuing issues of welfare delivery and portability.

#### Policy recommendations

Drawing on our key findings, we propose the following policy interventions:

- (1) Strengthen accountability across the value chain, centring principal employer and labour contractors in governance frameworks.
  - Companies currently externalise responsibility for labour conditions, such as through joint registration requirements and penalties for delayed payments or fraudulent practices. Current policies also largely ignore the role of the thekedar in labour recruitment and management in the construction sector, allowing them to function as informal intermediaries rather than institutional actors, due to lax registration requirements. Effective governance must acknowledge their centrality to the construction labour process, regulate their activities, and integrate them into accountability systems. Policies should create mechanisms for shared liability, ensuring that principal employers and labour contractors are made accountable for workers' employment conditions and welfare. Consultations with all stakeholders could help to formulate workable policies and rules to achieve these goals.
- (2) Implement portability of welfare benefits
  - For migrant workers, welfare must travel with them. Building truly portable systems requires:
- Inter-state coordination between BOCW Boards
- Improvement and refinement of e-Shram portal to enable data sharing among state and central welfare schemes

• Development of clear protocols for accessing benefits regardless of place of registration, employment or residence

#### (3) Conduct more policy-oriented research

To strengthen policymaking in this arena, a larger comparative study of the implementation of e-Shram, across several states, is needed, focusing on data-sharing and portability initiatives. Such a study would also explore how well the central scheme harmonises or connects (or clashes) with state-level policies and initiatives.

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We dedicate this study to the memory of Rohit Bisht.

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### Introduction

The fault lines of rural-urban, socio-economic and regional inequalities in contemporary India, and the significance of migrant labour in India's cities, was brought dramatically into public view by the Covid lockdown of March-April 2020, when thousands of migrant workers were forced to make their way home on foot or by any available means of transport. The migrant labour crisis made starkly visible long-standing problems of labour informality, and particularly the absence of a social safety net or even legal recognition of most migrant workers (especially inter-state migrants). The spectacle of workers stranded in cities such as Bengaluru, with little or no support from their employers or the national, state or local governments, highlighted the need for a better understanding of the organisation of labour recruitment and employment in the construction sector. This was the main motivation for us to undertake research on the labour contracting system in the construction sector—the biggest source of employment in India after agriculture.

The central government's first response to the migrant worker crisis was the introduction a Mission Mode Project (MMP) in July 2020 by the Ministry of Labour and Employment (MoLE), which aimed to ensure that all construction workers are registered with the state-level Building and Other Construction Workers (BOCW) Welfare Boards. Subsequently, the central and state governments initiated several schemes for the social protection of migrant workers, such as the e-Shram portal for the registration of unorganised sector workers. The second key motivation of this study was to examine these policy interventions and their effectiveness and consequences.

The overall objective of the study was to map and understand the institutional arrangements and governance frameworks that structure the recruitment, deployment and mobility of labour in the construction sector in India. We argue that labour mobility is governed or managed by a series of interlocking, formal and informal, multi-scalar structures, networks and relationships which span source and destination regions in circuits of migration, and which include both 'organised sector' entities and 'unorganised sector' actors and workers. Within labour governance we include the policy framework, labour laws and regulations, and welfare schemes designed for the social protection of migrant workers, which operate at different scales (local, state, national).

#### 1.1 BACKGROUND

The economic reforms undertaken in India since the 1990s have emphasised urbanisation and infrastructure as keys to economic growth. Several policy changes fostered the rapid expansion of real estate and infrastructure development and a construction boom, sharply increasing the demand for construction labour, especially in the metro cities. Construction and real estate have been among the fastest-growing sectors of the Indian economy in recent years, accounting for about 10 percent of output and the second largest source of employment after agriculture, accounting for 20.3 percent of the total non-agricultural employment in 2011-2012 (Srivastava and Jha 2016: 13).

The rapid expansion of the construction industry following liberalisation was also marked by consolidation, as several large companies grew quickly and came to dominate this sector, pushing out or absorbing smaller players. The success of what are now the largest construction companies in India—Larsen & Toubro (L&T), Shapoorji Pallonji (SPCL), Hindustan Construction Company (HCC), NCC Limited, and GMR Group—can be attributed not only to their technical expertise or deep pockets, but also to their capacity to recruit and deploy large numbers of workers on construction sites projects. However, information about the organisation of labour contracting cannot be found in management manuals, civil engineering textbooks, or company organisational charts, although there is plenty of in-house, informal knowledge about how labour is sourced and managed—knowledge that we sought to gather and document through our research.

Although the construction industry is now dominated by a few major players and has become highly organised and regulated (at least at the top end), it continues to rely largely on an unorganised workforce sourced through informal labour contractors. Most jobs are low-paid and precarious, marked by an absence of social protection and poor implementation of labour laws. According to one estimate, 96.8 percent of paid employees in construction lack written contracts and 97.8 percent lack any form of social security (Srivastava and Jha 2016: 12). Investigations by civil society organisations and researchers during and after the pandemic highlighted the exclusion of short-term migrants from urban citizenship and policies (Aajeevika Bureau 2020; Bandyopadhyay, Banerjee and Samaddar 2021; Samaddar 2020).

The employment of informal migrant labour in large capitalist enterprises via contractors has a long genealogy in India, marked by varying and shifting forms of mobility and contractual relations (Roy 2008; Tumbe 2018). However, the pattern of long-distance migration combined with short-term contracts that we see in the construction sector today is of relatively recent origin. Over the last two to three decades, construction projects have been undertaken at a scale not seen earlier, requiring the

The expansion of the construction sector was driven by several policy changes. First, in 2005 the government permitted for the first time100% foreign direct investment in the real estate sector, stimulating large flows of international capital (especially from US-based private equity funds) into real estate projects (Searle 2016). Second, the introduction of the Real Estate Regulation Act (RERA) in 2016 led to a consolidation of the industry by driving out smaller players that could not adhere to the new regulations, bolstering the position of larger companies and relegating smaller builders to minor projects. These developments allowed Indian real estate developers to undertake much larger projects than earlier, sharply increasing the size of workforces on construction sites. Apart from private real estate projects, government and public-private infrastructure projects, such as Bengaluru's metro rail, employ very large numbers of construction workers.

recruitment of large numbers of workers. This shift altered the pattern of labour recruitment and mobility, as labour is sourced from ever more distant regions and in greater numbers.<sup>2</sup>

According to industry interlocutors, Bengaluru witnessed a major shift in the sourcing of migrant construction labour since the 1990s. Earlier, migrant workers came mainly from neighbouring south Indian states such as Tamil Nadu and Andhra Pradesh, but as economic development in those regions drove up wages and workers had less incentive to migrate, construction companies began drawing labour from more distant and 'backward' regions. Now, construction labour on large projects in Bengaluru is sourced almost entirely from what is loosely referred to as 'North India' (a catchall term that includes eastern India)—mainly from the states of Bihar, Jharkhand, West Bengal, Uttar Pradesh, Assam and Orissa. However, older builders in Bengaluru point out that even before the construction boom, workers were sourced from across India because different construction skills were regionally embedded. While unskilled labourers and 'helpers' came from northern Karnataka, plumbers and masons were recruited from Orissa, carpenters from West Bengal, stone workers from Rajasthan, and so on. Although the spatial extent of construction labour recruitment to Bengaluru has expanded enormously (especially for unskilled labour and jobs that require large numbers of workers, such as masonry, carpentry, and bar-bending), these older sources of skilled construction labour (such as marble workers, carpenters specialising in interiors, tile workers) are still tapped.

With the increased sourcing of workers from 'north India', the construction labour market in Bengaluru has become regionally segmented: big projects requiring large numbers of workers (such as the metro rail and other large infrastructure projects, tech parks, and large apartment complexes) are usually contracted to one or several of the large national-level construction companies, which in turn rely upon long-distance, short-term male migrant workers from northern and eastern India sourced through labour contractors. In contrast, smaller projects undertaken by local builders or companies, such as individual houses or small apartment buildings, mostly employ workers from drought-prone areas of northern Karnataka or other more proximate regions. In this segment, construction workers often migrate as families and both female and male workers are employed on sites (Pattenden 2012, 2016). These two modalities of labour sourcing are quite distinct, constituted by different sets of actors and forms of labour contracting. Our research focused only on the former: the labour contracting system that supplies 'gangs' of male workers from northern and eastern India to large construction sites in Bengaluru.

This new system differs from the long-standing pattern of circular or seasonal migration that characterises industries such as mines, plantations and brick kilns, where workers move between their home villages and the same production sites on an annual or regular basis (e.g., Shah 2006). In contrast, the biographies of construction workers interviewed in Bengaluru revealed that most had worked in several different cities and in multiple sites (and often in different types of jobs) during the course of their 'careers'. As we elaborate below, labour mobility in the construction sector is not characterised

The expansion in short-term and cyclical labour migration is also an outcome of dwindling agricultural incomes and the decreasing average size of agricultural holdings, forcing many small and marginal landowning rural households – especially in poorer regions – to seek employment in non-farm occupations. This has reinforced the growing trend of diversification of livelihoods across rural and urban spaces and different sectors of the economy (Chatterjee 2020; Datta 2016).

by stable or identifiable pathways, and the labour contracting system too is unstable and diverse, as workers easily change contractors and sites. Workers seem to accept jobs that are sufficiently attractive as and when needed, and they 'go wherever they are sent by the thekedar', as one put it. Because of its irregular and shifting character, the extent and scale of long-distance, temporary labour mobility are difficult to measure (GoI 2017; NCEUS 2009). However, a recent estimate (2018) puts the population of short-term migrants in India at around 51 million, of which 27 million work in construction (Srivastava 2020b: 9).

Against this background, in the next sub-section we lay out the objectives of the research described in this report and the methodology employed. This is followed by an outline of the conceptual framework through which the research findings are analysed. The key results of the study are presented in the three main sections, which address the following themes: the organisation of labour contracting (section 2), the construction labour process (section 3), and policies and programmes for the social protection for migrant construction workers (section 4). The concluding section (5) summarises the key insights from the research, emphasizing policy-relevant points and possible interventions.

#### 1.2 Research questions and methodology

The research reported here focused on three main dimensions of construction labour contracting:

- 1) Organisation of labour supply chains in the construction industry

  How is construction labour sourced in large construction projects in Bengaluru? Who are the key actors that constitute the value chains of labour contracting (employers, government agencies, labour market intermediaries, workers)? What kinds of relationships and contractual arrangements connect these actors? How and where is surplus value extracted from these contracting chains? In what ways do state policies intervene in their operations?
- 2) Labour process in construction projects

  How does the extensive use of short-term, temporary and highly mobile labour on construction sites impinge upon the process of production and labour control? In what ways are 'informal' and 'formal' mechanisms of control intertwined in the organisation and management of construction projects? How are the social relations that constitute contracting chains shaped by, or inflect, the labour process? How and where is value extracted from labour in construction projects?
- 3) Implementation and outcomes of post-Covid policies and schemes
  How do the policies and welfare schemes that were introduced for migrant workers following the
  Covid crisis operate on the ground? What are their implications (also in relation to the new labour
  codes) for labour contracting and employment conditions? How have different actors within labour
  contracting chains responded to these government interventions?

In line with the research objectives, our methodological approach was mainly ethnographic and qualitative. Specific research methods and protocols were designed to produce in-depth and detailed

accounts of the structure and functioning of labour supply value chains and the implementation of policies and programmes on the ground.3

The main research methods employed included:

- structured and semi-structured interviews and informal interactions with selected respondents, including labour contractors; managers and employees of construction and real estate companies: migrant construction workers; government officials; employees and representatives of NGOs, consultancy firms, and other civil society actors; key informants;
- life and work histories gathered from a smaller cohort of contractors and workers
- interactions and observations at construction sites in Bengaluru and in villages in Bihar and Jharkhand (source regions of migrant workers);
- data collected from relevant primary sources and media.

Bengaluru was the main research site for the study. We also carried out fieldwork in source regions of migrant construction workers in Bihar and Jharkhand.<sup>4</sup> Fieldwork was carried out in several rounds between October 2020 and March 2024. In Bengaluru research was conducted during October 2020 to January 2021, November 2021 to December 2022, and January to March 2024. In Bihar, research was conducted in March 2022 in Patna and villages of Saharsa and Gaya districts, In Jharkhand, fieldwork was carried out in Ranchi and Palamu and Dumka districts during September-October 2022, February-March 2023, and August 2024.

#### 1.3 Conceptual framework: Labour informality and mobility within value CHAINS OF PRODUCTION

Informal contracting has long been a key feature of labour recruitment and control in South Asia, with historical roots in colonial systems of resource extraction and production. In the extensive literature on labour contracting and labour migration in South Asia, contractors, or thekedars, are often characterised

Below is a summary of the number of interviews and other field research carried out:

Labour contractors	59
Construction workers	72
Supervisors	14
Government officials (mainly Labour Department)	14
Senior managers of construction and real estate compa	nies 7
Project managers, site engineers	12
NGO, labour union representatives and workers	32
Key informants, experts	9
Political representatives	3

In addition, numerous village visits and construction site visits yielded field notes of observations and informal interactions with groups of workers, thekedars and other interlocutors.

Fieldwork was carried out according to a research ethics protocol approved by NIAS. Data storage, protection and sharing protocols followed NIAS research ethics guidelines. The confidentiality and privacy of participating respondents and organisations are protected by using pseudonyms or changing some details of research sites. Pseudonyms are indicated by quotation marks on first use.

as exploitative agents who exert power over migrant workers through relations of debt dependency (Deshingkar and Farrington 2009; Srivastava 2020a). Contractors not only control the supply of labour, they also largely determine the living and working conditions of migrant workers. Several studies have explored how contractors mobilise ties of caste, kinship or place to recruit and manage workers, highlighting the social relations of patronage (as well as, at times, mutual care) that create a hierarchical relationship of power and control (Pattenden 2011; Picherit 2009; Shah and Lerche 2020). Other scholars have nuanced the notion that the contracting relationship is structured by relations of 'patronage and exploitation' (Breman 1996), pointing to the ambivalent and variable position of the labour agent in mediating between capitalist enterprise and workers (Carswell, De Neve and Yuvaraj 2020; De Neve 2014; Picherit 2018; Raj and Axelby 2019), or to workers' agency and strategies for coping with precarity (Carswell and De Neve 2013; Deshingkar 2019; Picherit 2012).

Although most studies frame labour contracting as a 'chain' or 'network', with the thekedar at the apex or centre deploying his social power to source and manage workers needed by capitalist enterprises, more attention has been paid to the relationship between the thekedar and his workers (and the thekedar is always a 'he') rather than to his relationship with the company for which he supplies labour. What strategies do thekedars employ to win and execute work orders? What is the nature of their relationship with managers and engineers employed by construction companies? How are labour contracts structured? To fully understand the labour supply system and the labour process in this industry, we need to explore the range of relationships or linkages that constitute contracting chains both below and above the level of thekedar.

The ubiquity of labour contractors across most sectors of the Indian economy, from manufacturing and infrastructure development to plantations and agriculture, suggests that informality is intrinsic even to production systems categorised as 'organised sector'. Contractors serve important functions, especially in labour-intensive industries such as construction, and thus are integral to processes of capital accumulation. In this report, we examine several ways in which the organisation of labour supply through sub-contracting is an intrinsic feature of the value chain of production in this sector, even though the significance of contracting is largely invisibilised or obfuscated by its informal character. Thus, we engage with debates about the production and reproduction of informal labour relations within value chains of production, drawing on a wider body of literature on global value chains (GVCs) and global production networks (GPNs).

Several scholars have noted the increasing prevalence of contractual and informal labour within global production networks, creating a 'parallel workforce' of informal or relatively 'unfree' labour (Barrientos 2013). Within such systems, labour contracting enables a separation between the productive engagement of the worker in economic activity (producing goods or services) and the contractual engagement of the worker (understood as 'employment') by a separate labour contractor. By supplying labour to producers while assuming responsibility for their employment, labour contractors mediate between two distinct dimensions of labour—as a factor of production and as workers with social agency and rights (Barrientos, Gereffi and Rossi 2011; Selwyn 2012). In return for this service, labour contractors extract an economic rent or profit from the producer, an arrangement that opens up space for abuse within the employment relationship. Labour contracting is integral to the flexible commercial functioning of GPNs across borders in a liberalised global economy, also providing a channel for the entry of unfree labour into the heart of global production (Barrientos 2013: 1066).

Research in India highlights the ubiquity of informalised contract labour in export-oriented industries such as readymade garments (Carswell and De Neve 2013; De Neve 2014; Mezzadri 2010, 2014; Mezzadri and Fan 2018), as well as industries that form part of global value chains such as automobile components manufacturing (Barnes et al. 2015). Real estate and infrastructure projects may also be considered part of global value chains in that they have received substantial injections of foreign capital over the last two decades (Goldman and Narayan 2021), yet a GPN or GVC perspective has not been applied to the construction industry.

To understand evolving processes of capital accumulation in this context, we cannot restrict the analysis to the relationship between the contractor and the worker but also need to examine the larger dynamics of labour deployment and management within the organisation of production in the construction sector as a whole. In this report, we also draw on labour process theory to analyse our findings on the organisation of labour supply and the management of workers in the construction industry. The first wave of labour process theory focused on the 'dynamics of control, consent and resistance at the point of production', arguing that the processes and modalities of 'work organisation, division of labour, control structures and cultural management' at sites of production are crucial to understanding the operations of capitalism (Smith and Thompson 1998). Subsequent work expanded the scope of this theoretical stream to the dynamics of work and life beyond the site of production, as well as to varieties of work, spatial and temporal concerns, and the role of social organisation and inequalities in the labour process (Thompson and Smith 2010). Drawing from these discussions, we suggest that the spatial dynamics of mobilising and deploying a large and fluid workforce from distant regions of India has shaped the organisation of work and the labour process on construction worksites in Bengaluru.

As has been widely noted, the continuing dependence of construction companies on contractual and informal labour allows them to evade most labour laws and regulations and thereby enhance profit margins. While our research in Bengaluru supports this argument, our study sought to delve more deeply into the organisation of labour contracting to understand how different aspects of 'informality' and 'formality' are intermeshed in this system of labour supply and management. Such an analysis is also necessary to gauge how surplus value is generated and extracted through the relations and transactions that constitute the labour contracting chain, and to trace where and how it is captured at different points in the value chain.

In this report, we uncover several dimensions of accumulation through informalisation across the value chain of production in construction projects, delineating the specific processes that enable the informalisation of ostensibly 'formal' practices in the construction industry. We also explore the wide range of informal arrangements that shape the labour process on large-scale construction sites. As we elaborate in the following sections, the thekedar is the crucial link that mediates between the construction company (organised sector) and the informality of employment relations.

Because construction workers are highly mobile, our analysis also builds on a third theoretical perspective drawn from labour geography. Economic geographers have highlighted the role of workers and labour mobility in consolidating specific variations of the labour process and the production space (Herod 2023; Massey 1994). These scholars argue that the agency of labour is equally relevant to understanding why capitalism consolidates in particular forms at particular places (Chari and Gidwani 2005; Herrod,

Rainnie and McGrath-Champ 2007; Neethi 2016). However, two features of our empirical context lead us to diverge from these theoretical formulations. First, although labour geographers have widened the lens beyond the shopfloor to understand the operations of global capital, most studies continue to assume a largely static or situated workforce and a spatially situated workplace—even while acknowledging the sourcing of labour through migration. But the rather unique nature of the construction production process in India, and its highly unstable and mobile workforce, means that neither the worksite nor the workers are fixed in space (beyond relatively short intervals of time when a project is being executed). Even within a spatially fixed project site, workers are constantly cycling in and out according to the stage of construction.

To conceptualise this dynamic domain, Sargent (2018) usefully describes the labour contracting system as an 'inverted supply chain'. In supply chain systems, the production process is spatially dispersed as components move across space, taking advantage of differential labour forces, resources and wages. Sargent argues that construction projects in India also operate on the supply chain principle, but the structure is inverted because the production site is spatially fixed while it is labour that circulates through it (Sargent 2018: 154). This is the case both at the level of projects—workers move around the country and across different construction sites—but also within the project.

In studying the mobile and fluid workforce of India's construction sector, we find that labour is simultaneously concentrated at worksites (for discrete periods of time) and also spread across the landscape, frequently in motion. These features shape the kinds of relationships they may develop with one another, their contractors and their employers (Herod 2023: 235). Thus, the 'meanings of labour' (2023: 235) for mobile construction workers must be sought both within the current worksite and its labour camp as well as within the networks of mobility that sustain these structures of accumulation.

An analysis of construction labour is further complicated by the fact that most workers are engaged in short-term, 'cyclic' or circular migration to work in construction only part of the time—they are also cultivators whose households own small plots of land in their home villages from which they derive some level of subsistence or income, or they may be petty commodity producers, or they may be engaged in other kinds of wage work at different times of the year or stages in their life histories. Their 'occupations' change as they move through time and space, and their incomes are combined with other sources of livelihood pursued by members of their households. An analysis of this growing pattern of 'translocal householding' (Gidwani and Ramamurthy 2020), which has become central to social reproduction across many regions of India (Choitani 2022; Rajan et al 2025), is beyond the scope of this study, but is an important dimension of construction workers' livelihood and household decisionmaking strategies that must be kept in mind.

The shifting forms of work and livelihood that mark construction workers' life histories raise important questions about their identity as workers, the meanings and values of labour for them, and the possibilities of developing a collective identity. Yet most discussions of worker agency are concerned with direct capital-labour relations, ignoring the vast networks of intermediaries that prop up the production process at various junctures. Studies of labour contracting in India have focused on how thekedars mobilise migrant workers, with less attention paid to their pivotal role in organising and managing workers and their labour on construction sites.

Nor do we have a deep understanding of how surplus value is generated and extracted through the relations and transactions that constitute the labour contracting chain. Our research suggests that these networks, in which 'informal' relations are deeply entangled with formal norms and processes, are largely based on mutual trust—an essential element cited by most interlocutors that marks the relationship not only between the worker and the contractor, but also between the labour contractor and his supervisor, the thekedar and site engineer or project manager, and so on. In this report, we probe these relationships and the forms of social power that animate the labour process on large-scale construction sites.

Finally, in arguing that the dynamics of labour mobilisation and deployment, as well as the mobility of workers, are central to processes of accumulation in the construction industry, we move beyond analyses that separate the labour process (as a system of control and subjugation on the shopfloor) from the domain of social reproduction (processes that contribute to the social regeneration of the worker), and align with approaches that consider their combined role in contemporary processes of accumulation (Mezzadri 2018, 2022). In our case, this distinction appears to be more fluid: forms of labour control, at least of the more violent or despotic varieties, are not central to accumulation in the same way as often seen in more fixed sites of production or top-down supply chains. The highly mobile character of labour in the construction sector necessitates the development of supervisory structures that rely concretely on relations rooted in culture, identity, sociality, trust and belongingness. At the same time, these connections and allegiances are dynamic and instrumental.

In exploring the 'embeddedness of economic actors in place', Andrew Herod (2023) points out that the behaviour of both capital and labour is informed by the tension between their ability to move or stay in a place. Mobility decisions are shaped by the scale of capital investment, the political climate (for capital), and (for labour) the availability of work, the ability to disengage from social networks, age, family status or broader social factors (2023: 236). Herod considers this 'spatial conundrum' as 'spawning tensions between allegiances to place and class' (2023: 236). We consider these tensions as relevant to our case as well, since the presence of a large but highly mobile workforce influences the assessments of capital about their deployment and management: the production process is designed to accommodate, account for, and manage the constantly fluctuating and 'rotating' labour force, and construction companies have developed systems of control and negotiation that accommodate (and profit from) this flux. In sections 2 and 3 below, we provide descriptive accounts of labour mobilisation and the management of production on construction sites to demonstrate that the labour process in this context cannot be explained only in terms of dynamics at the work site but must also encompass the formation and operations of the labour contracting chains that mobilise workers.

Turning from circuits of capital and labour in the construction industry, section 4 addresses the question of the state and its role in the governance of labour migration. The discussion focuses on the design and implementation of social protection policies for construction workers. We explore

the structure, implementation and outcomes of the various policies and welfare schemes that were initiated following the pandemic-induced migrant labour crisis of 2020-21, paying particular attention to the digital identification and registration systems that were introduced and their implications for workers' access to social rights and welfare benefits.

Our study reinforces the observations of numerous previous studies on the poor implementation of the legal and policy framework for the social protection and labour rights of workers in India, especially in the unorganised sector (Bordoloi, Farooqui and Pandey 2020; Jhabwala 2013). The efficacy of existing governance frameworks, both for informal workers in general (Khera 2017), and especially for construction workers (Roy et al 2017), have come under scrutiny. Discussions on the persistence of informality in the Indian labour market point to the combined role of capital accumulation strategies and changing regulatory environments in shaping this trend (De 2020). The increasing market orientation of systems of social protection and their reliance on data-based governance mechanisms have also raised questions about the actual beneficiaries of these emerging welfare systems. Kar (2024: 328) argues that the changing relationships between capital, labour and social protection systems imply that the benefits do not always accrue to the supposed beneficiaries. In other words, social protection systems cannot be viewed in isolation from their relationship to the organisation of capital and state, and their combined effect on shaping the labour market.

In our analysis of policy measures aimed at migrant and unorganised sector workers, we draw from and extend these discussions, in two ways. First, we argue that inconsistencies and failures in policy implementation must be contextualised within the larger history of labour governance in India, even when examining more recent efforts such as digitalisation. We find that the federal aspects of labour governance, the complicated division of responsibility between the central and state governments in setting common standards and baselines for policy and data management practices and the vagueness of portability initiatives for migrant workers play important roles in shaping the outcomes of digitalisation initiatives as well. Second, we outline several ways in which the shifting circuits and modalities of labour mobility, and the intermeshing of the formal and the informal in the constitution of labour supply chains mitigate against the effective implementation of social protection and labour rights for migrant workers. The strengthening of these tendencies in the new central labour codes has been noted in the literature (Munjal and Bamba 2024). The role of the state in enabling a regulatory environment which reduces accountability on employers and intermediaries and blurs the lines between formal and informal can be glimpsed in our fieldwork. However, the actual operationalisation of these processes invites further study.

## The Value Chain of Labour Contracting

Our research attempted to identify the various actors and relationships that constitute the labour supply value chain, from real estate and construction companies at the top through diverse intermediaries to workers and work sites at the end, and to understand the contractual arrangements or social relations that connect these various actors. In this section, we summarise our findings on these themes. We show that the recruitment and control of migrant workers in the construction sector is marked by dynamic and complex matrices made up of diverse institutional arrangements, as value chains of labour sourcing link diverse actors and organisations across space and scale. In our analysis, the thekedar remains the pivotal actor—not only because of his relationship with workers, but especially as he represents the key actor or hinge that connects the informality of labour relations with 'formal' management processes and structures within the value chain.

As noted above, one finds very large workforces (of several hundred to over a thousand workers at one time) on large construction sites, mainly composed of short-term migrants. These workers usually arrive in 'gangs' of eight to twelve members, brought by labour contractors or their agents, which often work for just four to six months on a job. Work histories we gathered from construction labourers show that they frequently cycle between different cities and construction sites and their home villages. It is difficult to trace how this system of long-distance, short-term labour supply system emerged in Bengaluru, but it appears that contracting chains developed organically to supply workers from newer source regions to large construction companies. That the sourcing of construction labour from distant parts of north and eastern India is a relatively recent phenomenon is illustrated by the story of a supervisor employed by 'Satish', a contractor from Bihar who was working on a Bengaluru metro site. 'Ravi' told us that he began working with Satish as a 'helper' in 2003, which is also when he first came to Bangalore. He found life in the city very difficult at first because he did not understand the language and not many people spoke Hindi:

When I told a relative back home that I worked in Bangalore, that person asked where this was—he had never heard of it! When I told him that the city was 50 hours by train from their village, he was astonished. Now there are so many workers from my area coming to Bangalore.

'Manish', a supervisor whom we met at a construction site in Bengaluru and who Rohit later interviewed in his village in Jharkhand, related this change in migration patterns from the other end. Manish's family owns three bigha (around one acre) of land, but he said that because of the expenses of tractor hire and modern seeds and fertilizers, farming has become costly, so without working outside it is not possible to 'run the household'. His father used to migrate to Bengal to work as a farm labourer, while Manish has worked in distant cities. He observed that people used to migrate from his village to nearby places such as Bengal, or at most Assam (which was considered to be very far away), but now people travel to Bangalore and Chennai. Arjun, who had been migrating for construction work for 15 years, noted that with the coming of mobile phones it was now easier to travel such long distances.

These new labour supply chains emerged alongside (but probably not out of) existing contracting networks that sourced workers from regions closer to the city, such as Andhra Pradesh, northern Karnataka and Tamil Nadu. Since thekedars usually recruit workers from their home regions or districts, contractors from the new source regions presumably stepped in to meet the rising demand for single male workers for construction projects in Bengaluru. But as the life histories we gathered from several thekedars suggest, the scope and organisation of labour contracting is highly variable across different regions. Consequently, an important insight of our research is that labour contracting is not characterised by stable 'chains' or 'networks', unlike other labour migration pathways documented in the literature (Tumbe 2018). Instead, labour supply on construction sites is constantly shifting, depending on thekedars' relations with construction companies (via their engineers and managers) as well as their skill in cultivating relationships with workers. The scale of a contractor's operations and their success in the business depends largely on these relationships as well as their experience and negotiating prowess, rather than on long-standing traditions or avenues of labour migration from particular regions—as we detail below.

Long-distance construction labour migration is marked by two striking features: its seasonality and the brevity of the contracts. Contractors and construction companies both accept that workers will stay only for short periods of time—three to four months (sometimes up to six months)—on the job, returning home for important festivals, during peak agricultural seasons such as harvest or sowing, or for elections. But several interlocutors noted that construction labourers cannot work more than four months at a stretch because they become exhausted due to the intense pace of work and long hours. Satish explained:

Isse jyada mai usse kaam nahi nikal payega [we will not be able to make them work for more than that]. Thakawat hota hai, iske haad udhar se admi arrange rehta hai, idhar se chodte hain udhar se admi a jata hai [they get exhausted, so after that we arrange a replacement. The worker leaves from here and his replacement will come from there]. If we keep them, they will not be able to give proper output, and the company will not pay us properly. Then we have to pay from our own pocket. The company will say that this is the work order, so you have to work at this pace.

Another thekedar from Bihar spoke about the 'rotation' of gangs from different regions in accordance with the agricultural cycle and festivals:

These workers all come from agricultural families. But they don't have work all the time in the fields. When they have agricultural work, they are in the village, but when they don't have this work, they can't just sit idle. They have to look after their families, so they come here for work. During the agricultural season, we get fewer workers. And some people take less interest in agriculture because they earn more working as a labourer here. We do get pressure from builders to bring workers. So, then we look for workers from different states which have different cropping patterns. We have workers from many areas because not every area has the same crop timings.

The calendar of festivals, which vary by region and religion, is crucial for planning construction projects. A contractor for unskilled workers from Odisha recounted:

The workers keep coming and going from work to the village. They go to celebrate different festivals like Holi and Dussehra. Some Adivasi Christians go to celebrate Christmas. [Isn't it a problem to get workers from just one region, since they all leave during the festival season?] I arrange for other workers a month ahead and book their tickets. It never happens that they all leave together. Like now I have 25 workers; if ten are going home I will arrange for another ten workers before that. Workers also must inform me a month before they leave, because I have to clear all the dues up to the date they leave.

Site engineers and project managers also talked about sourcing labour from different regions across the project cycle to ensure sufficient workers on site:

We plan the work around the workers' main festivals. Depending on where they are from, they go home for Holi, Durga puja, Id, and so on. We request the thekedar to ensure that the work is completed before they go for holidays. So, we juggle gangs from different places. Gangs come and go at different times of the year, depending on their festival or harvest seasons.

Thus, thekedars and construction companies are constantly 'rotating' (a term one hears often) their sources of labour supply to ensure they have sufficient numbers of workers on site at any given time.

This complex and fluid scenario is a key characteristic of construction labour contracting, making it a space that is difficult to govern from the perspective of the state as well as capital. When we asked 'Ernesto', site manager for a small, luxury real estate developer, how they keep track of the continuous flow of workers into and out of the project site, he responded with a laugh, It's very messy. Suppose you need 200 people to complete this project, through the project life cycle 3000 people would have come and gone. Already 600 to 700 people have come and gone on this site.' The fluidity of the labour force is both a cause and an effect of the contracting system: it allows companies to source labour on a 'just-in-time' basis and to avoid hiring permanent workers, but it is also adapted to (and exploits) the needs or constraints of many workers for whom construction labour is a part-time job.

In this section, we describe the labour contracting system in the construction industry in some detail, based on our field research. The concept of an inverted supply chain (Sargent 2018) captures the organisation of large construction sites that we observed, which is characterised by a constant cycling in and out of 'gangs' of workers with different skill profiles in accordance with the stage of construction. This labour is supplied almost entirely by thekedars, who are also responsible for managing the workers and their work on site (discussed in the next main section). As in 'supply chain capitalism' (Tsing 2013) generally, the dispersal of production across independent contractors means that the lead firm is not only unconcerned with the conditions under which production takes place but is often actively ignorant of these conditions (Barrientos 2013). By 'actively obscuring labor processes, the supply chain creates capitalist value through, rather than in opposition to, heterogeneous modes of labor' (Sargent 2018: 153-54). Our fieldwork findings illustrate and expand on this understanding of value production in the labour supply system of the construction industry.

#### 2.1 LABOUR CONTRACTING SYSTEM IN THE CONSTRUCTION INDUSTRY

Real estate companies initiate projects by assembling land, raising finance, and creating the design, and they handle key functions such as marketing. But the actual construction is usually sub-contracted to one or several construction companies that have the technical expertise, equipment and capital to undertake large projects. Public sector projects, such as the Bengaluru metro rail, similarly sub-contract most of the work to construction companies, which submit bids in response to tenders. On large projects, most contracts are captured by major players such as L&T, SPCL and HCC. These companies in turn execute the work by recruiting labour through labour contractors or thekedars.<sup>1</sup>

Various kinds of skilled workers are required on construction sites, and most thekedars specialise in supplying workers of just one skill category—such as carpentry, masonry, bar-bending, or unskilled labour (utilised for tasks such as carrying material and cleaning). This means that companies must engage different labour contractors throughout the project cycle to source the skills they require at each stage of construction. For example, during the structural phase, large numbers of bar-benders, masons and carpenters (for the form work) are needed, while during the finishing stage skilled workers such as painters, plumbers, electricians, and interior carpenters are required in smaller numbers. A site manager working with a major construction company explained, We engage a combination of contractors depending on our requirements and what they can supply.' According to him, some big thekedars supply workers with different skills, but all the thekedars we interviewed specialise in one skill. Specialised work, especially at the finishing stage (such as plumbing, tilework or waterproofing) is often sub-contracted to smaller professional companies that employ their own skilled workmen, but which may also hire additional workers through labour contractors.

The scale of operations of labour contractors broadly accords with that of the companies with which they work: very large companies such as L&T and SPCL engage only contractors who can bring at least 300 workers for a job, while smaller companies work with contractors that can mobilise just 30 to 50 workers (a scale at which large thekedars will not work). Bigger thekedars may handle contracts simultaneously at several sites, while companies usually utilise several thekedars for each skill category to ensure a continuous supply of labour. Reflecting these variations, the thekedars interviewed for this project ranged from very large ones capable of mobilising even 500 workers at a time and deploying them across multiple cities and sites, to very small contractors who would bring gangs of just 10 to 20 workers to a single construction site.

Thus, the labour contracting 'system' is multi-layered and complex, and completing a construction project may involve several levels of sub-contracting and different types of contracts, which are coordinated by key departments of the construction company such as project planning, project management, finance, and so on. In this section, we describe the organisation of construction projects in some detail because it is necessary to understand the labour contracting system, track the production of surplus value, and uncover the intersections of 'formal' and 'informal' processes and structures within the construction industry. Because of this complex sub-contracting system, construction sites

In Bengaluru, several real estate companies also carry out some of the construction work for their projects inhouse. But even these organisations engage sub-contractors to source additional labour or for specialised jobs such as waterproofing or electrical installation.

are characterised by nested contracting relationships and constantly rotating workforces, requiring intricate coordination of 'multiple actors across multiple levels' (Sargent 2018: 156). Beneath the visible domain of organisational charts, building plans, manpower projects, and calculations of work orders lies a much more opaque, 'messy', and fluid system of labour mobilisation and deployment (Sargent 2018: 156–57).

Although the contracting system is more complex than the list below suggests, in this report we focus on these key actors or nodes in the labour contracting chain:

- 1) principal contracting company: the real estate developer or public sector organisation executing and financing the project;
- 2) main contractor: the construction company (or companies) engaged to execute the project, focusing on its key managers and employees such as project and site managers, site engineers;
- 3) labour contractors, their agents, and other labour market intermediaries
- 4) construction workers

In the following sub-sections, we discuss each of these categories and their relations with other actors in the contracting chain. We also trace the stages of recruitment and deployment of construction labour and evaluate the ways in which value is extracted at each point in the chain. In subsequent sections, we elaborate on other ways in which the organisation of the construction process depends upon and reproduces the informality of labour control and management.

#### 2.2 Parsing the Labour Contract

Labour is mobilised for construction projects based on the project timeline. The project plan is finalised after a construction company (known as the 'main sub-contractor') is awarded the contract by the principal (e.g., a real estate company such as Prestige, or a public entity such as Bengaluru Metro Rail Corporation Limited, or BMRCL). The client and the main contractor together create a timeline for the project, which includes a 'finish-by date' as well as completion dates for each stage of construction. The manpower planning team then extrapolates from this schedule to make projections for labour and skill requirements, based on the kind and magnitude of the work required in each stage. For example, form work requires bar benders, carpenters, concrete workers, unskilled helpers and housekeeping staff, while for finishing work skilled workers such as electricians, plumbers and painters are needed. The manpower requirements are estimated on the basis of industry (or company) standards that designate, for each trade, the average amount of work that can be done in a given timeframe. Based on these calculations, the planners project how many workers of each skill category are required for each stage of construction and create the overall labour cost estimates for the project. These manpower projections are then used to plan labour recruitment. This is a 'rolling process' that is constantly adjusted in accordance with the progress of the project.

Before awarding contracts to thekedars (called 'vendors') and initiating the 'onboarding of vendors', the construction company's estimation team creates a rate card for various jobs based on prevailing industry wage rates, material costs, and so on. Another team looks at these rates and the overall budget for the project to create a rate ceiling for each job (a level beyond which the company will not pay).

After this, the company calls for quotations for specified jobs, against which potential vendors submit their quotations. Thekedars who are successful in their bids are issued work orders (which are not legally binding contracts), detailing the type and scope of work to be completed within a specified time period, the total amount to be paid upon completion, and other details such as wage rates and number of workers to be employed.

There are basically two types of work order in the construction industry: 'measurement basis' contracts (in which payments are calculated on the basis of area or weight (e.g., cubic yards of work done or metric tonnes of material used), and 'supply basis' contracts that are based on man-days or labour time. Man-day work orders are issued mainly for unskilled labour supply, while most other jobs—such as formwork, pouring concrete, and barbending—are contracted on 'measurement basis', that is, based on the quantities of material used in the job (for instance, metric tonnes of rebar, square metres of shuttering or masonry).

The widespread use of 'measurement basis', or piece-rate, contracts in the industry is central to understanding how surplus value is produced and sequestered. While workers are almost always paid a daily wage (payments are calculated on a weekly or monthly basis, including overtime and adjusting for advance and 'kharchi' payments), work orders are based on the quantum of work to be completed (measured in feet, metric tonnes, etc). In preparing a quotation in response to a tender, the thekedar estimates how many man-days are required to complete the specified work while leaving him a fair margin—a calculation that is subject to various risks but also provides scope for manipulation and manoeuvre. This introduces a layer of complexity in calculating labour contractors' profit margins, as we discuss further below.

#### 2.3 THEKEDARS AND CONSTRUCTION COMPANIES

The reliance of 'organised sector' construction companies on labour contractors allows them to largely distance themselves from the business of mobilising and even managing labour, which remains firmly within the domain of labour informality. The relationship between construction companies (represented mainly by project managers, site managers and site engineers) and labour contractors thus constitutes the crucial link in the value chain that mediates between the informal labour contracting system and the formal processes and statutory requirements that constrain the industry. But these categories are not neatly separated: multiple negotiations and frictions mark the notional boundary between organised and unorganised economic activities in the construction sector. Indeed, the reproduction of labour informality within an industry that has increasingly become more consolidated and corporatised, we argue, is key to the generation of value in construction projects. For this reason, it is useful to examine in some detail the processes through which labour contracts are awarded and how they are negotiated and structured.

The process of mobilising labour for a construction project is initiated a few months prior to the date they are required on site, because it can take several months to recruit workers. A site manager explained the process:

There is a flow to the recruitment process. The planning team relays the manpower projections to the project in-charge, who then starts mobilisation according to the project timeline. We also have a Labour Resources Department that is responsible for mobilisation, but the line managers have their own contacts and directly talk to contractors to get workers.

This narrative points to a striking finding of our fieldwork—the key role of site engineers (SEs), site managers (SMs), project managers (PMs), project engineers (PEs) and other executives employed by construction companies in cultivating and sustaining relationships with thekedars to ensure a steady supply of labour. Most construction company representatives we interviewed stated that they rely on networks of contractors that they have developed over the course of their careers to fulfil their labour requirements. Higher-level managers, such as vice-presidents (VPs), divisional managers and senior project managers, cultivate relationships with big contractors, who may move with them between projects or even between companies (if they change jobs). While senior managers may have direct relationships with big thekedars, construction companies also maintain databases of thekedars who can be contacted as required—rosters that are constantly rotating. Several companies also have in-house teams tasked with mobilising skilled workers for particular jobs, but most project and site managers utilise contacts they have developed through their work experience, calling upon contractors whom they know and trust. (Not surprisingly, allegations of kickbacks and other forms of corruption at this level abound in the industry.)

'Sanjay', vice-president of a medium-size construction company, explained that although they have regular sub-contractors who have worked with them for over ten years and have been 'trained' by them, they are also constantly 'onboarding' new contractors according to their requirements. However, they prefer to stay with the same contractors because

... if they are working with us for a few years, we have trust, so we are willing to give advance for various purposes. With new contractors we can't do that. But we do engage new people, it's based on the project. We know the capacity of each sub-contractor, so according to our needs we engage them. If our existing ones don't have the capacity for the work we have, we get new ones. But when bringing new contractors, we don't give a contract immediately—they work for one month, we see how they work, then we give the contract. After they work with us for a while, we will give them advances and so on.

To our query about how they identify new contractors, he responded, 'See, all the staff have experience in other companies—the PM, PEs—they have references. They are responsible for the project, so if they need more labour, they will ask those other contractors.'

Large companies also have HR (human resources) departments that are responsible for recruiting labour and also for managing payroll and other employment-related processes, but they still depend on site managers to get the right workers. Ernesto explained:

The HR guys bring people, but the problem is they don't know the exact skill set required, so they won't bring the right people. It's only the engineers who know what is required. For HR it's all about numbers. If they are told to get 50 carpenters, they will get 50, but out of them just 10 or 15 would actually be carpenters. [Then why do they have an HR department?] They handle getting unskilled people. Also, they have to maintain the database to ensure that PF [provident fund] payments are made, and so on. Although they don't handle payroll for workers, they have to get the PF numbers of the workers and ensure that the deposits are made in their accounts.

A senior executive of a reputed large company explained that they have a database of 100 to 200 'captive' subcontractors who have worked with them for years, but they also look out for new labour suppliers as needed. We look for guys who can marshall a lot of workers, at least 150. But the most important quality is that they should be reliable.' He emphasised that they value 'loyalty' in their contractors. PMs [project managers] are the guys who cultivate contractors. They do this by giving good facilities, sometimes they give them advance payment. Sub-contractor management is a key role for PMs'.

The delicacy of the relationship between thekedars and managers, and the subtle negotiating skills required to maintain it, are illustrated in the following narrative from 'Surya', a masonry contractor who had been working for a long time with one of the largest construction companies:

[Have you ever lost jobs?] Yes, it has happened to me, I left this company many times. Our boss felt they didn't need me, so I worked for other companies. When they needed me again, they reached out, but I directly told them that I don't feel comfortable with you. I said, you don't value people when they are around you. Then the GM level officers understood. I told them about my problems. I said I would support you whenever needed, I worked for you day and night. But now your men are not treating me well. So, the GM told the site manager to increase my rate at any cost by say 20 percent.

Such negotiations involving various actors usually occur for large measurement basis contracts, while the process of recruiting small gangs of workers appears to be more informal—a site manager may simply call thekedars known to him to request them to bring workers. For smaller jobs (for example, below 10 lakh rupees), site managers may be authorised to issue work orders, whereas large contracts (especially with specialised sub-contractors) are handled by the project management team at the head office. Conversely, while big contractors may deal with 'GM [general manager] level' people at the head office, at the level of the construction site it is the site manager who is the key point of contact. Site managers may directly contact known thekedars when workers are required on a project and negotiate work orders. (Smaller contracts can be finalized by site managers, while bigger work orders must go through the head office for negotiation and approval.)

Construction companies maintain internal lists of approved rates for each type of job, indicating the maximum they can pay. Two or three rounds of negotiation about rates may take place between potential vendors and the implementation team, before a vendor is selected and the work order is finalised at a rate agreeable to both parties. A project manager explained:

When labour contractors come to us, we tell them our rate, and we make sure that the rate settled with him is below the approved rate. Once settled, we inform the contracts department ... But if the approved rate has not changed for years, we may ask our team to reconsider it. Then the estimation team will sit with the central project team and get approval for the new rates. Once I approve the contract from my side, the central project team is the main authority. Most of the time we try to handle all this at the site level, but for big contracts that cost above 10 lakhs, the contracts team gets involved.

However, thekedars spoke about this process differently, implying that they have no choice but to accept the rates offered. Satish said, 'Vo bhi bol dega ki hamara ye rate hai aur aap ko karna hai' [they will say this is their rate and I have to settle on that rate]. But he also remarked that rates are not an issue for him since he works on measurement basis, for which there are fixed rates. But then he acknowledged that rates can be negotiated: 'Haan, uske live to bolna padta hai, kyonki hamara payment nahi nikal raha hai to uske liye ladna jhagadna padta hai' [Yes, for that we have to speak up. If I am not able to make profit out of it, I have to fight for that]. In that case, 'fir manage karta hai dono milkar' [then we both 'manage' the rates together].

A site manager contended that a work order cannot be renegotiated in the middle of the job: We agree on the terms in advance, and so there can be no disputes. But Surva, contradicted this statement. He explained how the rates are decided:

We have to pay our workers 550 rupees per day, and 800-900/ day for a mason, according to their experience. Before taking the work order, I visit the site and see the kind of work I am going to get, to see whether I will manage to get a good margin. If I think that there are chances of loss in the work order, I can tell the sahib [boss] after three months to change it. DGM sahab will tell PM sahab and then PM sahab will tell ACM [Assistant Construction Manager] to see how many workers are involved in such and such square metres of work and how much payment we deserve. Then according to that, they make a new work, order.'2

Both managers and engineers deploy their networks of contractors as valuable currency while moving from project to project, site to site, or even between companies. The site manager on a small, upscale construction project elaborated on the importance of developing relations of 'trust' with labour contractors:

At the end of the day, the project manager can only control the project if he has control over the people—if he has people who listen to him. So, the manager is given utmost importance, and he has the freedom to select thekedars; it's become his responsibility.

He explained that there may not even be a written contract, 'it's based on trust. So, for them to take that risk, the thekedars have to know the engineers, otherwise why will they come and work? To illustrate this point, he related a story about calling a thekedar he knew from a previous job when he was short of barbenders: Hecame and saw the work, then he agreed to supply workers. So, it all works through the contacts you develop?

According to a senior industry executive, engineers are constantly on the lookout for labour, and they might even 'poach' workers from other sites by offering more money. 'In a market where you require 1000 people and get only 750, there is rotation—workers move from job site to job site. Because of shortage of labour, projects are always running behind'. In this scenario, a key selling point of civil engineers in the job market is the

However, it appears that this story was not about renegotiating an existing work order but changing the rates for a new one. Work orders are often short-term, broken up into separate jobs of two or three months each although the work is continuous. This means that the terms could be changed each time a new order is issued. A senior manager explained that to streamline the process of clearing bills, they generally issue work orders every two months, even for the same job and contractor, rather than giving one large order for the entire job.

database of thekedars they maintain in their phones. Site engineers and managers maintain extensive lists of names and phone numbers of thekedars who they can call on as needed:

From working here, I would come to know an additional four or five contractors, who I would definitely use also in future for some other projects. Wherever I go in India I will be needing these people. So, it becomes part of my portfolio, to develop relationships with these guys. If I search my phone for 'carpenter' I will get at least 50 names.

When we asked whether he would share his contacts with other managers or engineers, he responded in the negative, explaining with an example:

A colleague of mine was working as a project manager and needed workers, so I sent a guy to him. But that project collapsed, he was at a loss and so was the thekedar. So, if I put a gang on a project, my name gets spoiled if something goes wrong, not only for him but also his circle [the thekedar's contacts]. So, I would share contacts only with someone very trusted.

Upon probing, he explained that such situations can arise because even though he trusts the *thekedar*, his source of workers is not constant:

The workers come from his village and villages around—they are always different guys—so it can happen that the people he got are not as good as he expected. [He can't guarantee what kind of workers he will get?] No... [So, these guys never have a permanent team?] No, for six months they may have 60 people, next six months they only have 30.

Just as managers and engineers of construction companies cultivate relationships with labour contractors, thekedars must also forge and nurture relationships of trust with company personnel to get work orders. In interviews, many thekedars confirmed that the vitality of their relationship with site engineers and project managers is crucial to getting contracts and keeping their businesses running. Labour contractors develop relationships with engineers by working on projects, where they may also learn about other potential jobs informally through their interactions with construction company employees. In some cases, the relationship between an engineer / manager and a thekedar was more durable than the thekedar's relationship with the company. In other instances, we found that the thekedar's relationship with the company was stronger than with individual engineers. In addition, construction company executives deploy their own networks to identify reliable contractors and source labour. 'Manu', a shuttering contractor, recounted his experience with several companies:

I got cheated in many companies—in some companies 4 to 5 lakh rupee dues were pending for a long time. Only after talking to the MDs could I get the money. But I decided never to work for those companies again. [So how did you find new jobs?], I was working at XYZ Corporation from 2013, where I completed five projects. Their quality is very nice. Through the company CEO I got to know about the job. They told me that this company listens to you and they do quality work. Similarly, I came to this company because my MD talked to their MD.

The principal company may intervene in labour contracts when there is a major issue with the construction contractor. For example, when BMRCL (the public company in charge of the Bengaluru metro rail project) decided to terminate its contract with the company that had been awarded the tender for one site, BMRCL engineers requested their labour contractors to continue along with their workers, and the new sub-contracting company appointed by BMRCL issued fresh work orders to the same thekedars.

Like market intermediaries in general, thekedars are skilled at building and sustaining relationships both with managers/ engineers employed by construction companies and with workers (see following section). Thekedars in need of work may approach their contacts in construction companies to enquire about opportunities, but often they are contacted by managers or engineers about potential jobs. After receiving a call, the thekedar will visit the head office or the construction site, discuss the work and the rates with them, and if satisfied, sign the work order.

A masonry contractor who has worked with one of the largest Indian construction companies for many years narrated his perspective on this relationship:

If the project manager likes our work, they ask us to stay with them at any cost. They offer to give us money even if there is no work or they will provide us with some small work to tide us over. So, if this is the kind of relationship we have, why would I leave? [Under what circumstances might you shift to another company?] We see the rate, and if we are facing losses for months, we will tell the manager. If the manager takes action we stay, but if he's not doing anything it means they don't want to support us, so we leave.

While several thekedars interviewed expressed satisfaction with the companies and managers they were working with, we also gathered stories of companies that had 'cheated' contractors by not paying them, which put them in a difficult position since they were unable to pay their workers. When asked, thekedars readily articulated their views on the reputations of various companies and why they preferred one over another:

If I analyse it, I like the 'XYKP' working style. Other companies are frauds. 'KT' are also thieves, they cut 5% extra charge. 'LHF' are also a super fraud company. They can't even pay the TDS money to the government.

A contractor may even file a lawsuit against the company if the amount owed is very high, but this involves additional costs. 'Abdul', a large contractor who supplies unskilled workers from West Bengal, said that even if the company eventually agrees to settle for a certain amount, he has to pay not only his lawyer's fees but also his travel and accommodation expenses.

Sustaining a productive relationship with construction company managers and employees, which is marked by mutual dependence, depends upon maintaining amicable terms. But cultivating the patronage and good will of site managers and engineers also requires a certain level of performance. For instance, Anand lives with his workers on the site, drives a two-wheeler in Bengaluru, and avoids wearing branded clothes to avoid provoking the jealousy of engineers (who earn much less than he does, despite being educated and formally employed): 'Bahut kuch chupana padta hai [we have to hide a lot of things]'. Although he owns property worth 3 to 4 crore rupees in his village, he can't tell the engineers about this. My site manager knows that I am making 5 lakhs a month from this site, but still, I can't show it off? Alok then shows a picture of a big house with a car parked outside, saying 'this is Anand's home [in the village]'. Anand exclaimed, 'My neighbours won't believe where I am staying in Bangalore. Alok asked me to shift to a flat in Bangalore, but it's better to stay with the workers only.'

Cultivating these relationships, which are marked by asymmetry as well as reciprocity, requires building trust and confidence on both sides. Contractors depend on project managers and site managers to dispense work orders and approve bills, but managers must also maintain good relations with thekedars if they want the work to be completed smoothly. The site manager is responsible for ensuring the completion of targets, which depends upon an adequate and timely supply of both materials and labour. Thus, to ensure the smooth flow of workers to the site, the site manager must know how to interact effectively with thekedars. The need to foster 'trust' between men who are otherwise sharply divided by boundaries of social class and other differentiators opens up substantial space for manoeuvre around the terms of engagement, payments, or other conditions of the contract.

In summary, while some companies maintain fairly stable rosters of contractors and there are contractors who work only with the same company over long periods of time, overall, these relationships are rather fluid: they may be forged or broken depending on the market situation, financial or social circumstances, a thekedar's capacity to perform his role effectively, and many other factors. For this reason, project managers and site engineers maintain relationships with numerous thekedars who can be called upon as needed, and they sustain their goodwill by giving concessions such as advance payments or higher rates.

However, the fluidity of the labour supply system has introduced a level of uncertainty into the recruitment of workers and the management of projects. For example, we observed that site managers or thekedars may suddenly shift workers from one construction site to another to fill an urgent demand for labour. Such accommodations are facilitated by social networks among site engineers as well as among labour contractors, who may help one another out in case of a sudden labour shortage.

The uncertainty of labour supply has been exacerbated by the erosion of the patronage relation between thekedars and workers. According to several site engineers, because the composition of their gangs keeps changing, they cannot depend on thekedars—even those they have known for years—to supply enough workers with the required skill levels or reliability. As we discuss below, now there is little to tie workers to a particular thekedar.

In the next section, we turn to the sourcing and mobilisation of construction labour, a process that similarly requires the cultivation of trust or relations of interdependence between thekedars and workers. This relationship is similarly variable, unstable and fluid, but it is marked by a different power dynamic compared to the relations between contractors and construction company employees outlined in this section.

## 2.4 Mobilising Labour

The second key link in the labour contracting chain is the relationship between the thekedar and his workers—a connection that may be mediated by other intermediaries such as recruitment agents. In this section, we unpack this end of the value chain, starting with an overview of the labour mobilisation process.

Because of the lack of macro-level data that would allow us to map these migration streams concretely or comprehensively, we relied on tracing contracting chains backwards from the Bengaluru construction sites we studied, through thekedars, to the source regions. But we did not discover a single pattern or type of labour mobility in this sector. Instead, the labour supply chains we could trace seem to have emerged and gotten consolidated in diverse ways across different regions, and they are marked by varying modalities of recruitment. Rather than detailing all this diversity, here we present a generalised summary of the process of labour mobilisation based on interviews with thekedars in Bengaluru and in source regions in Bihar and Jharkhand, noting important differences where relevant.

Thekedars tend to source workers from the same region over long periods of time. Usually, they recruit labour from their own districts and states of origin, reflecting the deep social connections needed to recruit labour, but this is not always the case. In contrast to older migration streams in other sectors (for instance, mines, industries and plantations), which have remained fairly stable geographically over several decades, the pattern of labour migration in the construction sector is more unstable and variable, with pathways and contracting chains shifting and ramifying in various directions. In part, this malleability can be attributed to the fact that the relationships that constitute these networks are unstable, at every level. For example, workers may find jobs with the same thekedar over several years, but others frequently change contractors—even from job to job. Workers' life and employment histories show that they rarely return to the same construction site or even the same city. Instead, each contract sends them to a new place, sometimes with the same thekedar but often with a different one.

Thekedars told us that they usually mobilise more labour than required for a job because some workers may not show up. For measurement basis contracts, they recruit at least 10 percent more labour than that specified in the work order, and they may do the same even for manpower supply contracts. In some cases, recruitment for a new project may only involve moving workers from one site in the city to another, but more often they mobilise workers from their home regions.

After a thekedar receives a work order he starts the process of recruitment. The initial stage of mobilisation includes visits to the source region by the thekedar or his agent(s). Typically, thekedars recruit workers from their own villages and adjacent areas, where they have extensive social connections based on place, caste and kinship. Even when they have no project in hand, they may make periodic trips to the source villages, visiting past or potential workers and their families to inform them about the prospects of employment. A thekedar described these trips as an 'annual ritual' that is essential to sustain his connections with the sources of labour. Abdul believes that his annual trips to the villages from which he recruits workers goes a long way in building trust: 'I go and show my face, tell them where I am from, show them my house in Bangalore and give them my address, so that they know this is not some random person who has come to take their boys away. It is important that they know if there is some problem tomorrow, they can come to my house?

However, several contractors said that they no longer need to visit the villages since they have built good relationships with their workers:

I don't go to bring the workers, I just ask them to send their Aadhaar details so I can book their tickets. Ten years ago, I used to go to the village, now I just contact them over phone when there is work. I am myself from that village, I don't have any agent there.

A masonry contractor from Bihar, who has built a big business as well as a four-storied house in Bengaluru, explained: 'My workers come on the basis of credit [using the English word 'credit' while speaking in Hindi, meaning reputation]. Like in my home district I have good credit because people know my work." Building good 'credit' or reputation can be done in many ways. However, a key part of this process is establishing relationships of trust:

If I get good credit, everything will be easier because of my phone. You can even call London and get your work done. (...) If you make good relationships, you develop a strong group and by making good friendships with each other you make good bonding.

The extension of village and kinship obligations to workers' families was given by several thekedars as a reason for offering cash advances. This practice is integral to the process of building 'credit':

If the workers have come here [to the construction site], we have to pay them some money so that they can run their houses. They are the breadwinners of their families. So, if they are here it is only we who have to take care of their families. And if we have paid 20,000 to 30,000 in advance, we cannot just cut it [from their wages] in one go, we have to do it in parts. They also accept this. That's how we make good credit.



Figure 2.1. View of a thekedar's village in Bihar



Figure 2.2. Village home of a thekedar in Bihar

Thekedars build the trust of potential workers by visiting their homes and interacting with their parents or spouses, a process that they described as 'convincing the worker and the family'. Strategies deployed by contractors to foster a sense of familiarity and create trust include sharing details about his background, family and village with workers' families, dining with workers' families, or attending informal gatherings such as parties with prospective workers. Thekedars may visit workers' villages during holiday seasons to participate in their festivals or distribute small gifts to their relatives to build relationships.

A striking feature of this long-distance, short-term construction labour contracting is that payment of cash advance on wages to mobilise workers is not the norm amongst the thekedars we interviewed. In contrast to most studies of labour contracting, which highlight the importance of advance payments or loans as a means of 'bonding' workers to the thekedar, our interlocutors explained that they give advance only to workers they know and who have worked for them in the past—especially those who had been with them for several years—but would rarely provide advance to a new worker. However, they might give an advance to a new worker from their own village or home area whose family is known to him, because in that case the worker 'cannot run away with the money'. Manu explained:

I do not give advance to workers joining me for the first time. But I am so experienced that I can tell about a person at first sight. I trust my supervisors—if they tell me that a worker genuinely needs an advance, then I pay. If a worker is working with me, I have to take care of their families.

However, several contractors indicated that they make risky investments to develop trust with workers, for instance by giving cash advances even when they are not certain of repayment. 'Dev', for instance, pays workers even when they leave his employment, trusting that they will come and pay him back the money: Bharosa jatana padta hai [we have to trust them]. If they have been working for me for the past five to ten years, it is okay to give them 15,000 or 20,000 as advance."

While there are no standard rates for these advances, several interlocutors mentioned one month's wages as a typical amount (a figure often quoted was 15,000 rupees, but workers can earn as much as 40,000 rupees a month, depending on the skill and overtime). The longevity and strength of the relationship between thekedar and worker is a crucial determinant of the advance amount. Both the amount of

advance and the repayment schedule are subject to bargaining during the process of recruitment—a negotiation in which the thekedar does not necessarily have the upper hand. This is another indication of a weakening of the asymmetrical patronage relationship between worker and thekedar, at least in the domain of construction labour.

We identified several variations in the mobilisation process, which seem to be related to the scale and span of the contractor's operations. Many thekedars we interviewed rely upon family members living in the area to recruit workers, or they may sub-contract this work to local agents. When mobilising workers from his home region, this intermediary is known as his local agent—'humara aadmi [our man]'. Typically, the agent is a male relative such as his father or brother. Most thekedars seemed to trust only relatives or friends—'jo humare close hain [those who are close to me]'—to perform this role.

In contrast, thekedars who mobilise workers from states or regions other than their own often cultivate more business-like relationships with a local intermediary (who is not related to him) known as 'guarantor' or dalal [agent]. Their compensation varies between commissions, lump sum payments, and gifts. However, not all thekedars engage such agents, since this relationship too depends on trust: I do not have anyone helping me recruit workers, because they may lie to me or cheat the workers, so I don't ask others. I will take care of my workers, I don't want to take on others' tension.'

Local actors who help to recruit workers constitute one of the versatile links in labour contracting chains, performing a variety of functions for the thekedar. In addition to gathering information about potential workers, recruiting them and preparing them to travel to the city, these agents may be tasked with compiling the necessary documents, such as Aadhaar cards (issued under the Unique Identification or UID scheme) and bank account details, and carrying out administrative tasks such as obtaining medical or fitness certificates (if required by the contracting company). The agents send these documents to the thekedar, who must submit them to the contracting company before bringing the workers to the site. Local agents also make the travel arrangements for the workers, including buying their tickets and food for the journey, and they usually travel with the gang of workers to avoid potential desertion or 'poaching'.

The larger the contractor's business, the more agents he will engage. A very big thekedar who mobilises unskilled labour from West Bengal, Bihar and Jharkhand explained:

I have about 25 agents in the villages who bring workers to the city. Most of these agents are dependent on agriculture, many of them are sharecroppers. They do this work in their free time. I pay them 1000 rupees per worker. Their job is to visit the workers' houses, tell them about the work and everything, and once they agree, to bring them to the city on the train. Once they reach here, they are picked up at the station by my supervisor. The entire process, right from the identification of workers to bringing them here, is their responsibility. I pay for the tickets and other travel expenses only after they arrive. If a worker goes back home after working for a few months, I have to again pay the agent to bring the worker back.

During the journey, the agent acts as the thekedar's 'unofficial HR' person, as an industry veteran called him:

Big contractors won't be there on the train, but their guys will be there. Their job is to go, source people for him, and bring them to the site. Usually, this unofficial HR guy will be his maama [uncle], his cousin-brother, his wife's relative, and so on. His job is only to get people, bring them here, drop them.

According to this interlocutor, the train is where agents and workers make new contacts. The long journey provides ample opportunity to meet other agents, workers, and gang leaders, and to exchange phone numbers and gather useful information about rates, job sites, demand for skills, and so on.

Once back home, the guarantor or agent serves as the thekedar's representative in the village: he is responsible for taking care of the workers' families in case of emergency and often for carrying out work that male household heads typically perform, such as going to the panchayat office to submit applications for welfare schemes. Due to the continuous nature of this role, thekedars are willing to pay local agents for their expenses even if their efforts at recruitment are unsuccessful. But the second category of (unrelated) local agents only recruit gangs on an ad hoc basis, because they have no prior social relationship with the thekedar.



Figure 2.3. Labour mobilizer's house under construction, Iharkhand

#### 2.5 DEPLOYMENT OF LABOUR ON CONSTRUCTION SITES

Once workers arrive in Bengaluru, they are transported to the construction site. Workers generally operate in gangs managed by supervisors that are employed by their thekedars for this purpose. On large-scale construction sites, workers of a gang usually live together in labour colonies or camps along with their supervisor(s). Thekedars rarely live on the site with workers, but they rely on frequent visits and communication with their supervisors to ensure smooth functioning of the team and timely completion of the work assigned. Workers rarely communicate with anyone other than their fellow gang members or supervisors. Gangs may be shifted to other sites along with their supervisors, rather

than as individuals, since the day-to-day work relationships rely on familiarity and established patterns of communication.



Figure 2.4. Labour camp at a construction site, Bengaluru

Thekedars variously employ supervisors, 'munshis' (accountants), and foremen to manage their workers and the work process on site.3 These agents, who are the thekedar's trusted lieutenants, are constantly present on site to manage their workers. They play a key role in looking after their workers and coordinating their work with the site engineers (discussed in the next main section). Supervisors typically belong to the same village as the thekedar, and several supervisors we interviewed had worked their way up from the status of worker. Supervisors are paid slightly more than workers, and generally they receive a monthly salary rather than a daily wage. They may also take up the responsibility of mobilising labour for the thekedar. Such extra services are compensated in cash, kind (for instance, air tickets to go home, gifts for the family, surprise leave for festivals), or occasionally on commission basis. Although the roster of workers under a thekedar keeps changing, supervisors tend to work for longer periods of time with the same contractor.

To perform their role effectively, we were told, a supervisor should have 'acchha vyawahar [good behavior or demeanor]'—an ability to manage workers as well as maintain good relations with his thekedar and site engineers. Other (informal) qualities required of a supervisor include literacy, relevant work experience on construction sites, and the ability to understand the drawings and translate them into

The terms 'supervisor', 'munshi' and 'foreman' were often used interchangeably by many of our interlocutors, but these terms were also employed to denote different roles. Several spoke about the foreman as an individual assigned to work on site along with a gang of workers with a particular skill, to supervise their work and ensure that they complete their tasks. In contrast, the supervisor takes care of other requirements such as taking attendance and keeping accounts. But several thekedars we met engage a separate person, the munshi, to keep accounts while the supervisor manages the workers.

specific work tasks. Above all, a thekedar must be able to trust his supervisor because he is the main or sole channel of communication with workers. Big contractors may not talk to workers directly at all but instead depend on their supervisors and munshis to convey information or instructions, apart from keeping attendance logs and accounts. The attendance sheet, which is the crucial document for calculating payments to workers, could be easily manipulated by a supervisor. Several thekedars told us that they would not give advance to new workers unless the request is made by the supervisor, who in turn would have a relationship of trust with the worker.



Figure 2.5. Preparing food at a labour camp

The living arrangements of workers on large construction sites are usually divided along regional and linguistic lines, because the 'gangs' are homogenous in terms of place of origin. Most gangs come with a full-time cook appointed and paid by the thekedar, so ensure that they are given food that aligns with their regional or community preferences. The quality of the accommodation in labour camps varies greatly across sites—several companies have tied up with NGOs to standardise and improve worker housing and provide facilities for recreation, while other labour camps consist simply of temporary sheds made of sheet metal, with common areas for cooking, bathing and toilets. Groceries, or funds to purchase them, are supplied on a weekly basis by the thekedar and meals are cooked and served in the camp. We encountered one thekedar who ran his own provisions store, from where trucks would ply to labour camps across the city where he had deployed workers, distributing supplies every Sunday. Others reported spending their Sundays purchasing provisions for their gangs or delegating this task to their supervisors.



Figure 2.6. Insider a workers' dormitory

## THEKEDARS, SUPERVISORS AND WORKERS

In his study of a construction site in Delhi, Sargent's (2018) interlocutors often articulated the thekedarworker relationship through an 'idiom of familial care' that expressed the hierarchical yet reciprocal obligations that exist between a contractor and his workers. He emphasises the 'social obligations and networks that the labour relation evoked for workers and thekedar obligations that often went beyond the notion of market exchange embedded in the wage form' (2018: 72). While this description also applies to some extent to the thekedar - worker relationships that we observed, narratives of 'care' were less common. Elements of patronage do mark the relationships we documented, but they appear to be weaker and less stable than those described in the literature. Many workers reported that they have not stayed with the same thekedar for very long, suggesting a dilution of the patronage relationship. We found that workers easily switch to a new thekedar or site when offered more money, which is why thekedars are constantly on the look-out for new workers.

Our contention about the erosion of the social power of thekedars over their workers in this domain is supported by narratives of both thekedars and site engineers about worker desertion as well as poaching by other contractors. The consequences of desertion do not appear to be as severe as studies of debt bondage would suggest—several thekedars admitted that they have little recourse if a worker takes an advance and then does not show up or goes to work for another thekedar.

The changing power equation between contractor and workers was revealed in a worker's story about how he recovered the money owed to him by his old thekedar: he promised the contractor that he would bring four new workers to his site, then pocketed the advance and train fare he was given and disappeared on him! Similarly, when we asked 'Devesh', a successful carpentry contractor from West Bengal, whether any of his workers had also become contractors, he responded:

There are many. They also take my men! They say that they will pay 10 rupees more than me and the workers go with them. Now there is no honesty. Earlier a worker would stay with the same contractor as long as he stays at the same site. Only after he goes back to the village would he change the contractor. But now they leave in between.

As this story indicates, the distinction between worker and thekedar is also not clearcut. With experience, workers may become supervisors and supervisors may in turn become thekedars, while a thekedar may fall back into the ranks of workers if he suffers a 'loss'. (The career trajectories of thekedars are discussed further below.) Also, workers may double up as minor recruiting agents for their thekedars, bringing a few friends or relatives to the site while returning from a home visit, thus constituting another link in the contracting chain.

Key terms that pepper many interlocutors' narratives across the value chain include 'bharosa' (trust. faith, confidence), reputation ('naam') and 'communication' (often using the English words while speaking in Hindi). The relevance of these elements is heightened by the pervasive informality of the labour contracting system: the absence of written contracts or agreements, the fluidity that characterises the entire contracting chain, the rapidly rotating rosters of sites, engineers, thekedars, and gangs of workers, and the pervasiveness of 'risk' for every key actor. As the narratives cited above suggest, developing 'trust' and building reputation or 'credit' are important skills required by thekedars both to recruit and retain workers, as well as to win work orders from companies. Creating trust even within hierarchical relationships is also central to the management of workers on construction sites and control over the labour process, as we discuss in the next main section.

### 2.7 Discussion

Sargent (2018: 66) argues that relations of place, caste and kinship are mobilised to reinforce the informal contracts that characterise the relationship between thekedar and worker, especially through the circulation of money. These ties constitute the infrastructure for debt and credit relations, in which both workers and thekedars are bound by social obligations (2018: 68). He highlights the 'messy sociality of the employment relation that crosses and re-crosses neat boundaries between economic and other forms of social relation' (2018: 76):

The thekedar is a morally ambiguous figure precisely because he combines the economic self-interest and calculation of the contract with the non-market forms of domination and control over his subordinates. As such he occupies a crucial "hinge" or "translating" position in this political economy (Sargent 2018: 44).

Although most of the surplus value that is extracted from the labour of workers accrues to actors higher up in the value chain (construction and real estate companies), it is the labour contractor that is usually seen as the main agent of exploitation. This 'distancing of responsibility' (Sargent 2018: 49; cf. De Neve 2014) is advantageous for construction companies.

The fieldwork data presented in this section support these insights but also paint a more nuanced picture of the labour contractor as a mediating actor who must negotiate between the demands of 'organised' sector norms and requirements and the 'informal' relations that he must nurture both with workers (to bring them to work) and with managers and engineers (to obtain work orders and extract payments). This 'translating' role of the thekedar is hidden or discounted in dominant narratives in the construction industry about 'tradition' and 'exploitation', as corporate actors deny responsibility for low wages and precarious working conditions by casting blame onto labour contractors. Thekedars in turn articulate their own moral narratives about the corrupt managers and unethical companies with which they must deal.

In the next section, we explore in more detail the intricate negotiations and strategies of thekedars as they leverage relationships 'above' and 'below' them in the value chain to extract labour from their workers and exert control over the production process on construction sites.

# The Construction Labour Process

In this section, we present our findings on the organisation of large construction projects and the labour process on construction sites in Bengaluru. Most studies of labour contracting in India focus on how thekedars mobilise labour, with less attention given to their pivotal role in managing workers, and the production process itself, on construction sites. In the previous main section, we discussed the processes through which work orders are issued and workers are recruited by thekedars. In this section, we describe how workers and their labour are managed on large construction sites. We show how informality extends beyond employment conditions to include mechanisms of control over labour and the organisation of production itself.

Sargent (2018) is one of the few scholars to highlight the key role of labour contractors in the construction labour process, and we draw on his work here, exploring the key role of the thekedar (and his supervisors) in managing workers and the production process, building on the previous discussion of the relationship of thekedars with workers and with managers and engineers employed in construction companies. The specificities of the labour process on construction sites vary across companies and projects, and particularly in relation to the type and scale of the project. However, the following generalised description is broadly applicable to the construction sites we observed, and we note variations in practices where relevant.

# 3.1 Organisational control in large construction projects

After a project has been designed, the land acquired, permissions obtained, finance arranged, and the main sub-contractor (the construction company) appointed, the promoter (real estate company or public sector undertaking) appoints a team of engineers and architects to monitor the progress of the work and monitor its quality. However, this team is not involved in the day-to-day management of the project, which is the responsibility of the construction company implementing the project. This company organises a team to execute the plan, which includes a project manager, site managers, site engineers, supervisors, foremen, and other managerial and technical staff. The site manager and his engineers allocate work to various sub-contractors (including thekedars) according to the building plan and timeline, certify the work completed at each stage, and verify bills presented by the subconstractors against the work orders that have been issued.

In major construction projects, close coordination between the construction company's management team and sub-contractors (and their teams) is essential to ensure that work is carried out according to the plan and project deadlines are met. At the operational level, the site manager (SM) is responsible for communicating with thekedars regarding labour requirements and the work to be performed. Below

the SM, the construction process is overseen by site engineers, who are assigned to different parts or blocks of a project. Their number varies according to the scale of the project.

Thus, workers on construction sites can be divided into two main categories: (1) employees of the construction company (mainly managers and engineers) and (2) workers and staff under the control of thekedars and other sub-contractors. This creates a complex and sometimes fuzzy organisational structure. The site manager and engineers coordinate with supervisors in charge of gangs of workers about the work to be completed, provide feedback, and monitor progress, but they never communicate directly with workers and have no direct control over their labour. Thus, smooth coordination and clear communication amongst these various actors is key to the successful and timely completion of a project. Yet, construction company employees have no direct mechanisms for the management of workers, who are supervised by the thekedar's team and work according to the terms of their contracts. This means that beyond a point, the company's control over the labour process becomes weak.

The first step in a construction project, after creating the plans and timeline, is the procurement of materials and labour (as described in the previous section). Once these are in place the plan can be implemented, but here is where the managerial control of the contracting company and its engineers begins to get diluted. While site engineers or managers instruct the thekedars and their supervisors on the tasks to be carried out and check their work, the correct and timely completion of work depends on the ability of the supervisor/ foreman to make the workers work at the required level. Hence the relationship between the supervisor and his gang members, and between thekedar and supervisor, are crucial, as are the technologies of surveillance and control available to the site manager.

From this overview, we can begin to see how 'formal' and 'informal' practices and structures are intricately entangled, in multiple ways, in a construction project. For instance, the conversion of an architectural design into a detailed project plan is a technically sophisticated process involving various actors from the client and contracting companies. The plan is translated into more detailed manpower requirements, which are expressed as work orders to various contractors. At the site, planning is broken down even further by the site manager and his engineers into distinct phases and modules, each with their own set of tasks defined by detailed labour and material requirements and deadlines. In this entire process, thekedars play a crucial translational as well as organisational role (Sargent 2018: 36), converting the requirements of the project as conveyed by the engineers into discrete tasks that are allocated to gangs of workers.

In mediating between different components of the production process, the relationships and negotiations between thekedars (and their agents) and engineers / managers employed by the construction company are crucial. As described in the previous section, higher-level managers of construction companies often interface with labour contractors and make decisions about work orders (especially for larger ones), but it is the site manager and engineers who interact with thekedars and their supervisors or foremen on a daily basis to plan, manage and monitor the construction process. Importantly, site engineers never communicate directly with workers but must issue their instructions through the thekedar's supervisor or foreman. A top manager of a construction company confirmed: 'Our point of contact is with the sub-contractor. He brings the workers. The billing is done by the sub-contractor, who distributes the funds to the workers. Basically, he is our one-point contact with labour'.

The organisation of construction projects described above has important implications for understanding modalities of control over the labour process. The key instrument here is the work order, which details the type and amount of work to be completed within a specified time frame, defined in terms of mandays or a particular quantity of work ('measurement basis' contract). In negotiating the work order, the thekedar calculates the amount of labour he must employ to fulfil the contract while ensuring a decent margin for himself: the more work that can be accomplished within the given period, or condensed within a shorter period, the more profit he can make. But the allocation of tasks on a daily basis is not in his hands, since the work schedule is set by the construction company. In theory, it is the site manager and site engineers who decide on the work to be completed each day and week, while the supervisor/ foreman assigns tasks to the workers and coordinates and monitors their progress. In reality, there is much back-and-forth between site engineers and supervisors in planning and executing the work because there are always slippages and unforeseen circumstances to be managed.

This chain of control over the labour process, which links the plan (based on material measurements and timelines expressed in piece-rate contracts) with the sphere of actual labour (based on the wagerate and informal modalities of control over workers) creates points of tension and potential conflict as well as scope for negotiation by the thekedar to generate additional surplus value. Indeed, the channels of effective communication do not always align with the 'formal' chain of command. For example, our research assistant witnessed instances where workers would pointedly walk away from the worksite while the project manager was yelling at them and return only when requested by their supervisor. Thus, according to a site manager, the key to meeting targets is to engage thekedars (and therefore their supervisors) who 'listen to you'.



Figure 3.1. Workers on a construction site, Bengaluru

### 3.2 Managing and measuring output

A major responsibility of the site manager is to ensure that the plan is progressing on schedule, a task that is spoken about in terms of productivity. Yet, unlike in industrial workplaces, there seems to be no clear mechanism for measuring productivity on construction sites. Instead, managers use rough yardsticks to estimate how much work of a particular type can be completed within the given timeline with a certain number of workers. A site manager explained:

Of course, the actual work is done by the supervisor, but we [site managers] look at the overall progress and judge ... I have standards against which I can assess the work. For example, we have a target to complete so many tonnes of steel in one month. I know how many workers I would need to meet this target. I make calculations based on that and then judge whether they are working as per the standard with that number of workers. For example, if they have done only half the expected work after 20 days, then work is slow.

'Ahmed', a quality control engineer working with a small, high-end real estate developer, explained that contractors may enhance the productivity of a worker in measurement basis contracts, by offering him the wage for the full shift if he finishes a certain amount of work in a shorter time span. He also mentioned informal arrangements with the site engineer who may sign off on attendance for two shifts if a worker finishes a certain quantum of work in one shift, in exchange for a cut from the payment for the additional shift.

We try to get at least 70 percent productivity. For example, if a mason with one helper is supposed to complete one square metre of work in a certain amount of time, we check and measure their work accordingly. We make sure that they just don't sit idle all the time.

But in the same breath he admitted that there is no uniform method for determining how much work of a particular kind can be done in one day. The main difficulty faced by engineers in maximizing the output of workers, he explained, is the fact that labour is controlled by the thekedar / supervisor and not directly by them: 'There is no way to incentivise NMR [non-material requirement, i.e., daily-wage] labourers to do more work. Without any supervision, NMR workers will just sit idle'. Measurement basis contracts are easier to manage because 'our engineers don't have to see if the workers are working—the contractor himself will do that himself. The contractor will try to make his workers do the maximum, because his profit goes up or down according to the efficiency of his labour.'

This interlocutor expanded on the strategies employed by thekedars to encourage workers to increase their output. For instance, the contractor may tell a worker that if he completes 10 sq.mt. instead of 8 sq.mt. on a given day, he will pay him for two hours overtime even if he has only worked for eight hours. Another example concerned thekedars who work on piece-rate contracts but pay their workers on NMR basis, such as for plastering work (which is the norm). The thekedar may give targets to his workers and pay them when they are completed, regardless of whether the worker finishes the job in four hours or 12 hours—thereby motivating them to work faster. He also mentioned that site engineers may collaborate in such strategies, for example by signing off on a worker's attendance sheet to show that he had worked two shifts when the work had been finished in one shift. In exchange, the site engineer may take a cut of the additional payment claimed by the thekedar from the company for the overtime. (The opportunities for rent-seeking in construction projects through such collusion, which emanate from the interstices between 'formality' and 'informality' in the system, are legendary but beyond the scope of our research.)

Thus, site managers and engineers monitor the progress of a project, but they have little direct control over how work is carried out or at what pace. If they need to intervene to speed up production, their only avenue is to put pressure on the thekedar or his supervisor by threatening to cancel the work order. We asked a site manager what steps they might take if progress is too slow: I ask them to

work faster, to increase efficiency or increase working hours. If none of that is feasible, then we replace the contractor.' According to another manager: Delays are common in construction, and we have to somehow deal with it. If work is slow, we may add more contractors or we may ask the contractor to replace workmen who are not performing well? A senior executive of a construction firm confirmed that a work order might be cancelled for poor performance: 'The PM or site manager may give them 15 days to improve. If nothing changes, the company may reduce the contract by 50 percent or give the work to another contractor.' He stressed that even measurement basis contracts have deadlines and that the work must be completed within the given timeframe. But he also claimed that most thekedars can make up for gaps in production through overtime work. Since the work schedule is set on an eight-hour workday, they simply have to extend the overtime hours to catch up: In fact, workers want OT [overtime] because that is how they make money.'



Figure 3.2. Assigning work to a gang of unskilled workers

Once a thekedar completes a job, the locus of control over the labour process moves back up the value chain, as the work is checked and verified by site engineers, the site accountant, and QC (quality control) engineers. Site managers are responsible for certifying that what was specified in the work order has been completed so that the thekedar's bill can be approved and transmitted to the central accounts office for processing and release of payment. In the case of supply basis work orders (given in man-days), the engineers tally the bill submitted against the attendance record. Some companies have adopted facial recognition or other biometric technologies to keep attendance, which managers say is an improvement over the traditional system of taking signatures on a roster (which can be manipulated). But for measurement basis work orders, according to managers, the company does not even check the attendance sheet, since they are not concerned with 'whether you bring 10 or 20 workers to complete the job'. In such contracts, extracting more labour out of fewer workers enhances only the thekedar's profit margin.

As Sargent (2018: 158) argues, the documentation that is produced by engineers to verify that work has been completed depicts 'construction as an orderly exchange of quantities of built materials for amounts of money'. But the informal 'hazri system' (daily wage and kharchi, or weekly cash allowance payments based on the attendance sheet) of paying workers, combined with the piece-rate contract against which work is evaluated, provides flexibility and scope for maneuver, which in turn allow the thekedar to fulfil the terms of the contract while also satisfying the expectations and demands of his workers and retaining a decent margin for himself. Because the focus is on the completed product rather than on the productivity of the labour process itself, disparate forms of labour are collapsed into a 'unified production process ... that could be accounted for according to piece-rate forms of contract' (Sargent 2018: 153).1

#### 3.3 Supervisor as nodal actor in the labour process

In the construction labour process, the supervisor plays a crucial role in managing workers and the labour process. He is the key actor tasked with mediating between the site engineers and his workers, as well as between workers and their thekedar. The thekedar may visit the site often or only occasionally, but the supervisor must always be on site to take care of the workers and oversee their work. The supervisor coordinates with the site manager and site engineers, allocates tasks to the workers, and oversees their work to ensure that they are on schedule. Usually there is one supervisor for each gang of ten to twelve workers: if a thekedar has placed many workers on a site, he appoints additional supervisors (or foremen) to manage them. Supervisors are also usually responsible for taking attendance and submitting the rolls, based on which the munshi or thekedar calculate the payments to be made to workers. As a thekedar explained: 'My work is to handle money, while the supervisor has to handle the workers'.



Figure 3.3. Thekedar and supervisor doing accounts

Payments to workers are made in two ways—a lumpsum amount paid monthly, calculated from the contractor's 'hazri' [accounts] sheet where the number of shifts or hours worked is recorded, and the kharchi, which is given to workers on site every week in cash to cover sundry expenses. The kharchi, typically distributed by the supervisor on Sundays, is usually around 500 rupees, but the amount can vary depending on the needs or demands of the worker. The kharchi given is deducted from the regular payments over time, on a variable schedule. Wages are generally deposited on a monthly (or sometimes weekly) basis in the bank account number given by the worker, which may be his own account or that of a family member (often, his wife or father). Most thekedars we interviewed use UPI apps or online bank transfers to make these payments. The thekedar or his munshi (accountant) sends a screenshot of the payment made to workers once it is completed. It appears that workers rely on the contractor

Sargent (2019) also argues that these two forms of payment represent different 'moral economies of remuneration' or 'ideologies of labor' (Sargent 2021): the daily wage 'frames productive activity within a patronage relationship' while the piece-rate represents productive activity as the 'calculable completion of a contract' (2019: 196). These two modes of remuneration, and the essential translations and transitions between them, 'come into tension through the production process' (Sargent 2018: 37).

or his supervisor to keep track of their working hours and to calculate and make the correct payments, although they might also ask to see the hazri and the calculation of dues.

The relationship between thekedar and his supervisor or foreman is marked by trust, since a contractor's ability to take on multiple projects depends on their presence and effectiveness on site. Because they handle money and accounts, there is always a risk of getting 'cheated', so supervisors must be trustworthy, according to thekedars we interviewed. They spoke about the potential pitfalls in this relationship, saying that they rely on their acquired knowledge and instincts to avoid being cheated:

Thekedar should know everything—drawing, labour, and so on. If I do not know how to draw, I will rely completely on the foreman. Suppose if I go home today, a foreman cannot cheat me. Today I am fearless because I can explain my work to the engineer. If I do not have the knowledge and have to call the supervisor to explain the work, then they will think that I don't know the work.

Supervisors possess varying levels of technical skill, again depending on the nature of the contract. For instance, several supervisors we interviewed were capable of reading and implementing plans and drawings given to them by the site manager. But others were simply responsible for overseeing unskilled work such as cleaning or moving materials, so their main responsibilities were in the areas of people management and keeping accounts.

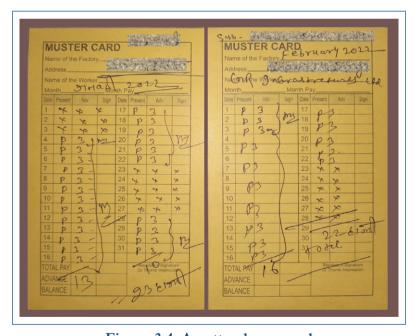


Figure 3.4. An attendance card

Thus, depending on the scale of the contractor's business, one or more of the following functions are fused in the supervisor's role: (i) overseeing the work of his gang on a daily basis; (ii) looking after the needs of his workers in the camp and resolving issues; (iii) maintaining the daily attendance register and keeping track of individual shifts, overtime, and so on (a record that is used to calculate payments) and ensuring that workers sign the attendance sheet; (iv) distributing the weekly 'kharchi' (cash allowance, a regular part of the payment to workers), maintaining records of payments, and communicating additional or emergency payment requirements from workers to the thekedar.

Apart from managing their workers, supervisors must forge and manage relationships with the site engineers and managers who allocate and supervise the work. Managers usually represent their interactions with supervisors as benign and cooperative, depicting the relationship as one of 'coordination': It is the contractors' supervisors who are responsible for giving the output, while our engineers will give the guidance to get the work done.' But our observations on construction sites suggested that this relationship is often tense and conflictual. Several times we witnessed a site manager screaming at his engineers about some lapse, who in turn yelled at the supervisors with whom they were 'coordinating'. Supervisors were more open about this tension: several emphasised that they are often blamed for problems that arise, rather than the site engineers. Kiran, Manu's supervisor, said: 'A supervisor has to take responsibility for everything—if anything happens to a worker or a worker makes a mistake, the contractor and the company will question only him'.

Tension between supervisors and site engineers also stems from their asymmetrical relationship, as engineers are superior to them in the organisational hierarchy because of their educational degrees (usually graduate engineering degrees or higher) and positions in the company, although they may have less experience in construction projects. Several supervisors stated that they had a better technical understanding of construction processes than the site engineers, and they complained that engineers take credit for difficult tasks accomplished even when their knowledge and experience is inferior to those of the workers who actually completed the work. Talking about a new shuttering technology they were using on the site, a supervisor said:

The engineers know much less than us. Some of my men have been working with this shuttering material for the past seven years. It is we who have to see whether the staging is done properly or not, if the material is correct. We have to tell the engineers if the work is okay or not. But they take the credit. They [engineers] don't know anything, still we have to listen to them. Why do they give so much respect to engineers, just because they have a degree?

To fulfil their responsibilities, supervisors must possess or develop strong social ties and a sense of solidarity with their workers. Several factors are crucial here. First, members of a gang often come from the supervisor's village or locality, which generates a feeling of 'trust' or at least a way of enforcing obligations. We were told that supervisors may give advance payment to their workers when the thekedar is unable to pay on time—since they come from the same locality, they said, the worker would not be able to 'run away with the money'. Second, almost all supervisors and foremen began their careers as workers, hence their social class identity is aligned more closely with workers rather than with thekedars (who may also have started out as supervisors or workers but have grown 'big' through contracting). Finally, as noted above, a supervisor usually stays in the labour camp along with his gang, which reinforces social bonds and fosters mutual trust. Supervisors live alongside their workers, eating and drinking with them, helping out with their problems, and mediating between them and the thekedar or site engineers. This relationship is more symmetrical compared to the hierarchical relationship that usually obtains between workers and thekedar. For instance, where supervisors are responsible for distributing the weekly kharchi, workers may negotiate with them to increase or decrease the amount

paid, or they may request them for extras such as a mobile card recharge. Kiran observed: 'In this line, bharosa (trust) is the main thing. If one breaks the trust, he never gains it back. But to build this trust, it takes a lot of time.' He then told a story about how he paid off workers after his former contractor ran off without paying their dues:

It was because I had brought them from my village. If they don't get paid, people will say, "Kiran, you brought men from these villages, but now you are not paying. I don't know anyone else but you, so you have to pay us." I told them the thekedar's name and the name of his village, telling them to go and ask him. But they insisted that I should pay them. My father said it's not about the money but our prestige ("izzat ki baat hai"). He asked me to sell some of our land and pay the dues. But I said I will not sell land and instead I will work and pay them. That's how I paid them.



Figure 3.5. Supervisor explaining the job to his workers

The fluidity of the labour force, and the instability of the thekedar-worker relationship (discussed in the previous section) have shaped the strategies of managerial control used by different actors responsible for achieving targets. We did not often witness older, more direct or confrontational styles of labour control on construction sites (such as yelling, speaking roughly, or threatening workers with negative consequences for recalcitrance). Instead, most thekedars and supervisors spoke about the importance of 'achha bartaav [good behaviour]' or the need to 'tareeke se samjhana [make them understand tactfully, nicely]' in handling workers. Abdul, for example, said that he prefers to speak nicely to all his workers since it is not in his nature to be 'strict': 'I am not that kind of a person, I prefer to talk to workers and find out what the issue is and resolve it. I know of contractors who are strict with their workers, there are even stories of them using force on their workers, but I have never had to do anything like that.'

### 3.4 Extracting surplus value from construction labour

The combination of formal and informal organisational and labour practices in construction projects provides various opportunities for the extraction of value, not only by construction companies and thekedars through business profits, but also by engineers, higher-level managers, and even government officials. Although the work orders issued by companies to labour contractors may seem to fall within the 'organised' segment of the value chain, the labour management system provides much scope for negotiation as well as tension around contracts and payments. This also means it is not possible to reliably estimate how much surplus value is extracted from the labour of construction workers at different points, and by various actors, in the value chain.

The informality of the labour contracting system makes it particularly difficult to assess the profit margins of thekedars. One reason for this is that wage rates vary across contractors and companies. Thekedars, site engineers and project managers all agreed that there are standard rates in the industry for specific skills and for different levels of unskilled roles, and that workers know what these are, but the figures they quoted to us varied. Interlocutors noted that 'measurement basis' contracts yield higher margins but require more investment upfront, while manpower supply contracts (typically used for unskilled workers) fetch lower profits but require less investment. Wage rates mentioned to us by site engineers, workers and other interlocutors ranged from 280 rupees to more than 1000 rupees per day, depending on the trade, skill level, work experience as well as the contractor. However, these rates are far from fixed or transparent, since what the worker actually earns is usually not the rate mentioned in the work order, and the calculation of payment (usually paid monthly or weekly into the worker's bank account by the thekedar or munshi) involves adding overtime, subtracting the weekly kharchi, and often cutting some amount against advance given.

Second, the ubiquity of piece-rate contracts in the industry introduces a layer of complexity into calculating a thekedar's outflow in the form of wage payments. While workers are almost always paid a daily wage (payments are calculated on a weekly or monthly basis, including overtime and adjusting for advance and weekly kharchi payments), work orders are based on the quantum of work to be completed (measured in feet, metric tonnes, and so on). In preparing a quotation in response to a tender, the thekedar estimates how many man-days are required to complete the work specified while leaving him a fair margin—a calculation that is subject to various risks but also provides scope for manipulation and manoeuvre. Indeed, Sargent (2018) argues that this difference between piece-rate (measurement basis) work orders that thekedars are given by contracting companies, and the payment of workers on the basis of man-days, is central to the generation of surplus value by the thekedar.<sup>2</sup>

This disjuncture between the terms of the work order and the terms of the agreement between the contractor and his workers, as well as the informality of the labour contracting system, provides several avenues for extracting profit. First, supply-basis work orders specify the man-day rate to be paid to workers, with a man-day defined as eight hours. However, the thekedar may have a different agreement with his workers, with regard both to the rate as well as the number of hours. A labour contractor working on a BMRCL site explained:

The engineer tells us a rate and then we decide how much to give to a worker. Like they will give me 470 rupees per day for helpers, so I tell my workers that they will give them 420 rupees per day. For a mason I get paid 520 rupees, so I give between 450 and 470 to the workers.

Sargent (2019) also argues that these two forms of payment represent different 'moral economies of remuneration' or 'ideologies of labor' (Sargent 2021): the daily wage 'frames productive activity within a patronage relationship' while the piece-rate represents productive activity as the 'calculable completion of a contract' (2019: 196). These two modes of remuneration, and the essential translations and transitions between them, 'come into tension through the production process' (Sargent 2018: 37).

For daily wage workers, a workday is typically 12 hours, but the extra four hours of overtime is supposed to be paid at 1.5 times the normal rate. Thus, the contractor can generate profit from this gap between what is written in the work order and the agreement he has with his workers: (i) from the difference between the rate specified in the work order and what he actually pays the worker, and (ii) from the extra man-days recorded in the bill submitted to the company, which reflects the typical 12-hour shift including overtime pay.

A second way in which labour contractors can generate surplus value from labour is by bringing fewer workers than promised. According to the owner of a small construction company: If you need 100 people, the sub-contractor will bring 80 and that way makes more money. The employer doesn't look into how much is paid to the workers or how many are there on site.' To take another example, a site engineer explained that a thekedar might contract to supply 40 carpenters but actually bring 30 carpenters and ten helpers. By calling the helpers 'carpenters', he can charge more for their wages in his bill.

A crucial point here is that the contracting company usually does not interfere in the agreement between the thekedar and his workers. Project managers and other executives in the head office have little or knowledge of how much workers are actually paid, nor do they have control over their working hours—although several managers claimed that they confirm that wages have been paid before releasing payments to thekedars.

Third, in the process of obtaining the necessary approvals from the company for the release of payments, there is scope for negotiation and manipulation. This again stems from the difference between piece-rate contracts and daily wage payments, as well as the gap between the formality of the work order and the more fluid and socially embedded agreement between a thekedar and his workers. A site manager described the process of verifying bills for measurement basis contracts:

When the contractor submits the bill, he includes an account of how much he has paid to the workers, how many days they worked, and so on. Suppose he writes that he has paid 800 rupees per day to 300 carpenters, which comes to 240,000 rupees. Then I might say, No, why are you asking so much, we will pay you 220,000 rupees'. This is because although he has said he pays 800 rupees per day to his workers, he actually pays 700. We know that, so we negotiate down.

We asked him how these claims can be negotiated when they are already specified in the work order:

The work order is made based on area or tonnage, not number of workers—for example, 220 rupees for 1 square metre of shuttering ply work. But he doesn't give instructions to his guys by area, he gives work on a daily basis. According to his calculations, the worker has to do a certain amount of work per day for him to make a profit and to keep to schedule. So, he may add overtime or more workers on the job and then bill us for that work.

Most company representatives, when asked about the profit margins of labour contractors, responded that they have no knowledge about this and that it does not factor into negotiations around work orders. Thekedars, too, consider this information sensitive and believe that divulging it to the company or their workers would be detrimental to their interests, making them vulnerable. Our interlocutors

most often cited profit margins of 10 to 40 per cent, with 25 or 30 percent being the most mentioned rate, but most did not find such margins unfair since, they argued, the contractor takes on so much risk. Surya, for example, said that he expects at least 20 to 25 percent margin: 'In a 3 lakh contract, if I am not making 60,000 rupees how will I book tickets and arrange other things for my workers? Manu explained:

I calculate my bid to make 30 percent profit. At some companies you get 10 percent while others give 40 percent, but at minimum we should get 20 percent. After taking so much of the burden, we deserve that much. I came so far from Odisha, leaving my family there.

#### 3.5 THE BUSINESS OF LABOUR CONTRACTING

As the foregoing discussion suggests, the capacity to generate substantial profits from labour contracting depends on the social skills, financial knowledge and cultural capital of the individual thekedar. Apart from recruiting and managing workers, labour contractors must be able to accurately project manpower requirements and costs for a job, negotiate favourable rates, and find ways to 'pad' the work orders and bills to ensure good profit margins. A key requirement for a successful contracting business is to have sufficient working capital, especially because thekedars often give advances to workers and contracting companies frequently delay the release of payments. Apart from paying wages, thekedars must also cover various overheads, such as transportation, provision of food and other necessities on site, and 'keeping Labour Department officials happy'. A large contractor said that he needs to invest at least 20 lakh rupees to deploy 50 workers on site. Kiran said, 'Only if you have 1 lakh rupees can you think of bringing 10 workers from the village'. He argued that having money is more important than knowing the work: If someone has money, he can bring workers, and the supervisor can guide the workers.'

The ability to build up this capital and knowledge often comes down to the individual life trajectories and work experiences of thekedars, as well as their tolerance for risk. Labour contractors generally do not hail from business families or castes whose 'traditional occupation' is business, hence they must cultivate business acumen on the job. Most thekedars we interviewed started their careers as workers, and after gaining some experience moved into a supervisory position, managing a group of ten to twelve workers on site on behalf of the contractor—a role that allows them to learn about work orders, accounts, and other aspects of the business—before starting to take small contracts of their own (sometimes with the help of their thekedar). Abdul claimed that at least one hundred workers that he had brought into the industry were now small contractors themselves. To our query about the nature of his relationship with these contractors, he said it is cordial: 'Why would I be against someone else wanting to do well? There is very little I can do to stop them. Sometimes they hit hard times, and they come back to me for work as well. 'Anand observed, Juwari vala kaam hai' [it's a job for a gambler]'. His friend, 'Alok', chipped in, 'Everyone wants to become a contractor! Some engineers also leave their job and start taking contracts.'

We encountered several thekedars who have done well by working their way up, starting out as workers and gradually transforming themselves into 'big' contractors who can recruit and deploy hundreds of workers at a time. But we also met several who had fallen into debt or could not sustain sufficient working capital and so had to abandon the business. We were told several stories about failed contractors who abandoned their workers when they were unable to pay them. But more often it was the thekedars who were short-changed by their contracting companies, especially when the pandemic struck. We recorded several narratives of thekedars who were forced to sell their land to pay their workers and were now back in the city working as construction labour or in another job. A contractor confirmed, 'Yes, I have seen many failed thekedars. Many companies don't pay, some companies go bankrupt. Then these contractors either go back to the village or find some other work?

This movement into and out of labour contracting illustrates the precarity and instability of the business, which stem not only from its 'informal' character but also the superior position of construction companies within the value chain. Although thekedars are able to negotiate with project and site managers about work orders and the labour process on site, as discussed above, ultimately, they are dependent on the construction company to release the payments needed to keep the business going. But ensuring a timely flow of money from the contracting company is one of the two major problems mentioned by thekedars: (1) late payments (or even non-payment) by contracting companies, and (2) the risk of giving advance to workers who might then disappear. In this context, the capacity to generate and sustain sufficient working capital, and to manage inflows and outflows of cash, are key skills that often separate successful thekedars from those who fail.

Although extracting timely payments from the contracting company is key to ensuring cash flow and decent margins, delayed payments seem to be standard practice in the industry. Most thekedars reported an average of three months' delay in releasing payments after the submission of bills. A 'good company', in thekedar vocabulary, is one that issues payments within four to six weeks. The following description by an engineer of the process of clearing bills indicates why it may take a long time:

Once the work is completed, the vendor prepares a bill, which is verified by the unit in-charge [site engineer]. Then it comes to the QS [quantity surveyer] for verification, after which the project manager signs it and sends the bill to the accounts department. There are two accounts departments—project and central. After the project accounts department documents the verification, they pass the bill and send it to the central accounts department. There, after four or five steps of verification, the invoice is generated. From accounts it goes to the finance department for issuing the payment.

Clearly, even when there are no other obstacles, clearing of bills takes time, which means that a contractor must have sufficient working capital in hand to run the business while waiting for payments. Abdul said, It is very difficult to survive with the companies acting the way they do. Of all the companies I have worked with, I can probably name only one or two that pay on time. Everybody else keeps the contractor hanging.' Anand even claimed that a major reason behind the labour shortage is delayed payments by companies: If we would get our money on time, workers would stay at the site for a longer period.'

Several thekedars also complained about deductions to their payments made by companues, such as TDS (tax deducted at source) and security deposit against borrowed equipment (to ensure that it is returned in good condition). Another issue highlighted by several thekedars, which adversely affects their cash flow and profit margin, is that contracting companies typically retain 5 percent of the total amount owed to the contractor after the work is completed. This withholding during the 'defect liability period', usually of one year, is a strategy for holding the contractor liable for any unfinished or improperly executed work. Ahmed explained:

For example, if we find cracks in the plastering work, then either the contractor has to do the work again or I will have it done by some other contractor and cut the money from the main contractor's retention money. This is because I can't pay twice for the same work.

In addition, we gathered several stories about construction companies not paying thekedars their dues, forcing them to cover workers' wages from their own pockets, or in some cases driving them out of business. Satish, who faced substantial losses when the company he was working for did not pay him, said, 'Kya kare hum log ka paisa fasa rehta hai, ab kya karenge, aisa chalte rehta hai' [What can we do? Our money gets stuck many times. It keeps happening here].

In this context, possessing the financial resources and acumen to withstand such shocks—losses due to desertion by workers or non-payment by companies—is a crucial attribute for thekedars to survive and thrive in the business. Financial precarity, combined with an inability to manage these risks, are important reasons that many thekedars do not last long. Successful thekedars are skilled at keeping track of, and control over, the various monetary and bodily flows that constitute their enterprise, as well as ensuring that the work is performed as per standards and the work schedule.

Thekedars also learn to gauge the viability of newer or smaller companies before taking on jobs. Abdul explained:

I have worked with all kinds of companies and have seen small companies shut down before my eyes. New companies may pay on time in the beginning, but later on they start holding the payment, so we have to be very careful working with such companies. It is better to work with big companies.

Thekedars have few options to build working capital, apart from profits from previous contracts. Companies rarely advance money to labour contractors unless the relationship is long-standing, A site engineer working with a major construction company explained that they have no system for issuing advances to thekedars:

[So, contractors need to be in a good financial position to work with your company? \ Yes, they need to have enough reserves to pay the workers and get their payments from the company later. [Do you check their financials before enrolling them?] Yes, we have our vendor registration procedure—in this we check their financial viability and so on.

### However, Ahmed said:

We don't usually give advance. But sometimes we may give when they have already done the work. We check for how many days he has worked and for that work we see if we can make adjustments and pay something. That way, even if the contractor runs away, he has done at least that amount of work.

When we asked Sanjay if they might help out contractors facing a cash flow problem, he said that they are not allowed to give advance but can help in other ways:

Billing is done monthly, but every week we will give them a food allowance for the workers, so they need not wait for their bills to be cleared to cover those expenses. That amount covers only part of the contract. And every month they settle the monthly bill, deducting that amount given in advance.

In the absence of collateral, few contractors would be eligible for bank loans to shore up their working capital. However, Abdul said that he has obtained bank loans of up to 50 lakh rupees to pay his workers when a company delayed payment. But most thekedars depend on payments from contracting companies to maintain a healthy cash flow. Thus, they must constantly shore up their symbolic capital and maintain good relations with project managers and other company officials to get their bills paid on time. This is another reason that managing relations and building trust both with the contracting company is crucial for thekedars.

However, where negotiation and 'trust' fail thekedars may resort to legal action since delayed payments adversely affect his ability to retain workers. Abdul said that he at times has engaged lawyers to handle such problems, even filing a case against a company for non-payment of dues. He related his strategy for handling delayed payments:

[How do you manage your workers when a payment is delayed?] I cannot pull all the workers off the site, If I did that, how would I get paid? My money would be gone. So, I have to be very strategic. I gradually pull out workers in small numbers, but I maintain workers on the site until I get paid. A few years ago, I lost money when company xx did not pay 13 lakhs they owed me. There was some misunderstanding between the construction company and another company holding the land. Because of their problems I had to suffer and lose money. I have often faced such financial losses, but I don't hold onto the grievance. I just move on after learning lessons from these incidents.

Of course, company representatives, when asked, tell a different story about delaying payments, claiming that they withhold money because of some lapse by the contractor. The HR manager of a large firm said that they might withhold payment when the work has not been completed: In any case, payment of bills normally takes two to three months, since processing them takes time'. But this interlocutor also said that such issues arise only in 5 or 10 percent of transactions.

Although most thekedars complained about delayed payments, contracting companies also need to ensure that their thekedars do not 'run away' by disbursing payments as efficiently as possible. Sanjay (the construction company VP cited above) said: For contractors it's a cash flow game—they have trouble when they can't manage cash flow. If you can pay contractors on time, you can maintain a reasonable supply of labour.' According to Ahmed, thekedars make good money. Citing an example, he said that Abdul has at least 2000 workers spread across various sites in Bangalore: Even if he makes 50 rupees per worker per day, imagine the money he makes in a month.' Ahmed went on to say that all contractors complain that they are running at a loss because companies do not pay them on time, but pointed out that they would not be able to keep working on a site without payment beyond two or three months: The best thing to do when a contractor says a company has not paid him is to ask him how long it has been, then you will know how true this claim is.' Moreover, big thekedars usually deploy workers in multiple sites, so in case a payment is delayed they can cover it from payments from other sites.

The other major risk that thekedars face stems from the practice of giving advance to workers. The hierarchical nature of the relationship between the thekedar and the worker, and the constraints imposed by cash advances, are revealed in the narratives we gathered. Several contractors spoke about losing money because they had given advance to workers who later disappeared. A shuttering contractor asserted that overall, he loses one-fourth of his profits due to advances that he is not able to recover: 'Once I lost 50,000 rupees to a person from Bihar who took the money and fled.' Another thekedar remarked that over the past 15 years he has lost at least 25 lakh rupees in loans given to workers that were never recovered. These narratives also reflect the demise of the patronage relation between thekedar and worker (discussed above), in which workers at times enjoy more leverage. Surva said that he gives 20,000 to 50,000 rupees as advance to a mason but noted: 'Sometimes workers don't even return the money. Can we trouble their families for that? We can't.'

### Ahmed observed:

Suppose a contractor goes to a village and pays 50 workers advance money of 10,000 rupees each. If ten of these workers run away, he will face a loss of 1 lakh. Because there is no legal bond, this agreement is only on the basis of trust. Workers can just disappear, and the contractor can't complain about them. They have to give weekly kharchi to their labourers, otherwise the labour will find some other thekedar to work with. Same for the monthly payment to workers—if the contractor doesn't pay, he will stop coming for work from the next day. They need to have enough cash in hand. [What if the thekedar doesn't get paid by the company? In most big companies, payments are regularly delayed by two to three months. Because of this, contractors keep big margins of 20 to 25 percent.

### Devesh similarly commented:

There is a lot of risk involved in our work. If I am paying advance to bring workers here, there are chances of facing loss if they leave the site. Like I had a loss after 15 of my men ran away. I can get back on track, because I am an old contractor, but others can't. New people can't face these things.

Devesh even suggested that a contractor could lose his life due to this 'tension': 'Suppose a contractor brings workers and the company doesn't pay him, so he takes money on interest from his village [from a moneylender]. But if he still faces losses here, he will die from the tension, no? He narrated another incident from his career, when 20 of his men suddenly left and the company then put 50 percent of his payment on hold, or around 35 lakh rupees.

Ties of caste, kinship and village impose obligations on the thekedar to pay his workers even if the company has not paid him and he is short of funds. A large masonry contractor explained that even when he has given a worker a large advance, he has to pay him at least 5000 to 6000 rupees per month (after cutting some amount against the loan) so that they can 'run their family'. This is because workers would have already used the advance for a family emergency or some other purpose. 'Often we have to give another advance without recovering all the money from the last advance.' When we asked about the repayment schedule and how they manage these accounts, he replied, It may take between six months to two years to get the amount back. We have noted down the advance given and the remaining amount.' But, as noted above, many

workers stay on a job for only three to six months and often change thekedars, which means that contractors may not be able to recover the full advance by cutting from the monthly payments.

Regarding the accounting system, this interlocutor explained further:

We maintain a daily attendance register while the worker keeps the daily attendance card with them. To show workers that we are keeping account of their work honestly, we show them the card. It is the worker who counts his attendance and overtime. If we do not let them calculate their dues, they will think that we are paying them less. Earlier thekedars used to be dishonest, nowadays workers have become dishonest. Now even if we forgot to record an hour's work in the attendance, that worker will tell 100 other workers that this contractor is dishonest!

This narrative illustrates the importance for thekedars of building 'trust' and 'reputation' to recruit and retain workers, but it also illustrates a weakening of the patron-client system wherein the worker is expected to implicitly trust and obey the contractor. The same interlocutor observed: 'Relation jab hota hai na to ek acha sa group ho jata hai aur ek doosre ka dost ban karke na bahut aaccha relationship ho jata hai' [if you make good relationships, you develop a strong group, and by making good friendships with each other you make good bonding].

### 3.6 DIGITALISATION AND COMPLIANCE: FORMALISING THE INFORMAL?

The bigger they become, the more thekedars' informal transactions get pulled into the 'organised sector'. Over the last few years, the digitalisation of most government procedures and services, as well as banking and financial transactions, has facilitated the state's efforts to increase revenue and 'formalise' the informal economy by ensuring compliance with taxation and social security regulations. Labour contractors have been affected mainly by two such measures: GST (Goods and Services Tax) and EPFO (Employees' Provident Fund Organisation), a government-mandated pension scheme popularly known as 'PF'.

Because of these pressures for compliance, big contractors may form proprietorship or partnership companies through which they run their businesses, placing them squarely within the organised sector. Yet their labour practices remain mostly unchanged. Indeed, as the 'informal' becomes increasingly entangled with, or encompassed by, the 'formal' through state efforts to bring more individuals and businesses under the tax net, thekedars may be incentivised to squeeze labour further to sustain their profit margins.

These shifts in the labour contracting system have been facilitated or even mandated by the spread of mobile phones and the deployment of digital technologies by the government for most functions. Digitalisation of governance has had far-reaching implications for the autonomy, welfare and incomes of workers and for labour practices, including altering the relationship of thekedars with their workers and with contracting companies. For example, we found that contractors now use mobile phones extensively to contact, recruit and keep in touch with workers (and their supervisors) on site and in the villages. With mobile phones, it is also now easier for workers to contact their thekedars and for contractors to communicate with workers' families.

In addition, the rapid diffusion of phone banking in India via digital payment platforms following the pandemic has altered the mode of payment: thekedars now commonly transfer wages directly to workers' bank accounts via mobile phone, rather than making cash payments in hand or by physically depositing money in their village bank accounts. A shuttering contractor working with a large construction company recalled the difficulties he used to face in making payments because his workers did not have bank accounts, or if they did, he would have to make direct bank deposits and then share the deposit slips with them. Now he pays his workers through payment apps or UPI transfers to their bank accounts. A worker simply has to provide the bank account number where he wishes to receive the wages. This interlocutor observed that most of his workers now have smart phones, saying that he regularly 'trains' them on how to use these devices, manage their accounts online, and so on. Similarly, contracting companies usually pay labour contractors through direct bank deposits, which means that financial transactions are recorded and traceable by the government, pushing them into the tax net.

According to Sanjay (VP of a construction company), payments and other processes related to workers have become much easier with digitalisation. For example, after a work order is issued, the thekedar sends the list of workers he has recruited, along with their Aadhaar numbers, bank account numbers, and other details, to the HR department. Nowadays, without Aadhaar, address proof, and so on, no worker can come.' After checking the list, HR requests the thekedar to get the workers' medical check-ups done, and these reports are sent to the office via WhatsApp. Only after receiving all these details do they allow the thekedar to bring the workers to the site. Aadhaar is the main proof used by construction companies to ensure that the workers they hire are not under-age. But several workers interviewed in Bengaluru confessed to getting fake Aadhaar cards made that show them as older than they are, so that they could evade the legal minimum age requirement.

In addition, because workers' payments are now deposited directly into their bank accounts, Sanjay claimed that the company can verify in case a worker complains to them about non-payment of wages. Now, 90 to 95 percent of workers have bank accounts. And yes, most workers have smart phones these days. So, it is easy to track payments.'

The central government's concerted efforts to bring more businesses into the tax net through GST (Goods and Services Tax) and other measures has caught at least big labour contractors. Thekedars whose annual turnover exceeds 20 lakh rupees are supposed to register and get a GST number, and also to add GST of 18 percent to the bills (above a certain amount) they submit to the contracting companies. This tax amount is to be deposited with the government. Given that this is a fairly new system and many thekedars are not set up to handle the complicated accounting or online payments and filings involved, the company may help them by directly depositing the required tax and deducting the amount from their payments. But this system has imposed a burden of paperwork on thekedars, many of whom are ill-equipped to handle this work, and has also led to conflicts and confusion. The HR manager of a large firm related the following example:

Recently we had an issue with a sub-contractor. We had paid the GST [Goods and Services Tax] due, but he did not submit the account to the government. So, we held back 5 lakhs of his payment. He went to the Labour Department to complain, but they explained to him that the contractor is supposed to deposit GST, which we have given. If he does that, we will make the payment.

This narrative illustrates the challenges that thekedars face as they are gradually incorporated into more formal modalities of business from a largely informal system.

Big contractors often engage chartered accountants (CAs) or lawyers to handle taxation and other compliance procedures, but several complained about how their profits have been reduced by these extra expenses on top of the taxes. A big shuttering contractor said that he files GST as well as income tax returns, for which has to pay a CA. Because of the large size of his business, Abdul engages two chartered accountants (CAs) to handle GST and other tax and compliance matters—one in Kolkata and one in Bengaluru. Abdul explained that he generates two types of bills: 'GST' and 'non GST' (under 20 lakhs). GST bills pertain mainly to his work with big companies, while non-GST bills are generated for smaller jobs. He has two GST numbers, one in his own name and one in his wife's name. However, most thekedars attempt to handle these requirements on their own or they request the contracting companies to help them, since hiring a CA would add to their overheads.

Digitalisation has also had important implications for construction companies, especially with regard to compliance. Many observers have noted that the construction industry's reliance on informal contractual labour allows organisations to bypass many requirements of existing labour laws and regulations. While this remains largely true, it is useful to explore to what extent contracting companies adhere to statutory requirements and the strategies they use to sidestep them. Large companies attempt to enrol at least some workers (even contract workers) in provident fund and insurance schemes, but they admit that they can achieve compliance only 'up to some level'. Managers complained about the difficulty of complying with labour laws, even though they are able to avoid most regulations by relying on labour contractors.

As outlined above, construction companies keep as much distance as they can from the management of workers. Once they issue a work order, they are not concerned with how much workers are paid (even though the rates are mentioned in the order), their working hours (again, although statutory hours are mentioned), or with labour conditions (apart from complying with some requirements regarding health and safety standards). Although we found that several major construction companies were attempting to comply with some labour laws, such as depositing money in some workers' PF or ESI (Employee State Insurance) accounts or attempting to register workers with the state BOCW Welfare Board (less frequent), these efforts seemed to be piecemeal and half-hearted. Not surprisingly, HR managers complained about the difficulties they face in complying with labour laws, throwing the blame on the state for creating complicated and unworkable systems.

Construction companies may make online contributions to workers' provident fund accounts in cases where the employment period exceeds six months, but compliance with this requirement is far from universal or consistent. HR departments are supposed to create EPFO accounts for workers and

ensure that the statutory payments are made, but since many contract workers employed by thekedars do not remain on the job for more than six months, this requirement is often bypassed. According to a representative of a major construction company, if a worker is already registered with PF the contractor is supposed to deposit the required payments in the account, but if not, the company undertakes the registration.

To manage these requirements, construction companies may outsource them to third-party agencies. Thekedars recruit workers and hand over their information (such as Aadhaar number) to the company, which in turn gives it to a payroll company that handles processes such as PF deposits. In such cases, the workers may also be paid by the construction company through the payroll agency, which then pays the sub-contractor a commission (called a service charge).

However, there are several obstacles to the smooth functioning of EPFO in the case of contract and migrant workers. HR managers complained that the process of collecting workers' PF numbers or enrolling them for the scheme is cumbersome. Also, workers may have been enrolled in EPFO through a previous job but do not have their PF numbers. Construction companies would rather avoid this paperwork and thekedars usually do not have the capacity to handle such payments. Indeed, one reason we were given for construction companies preferring to hire workers through contractors is to avoid these compliance requirements.

According to Abdul, some companies include a clause in their work orders requiring the contractor to deposit PF for their workers. The contractor is supposed to show the company that he has created PF accounts for all his workers and has deposited the required money in the accounts, before his payments will be released. Indeed, Alok had gotten into a conflict over this issue—a company had withheld payments because he had not deposited PF in his workers' accounts. But Abdul stopped taking contracts from such companies, he said, because compliance with PF requires too much paperwork and workers do not necessarily work with him over a long period of time. When we mentioned that several construction company managers claimed that they deposit PF in workers' accounts, Abdul was sceptical: 'This is a lie. Ask any company what the amount of PF is that they pay the contractor per worker and see if they can give you any numbers!'

Construction workers are also supposed to be covered by health insurance, another compliance issue that companies find ways to skirt. Most follow a system that Abdul termed 'blank insurance', where a company takes out group insurance for a number of workers less (say, 40) than the number that is actually on site (100), without giving individual names. In case of an accident on site or some other health issue requiring them to file a claim, they then add the worker's name to the policy. Abdul was not critical of this strategy, however: 'Companies will not make money if they pay health insurance premium for all 100 workers, so this is a business strategy for them.' He noted that this system works through an 'informal adjustment' with the insurance company.

When we spoke with 'Rahul', the HR manager for a luxury real estate developer, about how they manage compliance with labour laws and regulations (EPFO, insurance, and so on), he told us frankly that his company is about '50 percent compliant'. He argued that it would be very difficult to cover all workers under all the schemes, enumerating the various steps they would need to follow to become compliant. For instance, they would have to collect not just the bank account and Aadhaar numbers of workers but also include the names of nominees and other details for enrolment. 'Someone would have to sit with each worker and do everything. And even if you give PF they don't claim. Even educated people are struggling with the PF online system! The situation is the same with ESI.' For BOCW registration (discussed in the next section), the worker must have a stable cell phone number to which an OTP is sent for confirmation. Such requirements make these processes very difficult:

On one site we might have 1000 workers, how can we give all these benefits to so many? We would have to hire so many people to handle all this work. Contractors also object since the workers won't be working while all this is going on. [What about NGOs?] Yes, an NGO has helped us with this. But even when they come to the site, hardly four or five workers come forward for registration.

Rahul argued that workers should have just one ID card: Why a state labour card, then PF, then xyz? Each state has a different policy and benefits', he complained.

In theory, labour contractors are required to register themselves under two laws: the Inter State Migrant Workers Act (ISMWA) and the Contract Labour Act (Regulation and Abolition) Act, 1970 (which requires registration only in the destination state where workers are placed). Many thekedars reported that it was common practice across the industry for contractors to apply for a license for less than twenty percent of the number of workers they actually mobilise, to avoid the high costs of compliance. When we asked Abdul whether he had obtained a license to hire workers, he responded in the affirmative but was not sure which license he had. His CA had obtained the license for him through an online application. 'Nowadays everything has become online, especially after Covid', so Abdul relies on his CA to do all such government work. According to Abdul, earlier the license had to be renewed every year, but since the rules changed he has to renew it once in four or five years by paying 5000 rupees. To our persistent questions, he acknowledged that his license is only for ten workers although he hires many more. 'All these licenses are just formalities, they don't mean anything.'

The digitalisation of taxation and labour governance (discussed in more detail in the following section) has introduced a measure of 'formality' into what is still a very informal system of employment. The entanglement of relatively formal transparent financial and bureaucratic processes, enabled by the spread of digital technology and Aadhaar-linked governance, with the social relationships and informal transactions that constitute contracting relations, creates a complex social field that workers (and thekedars) must learn to navigate. Digital technologies arguably also inject new forms of precarity and risks of exploitation or exclusion into the contract labour system—issues that should be further explored.

# 3.7 Discussion

In this section, we have described the organisation of labour supply chains and construction projects and techniques of control over workers and the labour process. Our data illustrate how 'formal' and 'informal' structures and processes are deeply entangled, and even co-constitutive, within the

construction industry. The construction labour supply chain is characterised by modalities of labour mobilisation and organisational control in which labour contractors and other intermediaries are not only central figures, but also key 'hinges' or links that connect and mediate between 'organised' and 'unorganised' modalities of labour control and capital accumulation. Further, the organisation of construction projects is constituted by an array of relationships and practices that combine, or amalgamate, 'formal' and 'informal' processes and structures.

The fieldwork observations and narratives presented above illustrate the diverse ways in which informal labour relations and modes of organisational control are central to the long-distance labour supply system in the construction sector in India. Value is extracted from the labour of itinerant construction workers and distributed amongst different actors in this labour supply value chain, from real estate and construction companies at the top to thekedars at bottom, who are connected through diverse types of intermediaries and contractual arrangements. Within these value chains and inter-digitated organisational structures, surplus value is generated and sequestered through varied mechanisms and relationships. However, the separation between capital and labour itself can be quite fuzzy and shifting in this domain, as we find actors shifting between the roles of worker (employee) and thekedar (employer).

Thus, the production and deployment of a highly mobile and temporary workforce should be considered a central element of the business model in the construction sector and integral to the labour process itself, rather than constituting an external 'legacy' system of labour recruitment that will eventually wither away as corporate and labour governance policies and laws evolve. This has important implications for policymaking: social welfare policies for migrant workers generally view the worker as an individual and legislate his relationship to the principal employer and the state, largely without accounting for the complex relationships between worker and thekedar, thekedar and the construction company, and so on. The problems that this scenario presents in designing and implementing adequate social welfare and protection policies are discussed in the next section.

# Social Protection for Migrant Workers

In the preceding sections, we have conceptualised the organisation of labour mobility and employment as constituted by a series of interlocking, multi-scalar structures, chains and relationships spanning source and destination regions. We described the modalities of surplus extraction and distribution amongst different actors in the labour supply value chain, from real estate and big construction companies at the top to workers at the bottom, through the diverse types of intermediaries and contractual arrangements that constitute these value chains of labour supply and production, tracing how 'formal' and 'informal' structures and processes are deeply entangled and even co-constitutive of production in the construction industry.

In this section, we turn to the governance of labour migration, focusing on policies and programmes for the social protection of migrant workers that were introduced following the Covid-19 migrant labour crisis. We first contextualise these post-Covid initiatives within the longer history of legal and policy interventions in the domain of labour, showing that they have been plagued by contradictory issues of a proliferation of laws, on the one hand, and their irrelevance to the majority of workers who are informally employed, on the other. The inheritance of fragmented and differentiated policy regimes from the colonial era, and their incongruence with the emergent realities of post-independent India, warranted a standardisation of labour policy in the country. However, the regulatory regime that has been adopted appears to regard the push for standardisation and rationalisation as an exercise in centralisation. In addition, we highlight that labour governance has been historically characterised by persistent tensions between the centre and the states and lack of clarity over division of responsibilities and delegated legislation, which has spilled over into current initiatives as well.

In this section we describe and analyse three key interventions, two by the central government and one state-level, examining their design, implementation and outcomes to draw wider insights into the challenges and conflicts in policymaking in this domain. We attend especially to the digitalisation of labour governance through new registration systems for informal workers and examine their implications for workers' access to social rights and welfare benefits.

The first sub-section below provides a brief overview of the trajectory of policymaking and legal measures for the protection and support of migrant workers in India, as background for the presentation and analysis of our research findings. We identify digitalisation and the creation of a database of unorganised workers as the key policy response to the Covid migrant worker crisis at multiple levels of government. In the next three sub-sections, we discuss three key policy initiatives for the social protection of migrant workers, based on our research findings. We summarise the design and implementation of these programmes, discuss the experiences of government and third-party

agencies in devising and operationalising these schemes, and assess their effectiveness in terms of registration of workers and delivery of benefits. The final sub-section brings together our insights on these social welfare initiatives and outlines the main contributions of the study to our understanding of labour welfare governance in India in the context of the digital turn.

### 4.1 PATHWAYS OF MIGRANT WORKER POLICY: BEFORE AND AFTER THE PANDEMIC

The Second National Commission on Labour Report (SNCL) in 2002 acknowledged the burgeoning ranks of unorganised workers in India and the continuing inability of the state to formalise their working arrangements or ensure their labour rights. In response, it recommended a policy shift toward the creation of a social security net and other welfare provisions for unorganised workers, rather than continuing with the earlier thrust on bringing them under the umbrella of formal labour regulation (Kumari and Naregal 2021). In the larger context of deregulation and business friendly labour laws, this shift also marked a departure from a rights/entitlements approach to labour governance in India, and a move towards a welfare-oriented approach.

The subject of labour falls in the concurrent list within the Indian federal structure. With both the central and state governments at liberty to legislate in this domain, the regulatory environment has long consisted of a multitude of laws and policies spanning different regions and economic sectors. Longstanding demands for rationalising and standardising the various labour laws were also acknowledged in the SNCL, which suggested the creation of national labour codes to provide a consistent framework for labour governance across the country.

This aim was fulfilled when four new labour codes—on wages, social security, occupational health and safety and industrial relations—were passed by the Parliament in 2020, despite criticisms voiced in the standing committee reports (Standing Committee on Labour, 2020a, 2020b, 2020c), by labour unions (WPC 2020), and by scholars and activists (Srivastava 2020a). Critics cited several problems with the new laws, including definitional vagueness, a complicated division of responsibilities between central and state governments, and excessive centralisation of labour governance (Roychowdhury and Sarkar 2021). The ability of the national labour codes to effectively standardise labour governance was questioned in part because of the contextual and sectoral specificities and variations across different segments of the labour market, as well as the diverse regional histories of social protection across and within states.

India's federal structure makes governance on matters on the concurrent list particularly complex, making the universalisation of social security for labour a challenging proposition (Srivastava 2020b). For instance, even as the policy thrust for labour has shifted from a rights-based to a welfare-based approach (Agarwala 2008), the implementation record shows great variation between states, based especially on their historical willingness to spend on welfare. Several states have many more welfare boards and policies for various segments of workers than others. Another issue is that while the centre passed the new labour codes in 2020, several states are yet to issue notifications for their implementation.

Despite the consistent presence of migrant and unorganised workers in the pre- and post-independence histories of labour in India, and a 'long-standing acknowledgement of migrant vulnerabilities and the barriers they face in accessing existing welfare schemes and rights-based entitlements', migrant workers have remained on the margins of policymaking, marked by an absence of 'political emphasis on the social, economic and political inclusion of internal migrants' (Naik 2024: 2). Legal protection for migrant workers was initially restricted to the Inter-State Migrant Workmen Act of 1979 (ISMWA), which stipulated the registration of firms employing and contractors employing or recruiting interstate migrant workers, as well as the registration of such workers. Under the ISMWA, contractors and employers are held jointly responsible for registering workers at both the source and destination states. The law also mandates the provision of travel allowance, displacement allowance, health facilities, and uniforms and protective gear to workers by the contractor and the principal employer. However, the responsibility placed on the labour contractor to provide allowances and register workers at both ends of the migration chain reduced the ISMWA to a statute on paper, with very poor implementation rates (Bandyopadhyay, Banerjee and Samaddar 2021; Mandal 2016). The ISMWA was subsumed under the new Occupational Health and Safety Code 2020, which raised the employment threshold required for the establishment and contractor to register under the Act from five to ten workers. However, most labour contractors we interviewed choose to register under a different law, the Contract Labour Act of 1970, which requires them to obtain licenses but to register only in the destination state.

Compared to the general inefficacy of laws that protect labour rights, the more significant legislation for the construction workforce are the Building and Other Construction Workers (BOCW) Conditions of Service Act and the Building and Other Construction Workers Welfare Cess Act, both passed in 1996. These laws provide for the collection of a cess on construction projects from companies to create a welfare fund for workers; the registration of BOC workers between 18 and 60 years of age, if they have worked in construction for at least 90 days in a year; and the provision of health insurance, pension, accident insurance and other social security benefits (depending on the specific state board under which they are registered). However, the distribution of benefits to registered workers by BOCW Boards (mandated state-level bodies responsible for providing specific social security benefits to workers) has been notoriously poor across most states (Buddhapriya 2021; Jha 2021). In addition, by most accounts, rates of BOCW registration of inter-state migrants is generally very low, because the Boards are under pressure to prioritise workers from their own states and due to the difficulty that migrants face in accessing benefits once they return to their home states (Srivastava 2020a). In the absence of a clear policy framework enabling portability of benefits across states, inter-state migrant workers are left outside the ambit of most social welfare schemes, thus constituting the most neglected segment for labour legislation (Deshingkar, Naik and Ahmed 2022).

It is against this general backdrop of lacunae in the policy and legal framework for the protection of migrant workers that new schemes and policy measures were introduced following the Covid-19 lockdown in April-May 2020 and the ensuing migrant labour crisis. The problems that have long plagued most BOCW Boards—low rates of registration (especially by interstate and short-term migrants) and underutilisation of the cess funds—were once again highlighted by the tragic predicament of migrant workers during the pandemic (Desai and Randeria 2020; Upadhyaya 2022). BOCW Welfare Boards came under scrutiny because neither they (as well as NGOs working with migrant workers) were

unable to locate and deliver relief efficiently to vulnerable migrants (Aajeevika Bureau 2020). For this reason, the main response of the central government to the migrant labour crisis was a policy thrust on the digital registration and enumeration of migrant workers. This response was embodied in the e-Shram scheme, which aims to create a national database of unorganised workers that will eventually connect them with various welfare schemes and benefits. Simultaneously, several state governments developed their own schemes for the protection and welfare of inter-state migrant workers.

The migrant labour crisis thus provided a window of opportunity to re-examine internal labour migration policies, triggering several initiatives by the union and state governments (Naik 2023, 2024). However, the multiplication of initiatives generated a complex and confusing social field of registration and digitalisation processes and welfare schemes that workers, employers and intermediaries find difficult to navigate—as we show in the subsequent sections.

### DIGITALISATION: A NEW PANACEA? 4.2

As noted above, the pandemic and the subsequent 'crisis of mobility' (Rajan, Sivakumar and Srinivasan 2020) led to a re-evaluation of the nature and effectiveness of social protection for the most vulnerable sections in the country and renewed engagements with the role of state and non-state actors in the organisation and delivery of welfare (Bhan 2024; Naik 2025). Informal labour and urban migrant workers received particular attention in these discussions, which spanned various levels of legislature and the bureaucracy, civil society organisations and the general public. Even while debates on mainstreaming migration within policy occurred within academic circles, the response of the state to the crisis has been described as 'disparate', in part because it was undertaken at 'multiple levels of government, across various sectors and involving multiple stakeholder types' (Naik 2024). Both the central and state governments introduced new schemes aimed at the protection and support of (especially inter-state) migrant workers and the provision of social welfare measures for this group. The central focus of policy responses on welfare over labour rights or entitlements is noteworthy here. Overall, the policy response to the migrant worker crisis after the pandemic has been characterised as lacking an integrated focus, in that it was spread over different scales of government and involved a wide range of actors (Naik 2024, 2025).

The absence of reliable data on inter-state migrant workers emerged as a fundamental issue behind the ineffectiveness of existing laws and state responses, hence policy responses at all levels focused on creating these databases by registering workers using digital platforms. The central government launched a 'mission mode' programme to accelerate the registration of construction workers under existing schemes, and later introduced e-Shram, the first national database for unorganised sector workers (also designed to facilitate the delivery of welfare benefits). At the same time, several state governments reinvigorated or initiated registration drives under their own portals aimed at tracking migrant workers. One objective of these initiatives was to enable data sharing across state and central government databases to ensure smooth delivery of welfare benefits to a perpetually mobile workforce. Digitalisation is a key element of these schemes, intended to resolve the long-standing problem of portability of benefits for internal migrant workers through the creation, verification and sharing of

databases between the central and state governments. The migrant labour crisis thus provided renewed<sup>1</sup> impetus to the digitalisation of labour governance in India, mainly through efforts at databasing.

The strong focus on the identification and tracking of migrant workers in this new policy framework builds upon and reflects the larger trend of digitalisation of governance and welfare provision in India, documented in a growing body of literature. These programmes are built upon the architecture of the Unique Identification (UID) or Aadhaar scheme, which has enabled the conversion of individuals into machine-readable data utilisable by state administration (Masiero and Shakthi 2020: 4; Masiero and Das 2019). Researchers have examined the implications of digital identification and tracking systems digitalisation for the delivery of welfare benefits and entitlements, especially for major social programmes such as the public distribution system (ration shops, or PDS) and MGNREGA (the national employment guarantee programme, highlighting problems such as exclusion of beneficiaries or technical and social obstacles to full coverage on the ground (Carswell and De Neve 2022; Chaudhuri 2022). The appearance of new classes of intermediaries who help beneficiaries navigate these systems has been a notable outcome of digitalisation (Chambers 2025; Chaudhuri 2019), one that we also encountered in our fieldwork.

Against this background, the proliferation of programmes and policies for the governance of migrant worker welfare at various levels, together with the digitalisation of social protection schemes (which has entailed an increasing dependence of state agencies on NGOs and other third-party actors for their design and implementation) has created a complex policy landscape. To assess the policy response to the migrant labour issue and the design and operationalisation of digitalised schemes, in this section we examine three initiatives: the Mission Mode Project and the e-Shram scheme (both introduced by the central government), and the Safe and Responsible Migration Initiative of the Government of Jharkhand. Below we provide a brief introduction to these three schemes, before turning to a detailed discussion of each in the following sub-sections.

## Mission Mode Project (2020)

In July 2020, the Ministry of Labour and Employment introduced a three-month Mission Mode Project (MMP) aimed at increasing the registration of construction workers under the state BOCW Welfare Boards (the numbers being abysmally low). The objective of the MMP was to address existing gaps by simplifying the registration and renewal process using digital technology linked to workers' Aadhaar cards.<sup>2</sup> Given a three-month implementation deadline, the project aimed to do away with the difficulties in registration by 'switching to fully online processes', such as online registration and selfcertification of worker status by individual workers. For this process, workers were required to furnish

Attempts at digitalisation of some aspects of labour governance had already taken place, most significantly for the Employees' Provident Fund Organisation (EPFO). Within informal labour, efforts to digitalize BOCW registration had started prior to the pandemic, and many states had started creating their databases as well. However, most of these initiatives were smaller in scale, slow paced and uneven in their overall implementation.

According to the definition given on the website of the Ministry of Electronics and Information Technology, a Mission Mode Project is 'an individual project within the National e-Governance Plan (NeGP) that focuses on one aspect of electronic governance, such as banking, land records or commercial taxes etc'. https://www.meity. gov.in/content/mission-mode-projects

their bank account and Aadhaar numbers (which are verified through linked cellphone numbers). The MMP also sought to use the state-level databases thus created to share data between state and central bodies. The registration data obtained through this exercise is intended to be used to link the workers to existing social security schemes in individual states, and the State Welfare Boards were instructed to pay the necessary fees or premiums for this from their cess funds. The project formally came to an end in October 2020. However, no data is publicly available on its implementation.

## e-Shram, 2021

E-Shram is an online portal for the registration of unorganised sector workers, aimed at creating the first national database for this segment of the labour force. Devised by the central Ministry of Labour and Employment in response to a Supreme Court order in the wake of the Covid crisis, it became operational in August 2021. The objective of e-Shram is to identify, register and track unorganised workers across the country by assigning them with unique identity numbers (different from their Aadhaar numbers). Another aim is to link worker IDs with various welfare schemes at the central and state levels, thereby facilitating their access to social protection and benefits. Any worker aged between 16 and 59 employed in the unorganised sector can register themselves on the portal and is eligible for an e-Shram card. As of June 2025, the e-Shram dashboard showed about 340 million registrations, indicating an accelerated policy push and considerable success in registering workers under the portal.<sup>3</sup> The total size of the unorganised workforce is estimated to be around 440 million.

Currently, e-Shram registration promises to provide insurance for death or permanent disability up to 200,000 rupees, accident/partial disability insurance up to 100,000 rupees, and a pension of 3000 rupees per month after the worker turns 60 years of age. The database is also supposed to enable the integration of social security schemes of the central and state governments for registered workers, since data-sharing between the e-Shram portal and various state and central bodies is envisaged.

After registration on the portal, workers receive an e-Shram card with a unique 12-digit number, which is supposed to provide access to welfare benefits under social security schemes anywhere in India thereby addressing the problem of portability. As of the writing of this report. e-Shram is integrated with 12 central-level schemes: five pension schemes,4 two life insurance schemes,5 two for health insurance, two for self-employment and financial development, and one each for PDS and housing. However, no further information is available about the progress of integration of e-Shram with other

https://eshram.gov.in/dashboard. However, this is the same number that was displayed two years earlier. According to reports, the dashboard has been dysfunctional since January 2022 (Dash 2022).

Pradhan Mantri Shramyogi Maandhan Yojana, Pradhan Mantri Kisan Mandhan Yojana, National Pension Scheme for Traders and Self-employed Persons, Atal Pension Yojana, National Social Assistance Programme (NSAP) – Old age Protection.

Pradhan Mantri Jeevan Jyoti Yojana, Pradhan Mantri Suraksha Bima Yojana.

Pradhan Mantri Jan Aarogya Yojana, Health Insurance Scheme for Weavers.

National Safai Karamcharis Finance and Development Corporation, Self Employment Scheme for Rehabilitation of Manual Scavengers.

Public Distribution System and Pradhan Mantri Awaas Yojana – Gramin.

social security schemes, nor about the technical or administrative modalities of implementing such integration(IMN 2022).



Figure 4.1. Image from e-Shram website

Source: https://eshram.gov.in/e-shram-portal

Safe and Responsible Migration Initiative (SRMI), Iharkhand, 2022

In addition to the central government's efforts to document and track unorganised sector workers, the governments of several states that send large numbers of inter-state migrant workers to other regions have formulated their own registration and welfare schemes (even before the Covid migrant labour crisis). Several states intensified earlier efforts to register migrants at source through panchayat-level registers. These initiatives too centre on digital registration on a portal, for which the worker must have an Aadhaar card, a mobile phone number, and often other documents as well.

Jharkhand's Safe and Responsible Migration Initiative (SRMI) builds on an older village-level programme to maintain local registries to identify and track migrants and connect migrant households to social schemes (Naik 2024: 9).9 Launched in early 2022, SRMI initially focused on increasing registration under the state's Shramadhan scheme for migrant workers, which had been in operation for several years. Upon registration, the worker receives a Shramik card, also called a 'green card', which includes the worker's Aadhaar number as well as a distinct Shramik registration number. We found that most of the work of registering workers on these various portals was sub-contracted to third-party agencies, both at the state level and in several districts of Jharkhand.

SRMI was designed and implemented by a consortium of third-party agencies, including PDAG (Policy and Development Advisory Group) Consulting (a private sector consultancy firm) and PHIA Foundation (an NGO), which coordinated with the Jharkhand state Labour Department. The programme was designed by a larger group that included the Center for Migration and Inclusive Development (CMID) and consultants from the Indian School of Business, Hyderabad, in consultation with state government departments. A key part of the programme was the Jharkhand Migration Survey

https://phia.org.in/project/safe-and-responsible-migration-initiative/

(JMS), funded by Omidyar Network India and carried out by PDAG. 10 SRMI (which was a time-bound programme) was embedded in the offices of the Labour Department in Ranchi, while the implementing NGOs maintained several district-level SRMI centres across the state. Another mandate of SRMI was to create an inter-state coordination mechanism to handle migrant worker issues. In addition, they established and ran 'migrant control rooms' and a migrant worker helpline. The implementation of SRMI is examined in the following sections.



Figure 4.2. Posters for Safe and Responsible Migration Initiative in a government office, Jharkhand

From a design perspective, the effectiveness of digitalisation is based on three interrelated processes: (i) the creation of usable data through the identification of workers, linking their Aadhaar numbers to this database, and the provision of a unique identity (Universal Account Number) for the portal; (ii) the mapping of rules and relevant authorities at the central and state levels for determining protocols for the integration of schemes, exchange of data, and standardisation of norms and benefits; and (iii) ensuring cross-linkages for benefit delivery by connecting existing welfare schemes with the database. Thus, the policy imaginary of digitalisation involves the smooth creation of databases; integration and sharing of data between state and central government agencies, at multiple levels; and the effective linking of welfare schemes across these sites and scales to ensure portability of benefits for inter-state migrant workers. However, our fieldwork uncovered several complications in these exercises. In the following sub-sections, we examine these issues under the rubric of three themes: experiences of databasing, the significance of third-party agencies in the design and implementation of digitalisation, and the outcomes of these processes and programmes for the delivery of benefits.

<sup>10</sup> https://pdag.in/labour-mobilities-and-future-of-work/

# 4.3 EXPERIENCES OF DATABASING

As noted above, the digital turn in labour welfare governance has been characterised mainly by efforts at databasing. However, even the first steps of creating a reliable database were met with several challenges, evident in all the three case studies.

In the case of the MMP, we found that the exact modalities, institutional arrangements and policy instruments to be mobilised to achieve the target were not specified. The Ministry's directive was rather general, stating that the MMP seeks to 'bring all of them [migrant workers] under the registration process by change of mindsets, simplification of processes, and adopting new technologies' (MoLE 2020: 7). The instructions for implementation issued to state welfare boards (SWBs) were also vague. For example:

SWBs will have to adopt the latest technology tools and switch to entirely online processes with supporting services of a call centre, toll free helpline numbers, missed call link forms, e-registration, e-renewal, DBT and do away with physical presence and manual data. All the delivery functions of the Boards to be switched to automated processes (MoLE 2020: 9).

Even five years after MMP was announced, we were unable to find any central level data on its implementation. State-wise data on the implementation of the project in Karnataka was also not available. Although a nodal officer had been appointed, neither the Labour Department nor the Karnataka BOCW Board provided us with any details about their implementation strategies or data on the MMP, despite repeated requests. In informal conversations, officials mentioned that registration numbers had improved in the state, but the increase was mostly due to the inclusion of more intrastate migrants rather than inter-state migrants.<sup>11</sup>

Critics of the MMP saw the move as a superficial and knee-jerk response. They pointed to lack of adequate technology, support or training provided to state BOCW Boards; the undermining of the tripartite structure of the BOCW Board by instructions to bring in external administrative actors such as the district magistrate for its implementation; and the short implementation deadline of three months, which would barely give the SWBs time to set up the necessary teams (NCC-CL 2020). As anticipated in this report, which was published soon after the MMP was announced, subsequent assessments found no credible evidence of its effectiveness. In his review of this data for the Karnataka BOCW Board, Upadhyaya (2022) observes that all the reports of the Comptroller and Auditor General (CAG 2020) published after the MMP was implemented noted the inability of the Board to provide any consistent data on the number of registered workers, renewals, or benefits distributed under individual schemes.

In the case of e-Shram, databasing met with difficulties at the levels of design, staffing, as well as integration of legacy data. Processes of both registration and updating were found to be tedious due to the poor design of platforms, inadequate technical literacy of staff and workers, and insufficient staff and resources within state agencies.

<sup>11</sup> These claimed improvements were evaluated as suspect in two scholarly assessments; see Upadhyaya (2022) for Karnataka and Shyam Sunder (2021) for India.

Poorly designed platforms accompanied by unclear instructions for entering information in the database created a lot of confusion. 'Sunil', (a data entry operator with SRMI) was unsure about the details to be filled in the various fields and the meaning of categories such as 'employer'. His confusion is understandable, since the realities of the organisation of informal work are not accurately reflected in the categories used in the database. For instance, the form does not include a column for labour contractor, but Sunil said that he might enter the contractor's cell number in the column for 'employer's contact number' (since the worker rarely has information about the principal employer). We also observed that several fields in the forms were left unfilled due to this confusion or lack of data. Sanjiy, a consultant for SRMI, stated that during the accelerated registration drive for e-shram in Jharkhand, a worker was considered a migrant worker if their temporary and permanent addresses were different. However, only about 8000 out of 96 lakh registrations were found to match this criterion, and even within many of these cases, temporary addresses were vague and unhelpful, like 'Tamil Nadu' or 'Karnataka'.

A larger issue with design is that the e-Shram portal is designed for self-enrollment and self-certification by workers, which assumes a level of digital literacy and access to technology that is largely absent amongst unorganised sector workers. This in turn means that workers must rely on intermediaries— NGOs, village level functionaries such as 'Shramik Mitras', 12 Common Service Centres (CSCs) or Pragya Kendras, <sup>13</sup> or small Internet shops—to complete the registration (see following sub-section). Several reports (e.g., Dash 2022) highlight the difficulties faced by workers trying to register for e-Shram, which requires an Aadhaar card, a functioning Aadhaar-linked cellphone number, and a bank account (also linked to an Aadhaar number and cell number). Although we found that many migrant construction workers do possess basic cell phones or smartphones and know how to use them for various transactions, communication and entertainment, they could not easily navigate complicated government portals and their stipulations.

In addition, it is not uncommon for workers to lose their phones or change their numbers, or to not have their own cell numbers. Yet digital registration systems such as e-Shram assume that most workers have a stable, Aadhaar-linked cellphone number. Although virtually all the workers we interviewed did have Aadhaar cards, if their phone number has changed since registering for Aadhaar and has not been updated (another tedious process), it becomes difficult for them to complete the registration processes for e-Shram, BOCW and similar portals. NGO workers interviewed cited this as a major hurdle in their

<sup>12</sup> Shramik Mitras are appointed by the BOCW Board to increase the registration of workers. There are five to six Mitras in each district of Jharkhand, who are paid 20 rupees for each registration and 50 rupees for providing scheme benefits, according to a BOCW Board executive in Jharkhand.

<sup>13</sup> Pragya Kendras are digital service points promoted by the central government's Digital India programme. To set up a Common Service Centre, one must apply for a license from the block office. The proprietor of a CSC in Jharkhand told Rohit that his job is to help village residents access benefits of various schemes, such as Mukhyamantri Sukhad Yojana (CM's Drought Scheme) and Ayushman Bharat Yojana (health insurance). He also assists villagers in applying for Aadhaar cards, registering in portals such as e-Shram, and obtaining important documents such as caste and income certificates. This interlocutor claimed that his role is only to submit the application, which is verified by the relevant government department. To make an Ayushman card, the applicant has to deposit 11 rupees, although the CSC charges 30 rupees (19 rupees being the service charge). However, we gathered stories from various places of CSC operators charging much higher fees for these services.

efforts to get construction workers registered for various welfare schemes. (The e-Shram system does provide a mechanism for registration without receiving an OTP on the registered mobile number, but we found that NGOs mainly utilise the OTP procedure in registering workers.)



Figure 4.3. A Common Service Centre in a Jharkhand village

Yet another problem with the design of the e-Shram portal is that for a worker to register and be eligible for benefits under the scheme, he or she should not be registered for EPFO (provident fund). This is because e-Shram is meant exclusively for unorganised workers, and enrolment in PF is taken as an indicator of organised sector or regular employment. Thus, workers who may have been enrolled in EPFO by previous employers, but who subsequently worked mainly in the unorganised sector (as was the case with several construction workers we interviewed in Bengaluru), would be excluded from e-Shram benefits. Although they had mainly been employed as casual contract workers and were not currently receiving PF benefits from their employers (principal or thekedar), by virtue of possessing a PF number they would be ineligible to register under e-Shram. Interestingly, several respondents told us that they had decided not to register for e-Shram because they believed that would exclude them from PF benefits—pointing to a certain level of knowledge about these schemes at least among some (mostly older) workers. The presumption in the e-Shram scheme of a clear and non-overlapping distinction between two categories of workers—unorganised and organised—belies the reality of employment conditions on the ground, forcing workers who slide in and out of the formal-informal hierarchy to navigate a treacherous policy terrain with little guidance.

Several existing initiatives at the state level were forced to sacrifice implementation efforts in the wake of the larger schemes (such as e-Shram) launched by the central government. Given the concurrent status of labour legislation in India, competing registration and digitalisation drives have meant that central and state agencies often find themselves at cross-purposes. The tussle between these agencies implies that the outcomes of digitalisation are often contested. Moreover, state governments are at liberty to introduce their own additional requirements and stipulations for registration under various central and state level schemes. For instance, the Jharkhand state BOCW Secretary explained that inter-state migrants who work in Jharkhand are registered only under the Shramadhan scheme and not under the BOCW board. The Jharkhand BOCW board only registers workers with their domicile in the state, effectively excluding long distance migrants. Similarly, 'Smita', an NGO representative, observed that in Haryana BOCW cards were not being issued to inter-state migrants because proof of domicile in the state had been made mandatory by the state government.

Further, state governments were given registration targets for e-Shram, leading them to formulate multiple strategies to meet them, including the deployment of community level workers for registration drives, as well as the sidelining of state-level initiatives. According to a Labour Department official, Jharkhand was given a target of 1.8 crore for e-Shram registration but had registered 1.91 crore workers. The Jharkhand state government began pushing local governments to increase e-Shram registrations at the cost of registrations under the Shramadhan scheme. An NGO working with the SRMI scheme was given the responsibility of registering workers on the e-Shram portal, in addition to their work on Shramadhan and BOCW registrations, but they had completed only 170 workers at the time Rohit (our research associate) visited one of their district offices in September 2022. The coordinator, 'Saurabh', told Rohit that they would have registered more workers, but the Labour Superintendent asked them to stop the work: Who knows what's going on in their heads!'

A consultant with Jharkhand's SRMI project observed wryly:

At the Tirupati Labour Conference, 14 the central government passed the whole responsibility to the state government to work on migrant workers' issues. On one hand, the central government wants to intervene in every matter in the states, but when it comes to migrants all the work is given to the states. They said they will share e-Shram data with the states and asked them to develop their own portals for labourers. Later we will be asked to integrate all those four or five portals!

One day, when Rohit was visiting the district office where registrations were being carried out, several field workers entered and placed bundles of migrant worker forms on the table of the data entry operator, Sunil. Sunil requested them to enter the data directly on the portal, but they refused, saying that they had no time L If data is supposed to be put on the portal, then why are we asked to fill a physical form first?, they queried. Later, Saurabh explained that these fieldworkers were employed by their 'CSO [civil society organisation] partners', to whom they outsource registration work because their team is too small to handle the work themselves. This example points to the multi-scalar and complex structure of project implementation in programmes such as SRMI, in which third-party multiple agencies and different kinds of actors are involved.

Under pressure from the central labour ministry to meet registration targets for e-Shram, state governments resorted to importing existing data from other schemes such as NREGA. The integration of legacy data into the e-Shram database, created for other purposes and with very different structures, resulted in complicated outcomes. 'Sanjiv', a consultant working on the registration drive in Jharkhand, described the resultant database as 'phygital'—a combination of physical and digital—and said that this practice led to duplication or incompleteness of data:

<sup>14</sup> https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1854749

There was an order from the central government to do 1.08 crore e-Shram registrations. To achieve the target, all kinds of methods were used. The data already available, like MGNREGA data, SHGs [self-help groups], Pragya Kendra [Common Service Centre] data, construction worker data, common service center data, and so on, was used.

The use of legacy data also has implications for inter-operability: the format in which data is collected for one scheme or programme may not be useful or comparable to the parameters of information to be entered for another scheme. The impacts of importing legacy data were also seen in the registration figures: Sanjiv noted that of the 96 lakh registrations done in Jharkhand almost 80 percent were of women, presumably because of the migration of legacy data from MGNREGS or SHGs. Apart from the problem of duplication, the use of legacy data may result in adverse consequences, such as in cases of death or when a worker already included in the database attempts a fresh registration. 'Jameel', an NGO worker interviewed in Jharkhand, noted:

When a worker dies, their card may still appear active online, but neither the worker's family nor the worker themselves may be aware of the card's existence. This occurs because older data is used to generate the cards, leaving workers in the dark about their registration status ... And when workers attempt to register, they are sometimes told that they cannot do so since they are already in the system. This has caused significant confusion, especially when workers are informed that they already have an e-Shram card but are unaware of it.

The lack of trained staff and inadequate technical literacy of government workers is another major issue that became evident during our fieldwork. Sanjiv spoke about the multiplicity of state and nonstate actors involved in the chaotic registration drive:

It was a multifaceted programme. People from all around—different organisations, NGOs, government departments, panchayats and SHGs—were working ... But it was difficult to train people. Didi log [women members of SHGs promoted by the Jharkhand State Livelihood Promotion Society] also did the work, but they were not trained. It was too complex and so many people were involved, it was difficult to say who was trained and who was not.

This lack of capacity and paucity of trained staff is illustrated by another example. Explaining the process of registering workers on the Shramadhan portal, NGO workers said that they had to fill up applications and forward them to the district administration. However, the district centres did not have enough staff to carry out this work at scale. When Rohit visited the district of an implementing NGO in May 2022, he found only three employees—a district coordinator, a field assistant, and a data entry operator. According to the coordinator, they had been given a target of registering 100,000 migrant workers, but in the previous six months had managed to fill up only 2000 forms and had completed even fewer entries on the portals. Of the filled forms, he said, 60 percent of the workers do not know which company or site they are going to work for.

Another set of processes necessary for the effective implementation of e-Shram is the mapping of schemes, rules and relevant authorities for the governance of migrant labour. The diversity of welfare boards across different states makes the standardisation of welfare provisions for any segment of

workers difficult, as individual states have incorporated provisions in response to mobilisation and demands made by workers from time to time. The reconciliation of central and state-level schemes has not yet taken place in regions where both are operational. For instance, accident insurance schemes of the central and state governments vary in terms of amounts, benefits and care provisions and it is not clear which scheme would prevail after integration of entitlements through e-Shram. At the NGO office, data operator Sunil was unsure about which government schemes to link to individual accounts on the portal—should the worker already be enrolled for schemes such as NREGA, BOCW or Ayushman Bharat for him to provide the linkage, or can they be registered by him if they are eligible but not enrolled? He showed Rohit several forms with many blank columns, explaining that he is also responsible for calling workers whose details are incomplete on the forms (another difficult, if not impossible, task).

An additional, and fundamental, issue is that e-Shram places the onus of registration on workers and does not assign any responsibility to employers. Much of this work is supposed to be carried out by state labour departments, which often outsource it to third-party agencies and NGOs, while labour contractors and employers are not required to ensure that workers are registered. Several workers reported that their thekedars had helped them open bank accounts so that their wages could be transferred directly or taught them how to check their accounts on their mobile phones, but no worker reported that their contractor had helped them to obtain e-Shram or BOCW cards or to enrol in any other schemes. Moreover, very few respondents reported any contact with NGOs or labour unions working to register workers. Mehrotra and Sarkar (2022) note that the

creation of this database could have been seeded with the establishing of employer-employee relations within the prevailing informal work arrangement. The informal sector, which accounts for 91% of the workforce in India ... is based on mystifying these relations and, in the process, bypassing employers' responsibilities as enshrined in labour legislations.

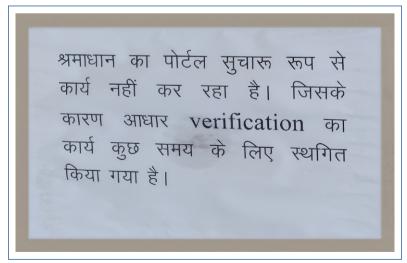


Figure 4.4. Notice of temporary suspension of Shramadhan portal, seen in a government office in Jharkhand

From the experiences gathered above, it appears that the process of creating databases, which has been the main thrust of digitalisation initiatives in labour governance post-Covid, has not eased the difficulties in access or transparency for workers to register for welfare programmes. While problems in design and implementation both contribute to these challenges, the neglect of existing complications in the federal nature of labour governance in the design of new schemes also emerges as significant.

### 4.4 MEDIATING WORKER WELFARE

As noted above, the urgency of digitalisation appears to have intensified the reliance of state governments on third-party agencies to develop and implement these systems, in part due to the paucity of technical expertise within most government departments and the intensive labour that is required to register workers, and partly to ensure that the databases are 'clean'. The lack of sufficiently trained staff also reinforces the government's increasing dependence on external agencies, consultants and other intermediaries for the design, creation and implementation of digitalised schemes. The increasing role of non-state actors—consultants, private firms, and other third-party agencies—in the design, creation and implementation of digitalised government programmes has been noted in other contexts (Froud et al 2017; Mayer and Philips 2017). We observed this pattern of 'outsourcing the state' (Kuriyan and Ray 2009) in the domain of labour governance and policy during our fieldwork. In both Karnataka and Jharkhand, we found that state labour departments had recruited service agencies, private consultancy firms and NGOs to carry out surveys and register migrant workers under their various schemes.

This multi-stakeholder approach to migrant welfare policy noted by Naik (2024) finds resonance particularly in Jharkhand, where the state's response to the Covid crisis was organised through what were termed 'convergence' teams—referring to a team of people representing organisations from the private and voluntary sectors, research institutions and government departments. In the case of Jharkhand's Safe and Responsible Migration Initiative, a consortium of third-party agencies was involved throughout the roll-out of the scheme, at all levels, from its conception and design to its implementation. A private consultancy agency designed the project, while most of the work of registering workers on the various portals was allotted to partner NGOs.

Employees of an NGO working on this project explained that their main tasks included: (1) to help register migrant workers with welfare schemes; (2) to build up a database on migrant workers by conducting a state-wide survey; and (3) to create an inter-state coordination mechanism to deal with benefit claims by inter-state migrant workers. At the district level, their main objective was to register migrant workers on the state's Shramadhan portal, for which they conducted an awareness campaigns. The NGO also formed 'village migration committees' at the panchayat level, which were supposed to facilitate the registration of migrating workers and connect these workers with various welfare schemes.

Another example is the Karnataka BOCW Board, which in its drive to increase registrations, has increasingly relied upon civil society organisations to register workers. When we first interviewed workers of the NGO 'MWW' in 2021, they said that their main effort was to register workers with the BOCW Board in Bengaluru. They acknowledged that the registration process had become easier after it went online but complained that each registration still takes half an hour to complete. First, they need to gather all the data from the worker, then input it in the system and submit the application online, after which an OTP is sent to the worker's cell phone for verification. This proved to be a particularly difficult stumbling block, since the worker's number may have changed from the time he registered with Aadhaar, or he may not have a phone. If this hurdle is crossed, the application is forwarded to the next level, after which a Labour Officer is supposed to visit the site to approve it. According to NGO workers we interviewed, construction labourers do not have the capacity to do all this themselves. They said that even gathering the required documents from workers is a challenge.

In Bengaluru, we also found that construction companies may engage with NGOs to facilitate their compliance with labour laws, especially EPFO. Several NGOs working for migrant labour rights have also stepped in to assist companies register workers with various welfare schemes, but even they face many difficulties with online registration processes.

Shifting policy priorities and the responses of funding agencies to these changes have creates a fluctuating field of operation for NGOs and other third-party actors, as signalled in the previous section. When we interviewed the head of MWW in Bengaluru, 'Swathi', for a second time in 2024, she told us that their focus had shifted from registering workers with BOCW to creating linkages for various entitlements such as ESIC (Employees' State Insurance Corporation, an insurance scheme), by registering them with e-Shram. This change in direction was due to pressure from funding agencies, she explained. Swathi appeared to be critical of this new focus because 'last mile connectivity' under this scheme (i.e., workers actually getting benefits from registration) was very poor: It is easy to enumerate workers, but now CSR funders only want the number of linkages,' she said, implying that their performance is assessed in terms of the quantum of workers registered as well as the number of linkages created in the database, rather than on their performance in helping workers access benefits. She also spoke about the technical difficulties they were facing in complying with these processes:

To make an e-Shram card the worker needs Aadhaar. If they do not have Aadhaar they need to go to a CSC to get it. Now e-Shram is mandatory to get BOCW cards in many states. Although they have reduced some of the formalities of registration, it remains difficult for inter-state migrants to get BOCW benefits. Registration has been made a bit easier, but availing of benefits is made equally harder. The benefits rejection rate is 50 percent.

Another complication in these developments in the governance of migrant worker welfare is that NGOs and other third-party agencies may create their own databases during the data gathering or registration exercises they undertake for state agencies. The implementing agency for SRMI in Jharkhand created its own, more extensive, form to be filled up by NGO workers while interacting with workers, which included details such as number of family members, number of male/females in the family, and so on. Sunil was sceptical about the feasibility of collecting such data and its utility:

Who makes such forms? How will a worker understand why we are asking all this? Many times, they don't respond properly. They will not understand what an Ayushman card is but just say that they have it because they don't know what else to reply!

Similarly, MWW workers in in Karnataka mentioned that they maintain the data of the workers they register in their own database, to enable them to track them. They also provide cards bearing the name of their organisation to workers, in addition to the identity card for the scheme. While the policy implications of gathering such detailed data are unclear at this stage, such efforts reflect the emerging valence of data and databasing within the digitalized ecosystem of migrant labour governance in India.

The implementation of worker registration programmes through multi-level outsourcing to civil society organisations and for-profit consultancies, and the crosscutting of various digitalised identification systems, seem to have hindered rather than streamlined the provision of social rights or welfare benefits to migrant workers. Next, we examine some of the experiences of welfare delivery we observed during fieldwork.

### ASSESSING OUTCOMES: MULTIPLE CARDS, LIMITED DELIVERY 4.5

In examining the outcomes of the digitalisation drives we encountered on the field, two stand out as most significant: the proliferation of different kinds of 'labour cards' and the inefficacy of welfare delivery mechanisms. In this section we discuss these findings.

The proliferation of schemes to identify and digitally register migrant workers, intended as a necessary first step to providing access to social protection and benefits, has created a complex policy landscape leading to the multiplication of registration schemes and of 'labour cards'. As noted above, e-Shram provides a card with a Universal Account Number (UAN), as do other central and state-level welfare schemes (with which e-Shram is supposed to be integrated), in addition to the near-universal Aadhaar number. It is unclear how these various forms of identification are planned to be linked or integrated in a way that will streamline welfare delivery. Further, workers' relation to, and understanding of, the various kinds of identification and labour cards that are circulating (and their supposed benefits) differs profoundly from how they are defined and understood by the state and its agents.

'Labour card' is a generic term commonly used (by workers and others) to refer to identity cards issued under various employment or welfare schemes. When asked if they hold a labour card, construction workers often showed us their gate passes for the work site (which are issued by the contracting company and are specific to the current job). When we enquired about what kinds of 'government cards' they possess, many mentioned ration cards, voter ID cards and/or Aadhaar. In response to specific questions about labour cards or worker ID cards, many cited the NREGA job card. This confusion around 'labour cards' is compounded by the fact that several states (such as Jharkhand) were already issuing migrant worker cards prior to the launch of the e-Shram scheme. Several workers from Bihar or Jharkhand mentioned or showed those cards when asked about their labour cards, rather than e-Shram cards. To complicate the situation, several NGOs working for the rights of migrant workers were providing ID cards to workers (as mentioned above).

Prasad-Aleyamma (2018), in her study of migrant workers in Kerala, points to the larger social and political implications of the issuance of ID cards to vulnerable and mobile workers. Although workers

may derive a sense of recognition and dignity from the possession of identity cards, 'this legitimacy is constrained by the premises of the state that are exclusionary and discriminatory'. Moreover, the 'devices for proving eligibility are also a means of enhancing the legibility of certain populations/ bodies' (Prasad-Aleyamma 2018: 200). While the possession of ID cards may provide workers with a sense of legitimacy and recognition even if they do not serve any practical purpose (Agarwala 2008), our interviews with construction workers in Bengaluru and Jharkhand indicate that ID cards such as e-Shram may not hold even this value for them. Instead, workers' narratives revealed confusion, indifference or lack of understanding of their labour rights or the benefits supposedly represented by these cards.



Figure 4.5. Various 'labour cards' in workers' possession

Individual and group discussions with male construction workers in Bengaluru showed that most were not aware of any or most of the schemes that are available to them as migrant or construction workers or the benefits they could provide. For instance, very few respondents were registered with the Karnataka BOCW Board, and most had not even heard of BOCW or knew about the benefits they could avail through BOCW registration. Several workers showed us their e-Shram cards, most of which had been issued in their home villages. Others were aware of e-Shram but had not registered for the scheme. All workers interviewed had no knowledge of the purpose of registration for e-Shram nor of any 'benefits' or 'uses' of the scheme. Yet, several workers had spent money to register for e-Shram, often obtaining them from Internet shops in their villages by paying fees of 50 or 100 rupees. They did so because the shop owners had convinced them that they would receive money after registering.

Compared to BOCW and e-Shram, more workers were aware of the provident fund scheme, EPFO (popularly called 'PF'), or the central insurance scheme, ESIC. Several reported that they had been enrolled in EPFO by a previous employer but did not know their PF numbers or how to access their accounts. A few workers believed that their current principal employer was cutting the contributions from their salaries and depositing the dues in their PF accounts.

However, construction workers' narratives indicate their lack of confidence in the state's ability to deliver welfare entitlements, and most do not look to the state to provide social security or support of any kind. For example, 'Vikram', who had been working in construction since 2005 and possessed several 'cards', including e-Shram, said that he cares only about getting paid on time. He claimed that he had never received any support or benefits from the government. Although he had applied for a BOCW card six months before, he had not received it. He was not registered for ESIC or PF, but he believed that if he were to be injured the company would 'take care of him'. Similarly, 'Charan', a worker from Bihar, said that he had gotten a 'labour card' made in his village a year before but he was not carrying it. His relative, a member in the village panchayat, had helped him to get the card, which lists his occupation as 'helper'. He also got an e-Shram card made from an Internet shop in the village. According to him, there is no point in carrying these cards since they do not give any benefits. 'Hamid', a worker on the Airport metro line, did not possess any labour card and felt that these cards are useless because they do not give any benefits. Although several of his friends had BOCW cards, they had not received any benefits, he asserted: 'If we don't get any money, why make the card?' Similarly, workers in Bengaluru who had BOCW cards reported that they had not received any benefits from the scheme, nor did they expect to.

Indeed, we gathered that the only social welfare benefits that workers have been able to access are the death benefits. A computer operator at the Jharkhand Labour Department described e-Shram as a 'death insurance card'. Similarly, an NGO worker with SRMI argued:

Only if someone dies are these schemes useful. The government gives 50,000 rupees in advance to the deceased worker's family to help bring their body back home. And after all the verifications are done, the family is given more money—1.5 lakh. But this benefit is difficult to get since it requires a lot of paperwork, and the family may not have the required documents. Another problem is that these deaths are usually shown as 'natural death' by the employer so that they can escape liability.

The world of cards in which workers are enmeshed also costs them workdays: several reported having to miss work to apply for cards or schemes, especially under pressure from panchayat workers. According to Sachdev, a worker in Jharkhand, whenever a new government scheme is introduced panchayat 'sevaks' inform the residents. They insist that they enrol in the scheme and obtain the new identity card made without explaining the benefits of the scheme. The panchayat sevaks insist that they must come and get their cards made, even if it means missing work, he complained. Sachdev asserted that had never in his life availed of any government scheme, illustrating his cynicism about such initiatives.

However, in response to our queries about enrolment in government welfare schemes, many workers mentioned NREGA and PMAY (Pradhan Mantri Awas Yojana, the central government's low-income housing scheme). These responses show that migrant workers' relation to the state stems mainly from their rootedness in their home villages and states, rather than any sense of identification as (always temporary) urban workers.

In contrast to the spotty coverage by welfare schemes, almost all migrant construction workers reported having Aadhaar cards as well as bank accounts in their villages (reflecting the central government's push for universal coverage by the UID programme and 'financial inclusion'. As noted above, construction companies require their labour contractors to send them lists of workers they plan to deploy on site, along with their Aadhaar card copies and medical certificates. But these documents can be faked, as we discovered from interviews with workers. All the workers we interviewed (several of whom appeared to be quite young) claimed to be at least 18, and some had created fake ID cards to show this, suggesting that they are aware of the minimum legal working age (even if it is not followed in practice). Several workers also displayed an awareness of other labour rights. For instance, we gathered stories about workers who changed contractors because they were not depositing their PF payments as promised.

Turning to the second major lacuna in the implementation of these schemes, we note that despite the government's emphasis on the digital registration of workers to expand and streamline the delivery of benefits, the persistent problem of portability has not been resolved. One issue is that progress in the digitalisation of existing records varies greatly across states. Second, the roadmap for portability, given the wide variations in schemes and their benefits and provisions, has not been clearly spelled out.

As noted above, the problem of (lack of) portability that has long plagued the disbursal of BOCW benefits is expected to be resolved by e-Shram, which promises to devise efficient mechanisms for data-sharing between the central and state governments. However, protocols for data sharing between the portal and other stakeholders are vague and confusing. From the guidelines, it appears that workers registered with e-Shram will receive not only an e-Shram card but also a state ID card, based on the domicile reported, which will be documented as a sub-field within the main e-Shram portal. When registering for e-Shram, workers are required to provide their current address reflecting the state where they are employed at the time. This information is supposed to be verified by both the home state and the receiving state (in the case of migrants), and the data is supposed to be continually updated in order for the worker to receive benefits. Given the high levels of mobility amongst construction workers, discussed above, their capacity to constantly update their addresses or other information in the system is highly questionable—especially since the scheme does not place any onus on employers to ensure that updates are done. This surmise is supported by the fact that earlier systems, such as ISMW and BOCW, which also attempted to capture the movement of workers at both ends (sending and receiving states), were unsuccessful—even after digitising registrations and introducing self-certification. In addition, state labour departments across the country are facing significant shortages of trained staff to handle these newer modalities of documentation and labour governance.

Thus, our fieldwork findings support studies that suggest that digitalisation, rather than enhancing transparency and efficiency in the provision of services, has magnified the contradictions and inequalities that are inherent in official identification systems through multiple forms of 'data injustice' (Carswell and De Neve 2022; Chaudhuri 2022; Masiero and Das 2019; Masiero and Shakthi 2020). This is a key dimension of post-Covid welfare and labour policies that require further empirical examination and theoretical intervention.

## 4.6 Discussion

Concrete data on several aspects of the implementation of the new welfare schemes for migrant and unorganised workers is yet to emerge, hence a detailed evaluation of their effectiveness is not yet possible. (For example, a page on the e-Shram website is supposed to allow one to download granular data on registrations, but it has not been operational for months.) However, based on our fieldwork findings presented in this section, we argue that while these schemes may have partially succeeded in creating datasets on migrant construction workers, their implementation has been ridden with inefficiencies and inconsistencies. Further, while programmes such as e-Shram may have created yet another kind of worker identity (Rajput and Rajan 2023), they have not yet translated into any substantial or accessible new benefits for workers. Nor has the inter-linkage of schemes yet been accomplished.<sup>15</sup> Although issues of exclusion and disempowerment are known to have plagued digitalised social welfare schemes, benefits and entitlements under programmes such as NREGA and PDS are at least reaching many beneficiaries. In contrast, schemes aimed at the welfare of migrant workers are marked by poor performance and outcomes, despite digitalisation.

The discussion of the implementation of migrant welfare schemes in this section illustrates the multilayered social field—consisting of state and non-state actors and various kinds of intermediaries—that has emerged to handle the expanding requirements for identifying and tracking migrant workers for welfare delivery. Moreover, from these accounts it appears that for government as well as corporate and civil society actors, social protection and welfare schemes for migrant workers have been practically reduced to registration in the relevant digital databases. Even this process has been troubled by the multiplication of registration portals and welfare schemes, lack of clarity on requirements and procedures, as well as overly complex registration systems. With the focus trained on simply registering workers, little attention is paid to how they might draw benefits from these schemes. The diminishing policy interest in these new schemes has already been noted by scholars: 'despite initial enthusiasm, there are signs that many initiatives have lost steam, as other policy issues have taken centre stage' (Naik 2024: 9).

The digitalisation of governance processes has been promoted to increase efficiency and transparency. The actual experience of implementation sketched in this section, however, suggests that these goals have not been met. Combined with the digitalisation of inspection and compliance requirements to be introduced under the new labour codes, the issues noted here may make programmes for the social protection of migrant workers even less workable and effective than they are at present, further weakening accountability.

<sup>15</sup> https://www.wiego.org/blog/registering-informal-workers-india-e-shram-opportunitylost#:~:text=E%2DShram%20is%20a%20portal,security%20schemes%20to%20these%20workers

Further, the friction between central and state welfare measures, discussed above, reinvigorates older debates about the role of federalism in labour governance in India and the implications of the centralising tendencies within labour governance, as seen in new initiatives for worker welfare such as e-Shram as well as in the new labour codes. How do states respond to these centralising tendencies, which are often pushed on state and lower levels of government in the name of digitalisation? In this context, it is unclear how state governments might imagine and implement their own initiatives, or how the contradictions between state policies and central directives might be resolved.

While the absence of data is understandably a significant barrier to welfare delivery, the exclusive focus on databasing leads to policy blindness to the multifaceted and dynamic processes that constitute migrant labour and migrant workers' lives, as well as the persisting problems in their governance—all of which cannot be addressed through digital technologies or centralized schemes. Sidestepping lessons from existing contradictions in labour governance in India might render digitalisation yet another myopic policy prescription, rather than improving the design and efficiency of welfare programmes. The implications of digitalisation and databasing initiatives on the ground, and their impacts on the social protection of migrant workers, require further elaboration and study.

# Conclusion

This section summarizes the key findings and contributions of the study and outlines its policy implications.

### 5.1 KEY FINDINGS

The study explored the constitution and functioning of value chains of labour supply in the construction sector in India, highlighting the ways in which labour mobility shapes, and is shaped by, the labour process. The research findings presented here, based on extensive interviews and discussions with thekedars, workers, supervisors, site engineers, managers and many other interlocutors, as well as observations at construction sites, illustrate the diverse ways in which informal labour relations and modes of organisational control are central to the long-distance labour supply system—marked by a constantly circulating workforce—within India's 'organised' construction industry. Against this backdrop, we argue that the evolving ecosystem of labour governance, centred on digital registration of workers and welfare provisioning through such databases, does not adequately engage with or account for the fluidity of this workforce. The existence of a workforce in flux, while central to the construction industry both for its functioning and capital accumulation, is rarely acknowledged as such—either in business or policy articulations.

In the preceding sections, we have tracked the structure and operations of labour supply chains, from real estate and construction companies through thekedars and other intermediaries to workers, mapping the contractual and informal relationships that connect and entangle these various actors. One aim of this exercise was to understand how and where value is extracted from the labour of construction workers and accumulated by capital—both corporate capital represented by construction companies and the relatively small (and still largely informal) enterprises of thekedars. The discussion of the business of labour contracting points to an incipient shift, as (bigger) thekedars are increasingly pushed to adopt 'organised sector' practices by state policies and initiatives (especially the digitalisation of processes such as tax collection)—underlining our argument that the 'formal' and 'informal' are not neatly distinguished in this context but are characterised by shifting forms and inter-connections.

A key insight of this study is that despite the widespread recognition of the precarious and unprotected nature of most construction labour, the production process on construction sites is structured around, and benefits from, a constantly fluctuating, mobile, unorganised, and temporary labour force. The systems of labour recruitment, deployment and control that hinge on informal labour market intermediaries (thekedars) are designed to accommodate this flux.

The study also shows that the highly mobile, informal and temporary labour force that has emerged to service the booming construction industry in India requires systems and practices that are not premised on organisational control and labour productivity as conventionally understood. Instead, labour mobilisation and management on construction sites continues to rely upon social relations rooted in cultural norms, social identity and a sense of belongingness emanating from the home regions and villages of workers—elements that thekedars build upon to cultivate the 'reputations' and relations of 'trust' necessary recruit, retain and manage workers. However, we found that these allegiances are increasingly dynamic and instrumentalised, suggesting a weakening of the relations of dependence and exploitation usually associated with labour contracting. This in turn provides some degree of autonomy for workers to negotiate their employment conditions and decisions.

Although the patronage relation that often characterises labour contracting appears to be eroding, the thekedar remains a crucial figure in the provision of labour to the construction industry. Consequently, construction companies (through their managers and employees) nurture relationships of reciprocity and mutual trust with labour contractors to ensure a regular supply of workers, while thekedars in turn cultivate relationships with managers to maintain a regular flow of work orders—strategies that we explored in the third section. By shifting focus from the relationship between labour contractor and worker to that between labour contractors and contracting companies, we uncover the close entanglements of 'informal' and 'formal' modes of employment and management in modes of labour exploitation and organisation. In section 4, we elaborated on these entanglements by delving into the labour process and modalities of organisational control on construction sites, highlighting the (often ignored) key role of thekedars and their supervisors in managing workers and the construction process itself. Thus, we contend that the production and deployment of a highly mobile and temporary workforce should be considered a central element of the business model of large construction companies and integral to the labour process itself, rather than representing constituting a 'legacy' system of labour recruitment that will eventually wither away as corporate and labour governance policies and laws evolve.

The account of labour contracting chains presented in sections 2 and 3 provides important background to our analysis of policymaking in section 4, where we examine government efforts to document, track and provide social protection to migrant and unorganised sector workers. After reviewing the fragmented and conflicted background of labour policy and legislation in India, we focused on the current thrust on digitalisation, arguing that it aims to strengthen the centralisation of welfare governance through data sharing and the subsumption of state-level welfare policies under central frameworks, although the new programmes lack clear guidelines or roadmaps to achieve either objective.

Our study suggests that the structure of construction labour supply chains in India has remained largely unchanged both before and after the pandemic. However, the crisis triggered by the pandemic led to policy interventions that resonated with efforts to extend social protection to informal workers across the developing world. India's e-Shram portal also emerged in this context, following a Supreme Court directive instructing the government to rapidly develop a mechanism for identifying and delivering welfare benefits to unorganised workers. A defining feature of these interventions—both in India and internationally—was the central role accorded to digital technologies in identifying beneficiaries and streamlining delivery. The effectiveness of such digitally mediated mechanisms, however, is heavily dependent on the existence of robust and regularly up7dated databases of target populations (Alfers and Jurgens-Grant 2023). In contexts such as India, where data infrastructure for unorganised workers was either absent or underdeveloped, the efficiency and reach of these delivery mechanisms were significantly compromised. The nascent effort to establish a comprehensive database of unorganised workers in India is, as our research shows, fraught with challenges. Thus, tying the implementation of welfare delivery systems too closely to this evolving database may be premature, in view of the persistent difficulties associated with its creation.

### 5.2 CONTRIBUTIONS OF THE STUDY

This study of construction labour in Bengaluru resonates with wider debates on informal labour and development in India. It challenges the assumption that economic growth and corporatisation automatically lead to formalisation of labour or enhanced welfare. Instead, it shows that informality and mobility are intrinsic to contemporary capitalism, and that governance frameworks must adapt to this reality. More broadly, the research engages with ongoing debates around labour mobility and capital accumulation in the global South and the incorporation of different forms of labour into global value chains. We argue that the production and deployment of a highly mobile and temporary workforce should be considered a central element of the business model in the construction sector and integral to the labour process itself, rather than constituting an external 'legacy' system of labour recruitment that will eventually wither away as corporate and labour governance policies and laws evolve. In this context, the study also contributes to discussions on the politics of data-based governance and the persistence of exclusion within welfare systems despite digitalisation.

Our research also engages with debates around the digitalisation of governance (specifically, of welfare schemes) by suggesting that the thrust on worker registration as a precursor to more expansive and efficient welfare provision, as it has developed, does not recognise or account for the shifting, diverse and highly mobile nature of the workforce that it seeks to protect. The new regulatory regime claims to offer a technological fix to existing problems of welfare delivery through the centralisation of data collection, management and sharing, and by routing benefits through this system. In its bid to digitalise labour governance, we argue, this policy framework fails to confront existing contradictions, lack of technological capacity and other governance-related issues with such systems. The findings of this study raise questions about whether state structures are adequately equipped to take on the task of effectively registering millions of workers and linking them to welfare benefits.

The research findings presented here contribute both empirically and conceptually to our understanding of the organisation of construction labour in urban India. By tracing contracting chains, mapping labour processes, and analysing welfare interventions, it highlights the embeddedness of informality within formal systems of production and governance. The findings suggest that policy must move beyond simplistic binaries of formal/informal, organised/unorganised, and migrant/non-migrant, to instead engage with the complex, dynamic realities of labour mobility. For workers who build India's cities, recognition, protection, and dignity remain elusive. Addressing this issue requires not only new policies but a reconfiguration of the very frameworks through which labour is governed.

### 5.3 Policy discussion

The persistence of precarity for millions of migrant workers raises urgent ethical and political questions. As India pursues an urban-centric development agenda marked by heavy investments in infrastructure development and driven by real estate interests, the security and wellbeing of migrant construction workers will remain a critical issue. Ensuring their rights and access to social welfare requires not only legal and technical reforms but also a shift in how the state, industry, and society value their labour.

The research presented here, together with other studies, suggest that the use of digital and identification technologies and registration programmes, on their own, may not enhance the efficiency or efficacy of welfare schemes. Instead, we suggest that the policy thrust on identification, registration and tracking of migrant workers has diverted attention away from developing more workable modalities for disbursing benefits (including addressing the issue of portability). The recent efforts to track India's growing mobile workforce raises broader questions about governance, surveillance and power in relation to labour in contemporary India, particularly in the case of unorganised labour.

Our study shows that the digitalised schemes introduced after the Covid crisis fail to reflect or consider the ground realities of employment and mobility patterns amongst unorganised workers. For instance, 'self-registration' systems such as e-Shram put the onus on workers (and intermediaries who facilitate this process) to pursue recognition and benefits, rather than placing responsibility on the principal employers—thereby reinforcing the pervasive informality of labour recruitment and employment and allowing corporates (especially in the construction sector) to continue evading responsibility for a large proportion of their workforces. Further, digitalisation individualises the worker, placing him in a oneto-one relation with the state, eliding the fact that their employment and mobility pathways are deeply embedded in, and structured by, social networks and hierarchical relationships that determine their mobility and access to work (as we show in this study). The near-total absence of the figure of the labour contractor, or thekedar, in labour policies and laws, is reproduced, magnified and entrenched in current welfare schemes for migrant workers.

An additional issue is that this digital transition has relied heavily on non-state actors, primarily private companies, with the outsourcing of the design and implementation of digital initiatives by governments. Various kinds of third-party agencies are engaged in developing new governance systems at both central and state levels to fulfil diverse digitalisation objectives. Despite the recruitment of external expertise, digital registration platforms often exhibit exclusion risks due to imprecise definitions, flawed classification codes, inadequate operationalisation of phenomena such as short-term circular migration, and insufficient attention to the specific needs of different segments of the labour force. These gaps may be attributed to the fact that IT and other consultants that undertake these projects are often unfamiliar with on-the-ground realities, or with scholarly assessments of the domain for which they are designing governance interventions.

Further, as other scholars have pointed out, the entry of private players in the 'datafication of the welfare state' is not an innocent exercise in improving efficiency but marks a 'qualitative shift that is inherently political in nature' (Dencik and Kaun 2020: 3). It alters the nature of welfare delivery, making it more individualised, conditional, codified, and disproportionately focused on inclusion errors (Masiero and Das 2019)—attributes that are all evident in the e-Shram model. The broader implications of databasing efforts such as e-Shram for privacy, surveillance, and other forms of data injustice remain to be fully understood

Our research points to other problems in the current policy framework for the support of migrant workers. First, the efficacy of welfare schemes is hampered by poor design of online platforms and software; inadequate technical literacy of government workers; insufficient staff and resources; non-portability of benefits; and the inability of many migrant workers to access the documents and technologies used by these schemes. Second, the implementation of welfare schemes and compliance with labour regulations are both heavily reliant on third-party organisations and other intermediaries, magnifying the scope for slippages or errors in data collection and entry. Third, we argue that the act of digital registration in the relevant database has emerged as a proxy for welfare itself, diluting the required focus on increasing the delivery of benefits. Finally, workers often find themselves lost amidst a plethora of 'labour cards', with scant awareness about their utility or unable to claim benefits.

At the process level, the digitalisation of labour governance has centred mainly on managing data and databases—specifically their creation, cleaning, and periodic updating. Notably, these efforts (particularly for BOCW registration) were already being pursued by states before the pandemic, but their implementation was slow and uneven. With the onset of the pandemic, the central government responded on two fronts: first, by accelerating existing initiatives through efforts to revitalize state-level BOCW coverage; and second, by creating a completely new database and platform for unorganised workers through e-Shram. These initiatives ran parallel to the efforts by several state government efforts to further develop and update their own databases and welfare schemes for migrant, unorganised, or otherwise unprotected workers. However, the central government's prioritisation of e-Shram led to diminished enthusiasm for state-level efforts and BOCW registrations, weakening welfare delivery efforts at the state level. Thus, digitalisation—even when limited to databasing—may be significantly influenced by centre-state relations, the concurrent nature of labour governance, and policy priorities. Such efforts, and their outcomes, cannot be understood independently from these political and administrative legacies.

These observations call into question the data-driven emphasis of programmes aimed at the registration and tracking of workers, which seems to draw attention away from efforts to enhance accessibility to welfare schemes and social protections. The complexity and potential internal contradictions of the various laws and policies aimed at bolstering the rights and welfare of workers, and the growing lack of clarity in the division of responsibilities between the central and state governments, may make basic welfare benefits even more inaccessible than it is at present, reinforcing the precarities and disadvantages faced by unorganised migrant workers.

To address these gaps and contradictions in welfare governance for migrant workers, the development of a concrete roadmap to create successful linkages between e-Shram and existing welfare and social protection schemes at state and central levels is the most urgent priority. Given that e-Shram's registration targets have been met in most states, the crucial factor in assessing the effectiveness of the scheme would be its ability to develop these linkages and foster portability. We suggest that to create this roadmap, the government should invite consultations with academics, civil society organisations, labour unions, bureaucrats, and others with expertise and experience in designing and administering social protection and welfare systems, rather than relying exclusively on technological solutions devised by private interests. Second, focus on the design of platforms that mediate welfare delivery, informed by in-depth studies and field trials, must be enhanced. Our fieldwork shows that design issues can lead to significant exclusions due to incomplete fields, imprecise categories or difficulty in navigating technical requirements. Here also, in-depth studies and wide-ranging consultations and experience-sharing workshops could improve the design and functioning of digital governance systems.

A third important avenue of policy research and formulation would be to explore how principal employers and labour contractors can be made more responsible for e-Shram registration or other aspects of labour governance and welfare. Modalities of introducing registration of their workers under relevant welfare schemes as a compliance criterion for both contractors and principal employers could be explored. As we argue in this report, anchoring welfare and protection schemes solely within the domain of the state and outside that of capital, individualising responsibility and placing the onus of registration on workers, is not an effective strategy, since it increases the strain on state capacity and absolves actors who profit from the labour of workers employed informally.

Fourth, the problem of inadequate digital literacy and digital exclusion of migrant and unorganised workers, noted above, must be addressed—given the shift of the welfare ecosystem toward technologymediated delivery mechanisms.

# DIRECTIONS FOR FUTURE RESEARCH

The findings of this study point to several important avenues for future research.

First, a larger comparative study of the implementation of e-Shram, across several states, would provide necessary insights into how different states are meeting the e-Shram targets, implementing data-sharing and portability initiatives, or operationalising other aspects of the scheme. Such a study could also explore how well the central scheme harmonises or connects (or clashes) with state-level policies and initiatives.

A second important avenue for future policy research and formulation would be to explore how principal employers and contractors can be made responsible for e-Shram registration and other social welfare schemes aimed at the workers they employ.

Third, research and policy thinking is needed to contribute to the formulation of more streamlined strategies for involving NGOs in registration work, given the difficulties NGO workers reported in managing the diverse stipulations they encountered across different states. Capacity building efforts could develop precise and effective training modules for service agents and other intermediaries such as shramik mitras, CSC operators and NGO workers, to help them navigate of platforms such as e-Shram and BOCW.

In conclusion, we contend that without building upon a clearer understanding of the realities of labour recruitment and management in this sector, social policies and welfare schemes for unorganised and migrant workers are likely to fail.

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11. Abstract :

The report presents the findings of a study of labour contracting in the Indian construction industry conducted between 2022 and 2024 in Bengaluru, Jharkhand and Bihar. The study demonstrates that large construction projects depend upon a fluid and constantly shifting labour supply system and that labour contractors form the pivotal link between 'organised sector' construction companies and unorganised migrant workers. The study also examined the implementation of post-Covid schemes for the protection of unorganised and migrant workers, which are found to be inadequate given the fluidity and mediated nature of the workforce.

## 12. **Keywords:**

construction industry, labour contracting, Bengaluru, Jharkhand, labour migration, unorganised workers, social welfare policy

13. Security Classification : Unrestricted