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Megaprojects, Mirages and Miracles: Territorialising the Delhi-Mumbai Industrial Corridor and state restructuring in contemporary India

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Abstract:

Large-scale inter-city infrastructure projects are proliferating across the Global South as industrial policy makers have used spatial planning to purposefully transform regions' economic and urban geographies. The Make in India policy and its promotion of industrial development corridors is emblematic of these trends, and this paper explores the relationship between this emergent national spatial vision, and the sub-national governance restructuring necessary for its implementation. We present primary research surrounding the implementation of the Delhi-Mumbai Industrial Corridor in Gujarat, and demonstrate that megaprojects present challenges that require sub-national governments to act in altered ways. They must be adept in the assembly and delivery of significant parcels of land, and in handling any political fall-out this generates. They must also make new arrangements and acquire competences to meet 'scaled up' developmental ambitions. Finally, they need to harness the legitimating power that corridors represent through their promises of connection, integration and growth. The Government of Gujarat has enthusiastically embraced the concept of the Delhi-Mumbai Industrial Corridor, turning spatial planning into a series of externally-marketed infrastructure investment opportunities. In pushing its pro-growth agenda, it has over-written earlier institutions focused on small-scale industrial development, but has not resolved underlying contradictions around land acquisition, or building consensus in support of its entrepreneurial vision. By focusing on this 'limiting case', we highlight the crucial role of the sub-national state in implementing infrastructure-led development, and the importance of building a contextually-rich understanding of its responses to the scaled-up demands megaprojects place upon it.

Key Words: Developmental State; State Rescaling; Land Acquisition; Corridor Development; Infrastructure; Regional Planning; Gujarat (India)

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I. Introduction: Corridor Development and State Restructuring

Expansive spatial plans underpinned by large-scale inter-city infrastructure projects have proliferated in the past decade across the Global South. Since the onset of the 2008 financial crisis a global growth coalition comprised of multilateral development banks, private firms and banks, intergovernmental organizations and powerful nation-states has embraced spatial planning (Schindler and Kanai, 2019). It is framed as the missing ingredient in earlier rounds of neoliberal reform that were geared towards rolling back the welfare state (i.e. "get the prices right") and establishing market-supportive institutions (i.e. "get the institutions right"). The spatial manifestation of these earlier rounds of restructuring was the proliferation of zones of exception, such as special economic zones, wherein it was supposedly possible to realize market-oriented institutions. This strategy consistently failed to catalyse a broad-based transformation of economy and society, and the overarching imperative of infrastructure-led development is to "get the territory right" on a much larger scale. To this end, post-war spatial planning strategies such as development corridors, growth poles and new towns have been resurrected to enrol vast spaces into "operational landscapes" that integrate commodity frontiers with the so-called "global factory" via standardized global logistics networks (Brenner and Katsikis, 2020; Mezzadra and Neilson, 2019; Moore, 2015; Chua et al., 2018; Buckley, 2009). The realization of new territories of extraction (Arboleda, 2020), dedicated nodes of production, logistical integration and new urban spaces such as socalled "logistics cities" (Brenner, 2019; Samaddar, 2019), necessitates state restructuring in order to facilitate the coordination of territorial transformation. These trends are evident in India, where the Government of India (GoI) has embarked on an ambitious project of territorial transformation whose aim is to foster export-oriented industrialization, accompanied by a round of state restructuring.

The GoI launched the Make in India initiative in 2014 "to transform India into a global design and manufacturing hub". It is an ambitious industrial policy that, among other things, leverages state-led spatial planning in an attempt to produce territory that can attract foreign direct investment and incubate export-oriented industrialization. The spatial component of the Make in India initiative is comprised of five Industrial Corridors and 21 'nodal Industrial Cities,' which integrate disparate urban agglomerations into expansive territories that can be seamlessly integrated with global production and trade networks. Our primary aim in this paper is to explore the effects of this re-emergence of India's centralized spatial planning and territorial design strategies on sub-national governance institutions. We argue that India's corridor development strategy signals a new phase in India's ongoing process of state restructuring that began in the 1990s (see Kennedy, 2014), and we seek to contribute to scholarship that has examined how it has unfolded in particular places (Datta, 2015; Anand and Sami, 2016; Sampat, 2016; Schindler and Sharma, 2017).

We focus on the Delhi-Mumbai Industrial Corridor (DMIC), which pre-dates but is embraced by the Make in India initiative, serving as a model for its other four corridors. At 1,500km in length, it crosses seven States³ and its proponents claim that it will attract over

² http://www.makeinindia.com/about

³ We use *States* to refer to these sub-national territories and their governments, and *states* (without the capital 's') for institutions of government in the more generic sense. The seven are Uttar Pradesh, Haryana, Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, and the National Capital Territory of Delhi (which has partial Statehood).

US\$100 billion of inward investment to a new generation of networked economic 'nodes' designed to promote the development of industry, logistics and real estate. It aims to transform the economic and urban geography of western India through a series of integrated new cities and industrial regions, all underpinned by extensive infrastructural investment in ports, airports and dedicated rail and road links that connect individual sites along the Corridor's length (Mukhopadhyay, 2018).

The extent to which this plan is realized will depend on the GoI's ability to coordinate complex inter-State projects, but also on the ability and willingness of sub-national governments to deliver territorial transformation. Our paper focuses on the latter, and argues that this requires State governments to step up to three primary institutional and political challenges. First, corridor development is about 'getting the territory right': as such, sub-national governments have to be adept in the assembly and delivery of significant parcels of land, and in handling the political fall-out this might generate. Second, these territorial visions require new institutional arrangements and competences: here, sub-national governments need to restructure institutions to match 'scaled up' developmental ambitions, ideally whilst building on their existing institutional capacity. Finally, territorial development schemes articulated by central government authorities are powerful legitimating devices, promising new geographies of connection, integration and growth. The pragmatic challenge here is not necessarily to meet these expectations, but to mobilize them as vehicles to pursue local goals and objectives.

In order to better understand how these challenges manifest themselves in India's federal system of governance, we ground our investigation in Gujarat, which has positioned itself strategically to capture inward investment and harness the potential of the DMIC. Gujarat is one of India's most industrialized States, and its government has carefully crafted a business-friendly image. Its State government has historically sought to attract investment by distinguishing Gujarat from other states and highlighting its entrepreneurial environment (Sinha, 2003). Its boosterism has continued in the context of the DMIC, making Gujarat a valuable 'limiting case' for Make in India's corridor-based development strategy. 4 Our original research focuses on the ways in which Gujarat's authorities and institutions seek to maintain this carefully cultivated image as a business-friendly destination, while they simultaneously adhere to the GoI's plans for the DMIC. In doing so, we draw on a range of documentary sources and on interviews conducted with a range of people shaping, and potentially affected by, the DMIC's implementation, conducted between April and August 2017. Our collection of documents centred around national and state industrial policy, supplemented by local commentary on the DMIC within newspapers and online. In total, 22 interviews were conducted (predominantly in Gujarati) with representatives of key state agencies designing industrial policy in the State capital, Gandhinagar, and implementing it in its Districts⁵ to understand the institutional changes at stake. We focused on one particular 'node' of the Corridor, the Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) in Dahej, to identify the impacts of these changes on a pre-existing industrial area:

⁴ Since Narendra Modi became India's Prime Minister, national visions of economic development have been increasingly been intertwined with the experience of Gujarat, where he was previously Chief Minister.

⁵ Districts are administrative units below the State level, on average encompassing around 2 million people.

here our respondents included residents and rural council leaders (*sarpanches*) alongside those managing and planning the expansion that the corridor aimed to deliver. ⁶

We begin by situating India's corridor development strategy globally, drawing on scholarship focused on emergent patterns of infrastructure-based integration. We then show how it signals a new phase in India's evolving process of state restructuring, highlighting how our three challenges have emerged from the contradictions of previous rounds of state restructuring. In section three we turn to Gujarat's development, first outlining the legal instruments and institutional arrangements through which it was able to accelerate industrialization under centralised planning, and then sustain this trajectory as economic liberalisation unfolded from the 1990s. We then examine how these instruments and arrangements have been realigned to match the scaled-up vision of the DMIC, before analysing their concrete effects on development within the Petroleum, Chemicals and Petrochemicals Investment Region. Finally, we use Gujarat's experience to draw out wider questions that are of importance in studying how sub-national governance institutions respond to centrally-driven projects of territorial design.

II. India's Corridors in Context: from Nehruvian to Neoliberal Spatial Planning

Neoliberal ideology became hegemonic within multilateral development institutions in the 1980s, and its adherents imposed a set of reforms on debt-distressed developing countries designed to "roll back" developmental states (Killick, 1995; Leys, 1996; Peck and Tickell, 2002). The objective was to establish "free" markets, but economic growth rates were disappointing in most countries that underwent structural adjustment. Development economists explained the failure of the first phase of neoliberal restructuring with a wideranging theory that posited certain market-oriented institutions as prerequisites for the realization of functioning markets (Acemoglu et al., 2005). This re-reading of history was reflected in the World Bank's (2002) so-called "good governance initiative," whose imperative was to implement market-supportive reforms and "get the institutions right" (Rodrik, 2006). Rolling out neoliberal institutions proved difficult, so in many instances policy makers settled for their imposition in spatially circumscribed zones.⁷ The proliferation of zones of exception was the spatial manifestation of the 'rolling out' of neoliberal policy, yet their developmental impacts were negligible and many became enclaves that were rather disconnected from their surrounding economies and societies (Ong, 2006; Ferguson, 2007; Frick et al., 2019).

Neoliberalism entered a new phase as a result of the 2008 financial crisis. The notion that institutional reform is the key to attracting foreign investment and fostering economic growth gave way to the return of state-coordinated spatial planning on a grand scale (Schindler and Kanai, 2019). The over-arching objective of post-crisis development policy is to transform territory in such a way that it attracts foreign investment and is thereby

⁶ Our analysis was given contextual depth through Mahadevia's extensive experience of Gujarat's planning and development institutions gained through three decades of research, policy engagement, and training of professional planners.

⁷ Here we refer to all manner of zones, such as special economic zones, free trade zones, export processing zones, etc.

integrated with global value chains. The World Bank's 2020 (pp. 51) World Development Report entitled Trading for Development in the Age of Global Value Chains notes that isolated places can reduce their "economic distance" from global value chains through investments in large-scale logistics infrastructure. Inter-city infrastructure investment was initially enabled by quantitative easing and low interest rates in the US, and currently a 'global growth coalition' "that includes multilateral development banks, multinational corporations, multilateral governmental institutions, consultancies and some of the most powerful governments in the world such as China and the United States" (ibid.: 2) has sought to encourage private capital to invest in infrastructure. The spatial manifestation of this round of neoliberal restructuring has been the proliferation of large-scale inter-city infrastructure projects worldwide and the emergence of vast "operational landscapes" (Brenner and Katsikis, 2020; see Mezzadra and Neilson, 2019) that integrate resource and agribusiness frontiers with dedicated nodes of production and value addition via standardized logistics networks (Arboleda, 2020; Danyluk, 2019)⁸. The design and production of territory on this scale is a "state spatial strategy" whose objective is "to bring state space more directly into conformity with the projected infrastructural requirements of capital circulation within global supply chains" (Brenner, 2020: 380). This necessitates state restructuring, and as we demonstrate below, it is not a straightforward process whose outcome is certain.

Neoliberalism's 'roll back' and 'roll out' phases, as well as the post-2008 emphasis on territorial transformation, are evident in India. The first generation of Indian leaders inherited a nation-state whose territorial integrity was enshrined in law, custom and popular imagination, yet the national space economy was highly imbalanced (Goswami, 2004). In line with best practices at the time (Friedmann and Weaver, 1976), the GoI aimed to reduce regional inequality by steering investment to lagging regions under the so-called Licence-Permit-Quota Raj. Significant investments were made in some of India's most 'backward' areas, such as steel mills in Bhilai and Rourkela (Levien, 2013), yet the realization of balanced regional growth proved illusory. A more immediate problem which provoked consternation among Indian officials throughout the Nehruvian period was persistent sluggish economic growth (Chibber, 2003). By the late 1980s India faced an impending balance of payments crisis and was forced to turn to the IMF for emergency assistance, and as a result India embarked on a prolonged process of neoliberal reform and market liberalisation in the 1990s (Jenkins, 1999; Corbridge and Harris, 2000).

Neoliberal reforms in India did not follow a clear pattern of 'roll back' and 'roll out,' but rather, there was a simultaneous dismantling of the Licence Raj and institutional reform. Kennedy (2014: 13) offers the most extensive examination of state restructuring in this period, which, she argues, was "an outcome of a combination of uncoordinated actions." Thus, rather than a deliberate policy of decentralization, "new regulatory arrangements deployed at various scales" created space for political elites situated at different scales to implement policy experiments. She highlights (ibid.: 71) the contested nature of state restructuring, as "States enjoy more policy scope but may not have the fiscal scope to make use of it effectively." Indeed, the GoI remained a key stakeholder that remained influential over the organization of national territory, and it undertook the most extensive infrastructure

⁸ The renaissance of 'development corridors' in planning circles worldwide is evidenced by over 50 corridors being planned in Africa alone (Enns, 2018)

project in the history of independent India at this time. An inter-city highway network linking Delhi, Kolkaka, Chennai and Bangalore, and Mumbai, termed the 'Golden Quadrilateral,' was realised from 2001-2012 in a series of phases which progressively introduced novel modes of state-business relations. Thus, rather than a 'big bang,' state restructuring in India was an iterative process in which entrepreneurial elites situated at multiple scales sought to redefine their relationship with one another and the global economy.

India's particular mode of state restructuring – uncoordinated, contested and iterative - shaped the emergence of state spaces whose primary manifestation was the proliferation of Special Economic Zones (SEZs). The SEZ Act was passed in 2005 by the Congress-led United Progressive Alliance (UPA) government, formalising a framework for SEZ-led industrial development introduced by the BJP-led National Democratic Alliance (NDA) government in 2000. That same year the GoI established the India Infrastructure Finance Company which provided preferential loans to private-sector developers who invested in infrastructure and SEZs (Rastogi, 2006). Indian SEZs included special governance arrangements allowing them to 'fast-track' development: they were typically managed by a Development Authority led by a high-ranking civil servant, thereby side-stepping requirements for representative local government enshrined in India's Constitution, as well as existing commitments to labour rights and environmental compliance. Thus, SEZs are centrally-sanctioned and New Delhi has produced a continually-evolving set of rules and orders for their governance (Jenkins, 2014), while State governments are key actors in their realization, both through the incentives they provide and their Constitutional responsibility for land governance. This framework resulted in the approval of a staggering 585 SEZs between 2006 and 2011 (Jenkins et al., 2014), which led to intense public scrutiny. Their requirements for land prompted growing anti-SEZ protests across India, and forced the Congress-led UPA government to prohibit forcible land sales and restrict the size of SEZs (2007). Further legislation was passed in 2013, which offered a range of protections against those adversely affected by SEZs (Jenkins, 2014; Bedi and Tillin, 2015). Furthermore, as was the case globally, SEZs failed to catalyze export-led industrialization: many were dedicated instead to IT and IT-enabled services (Jenkins et al. 2014), or were reliant instead on luxury real estate development for their wider profitability (Levien, 2011).

The GoI sought to remedy the developmental shortcomings of this first round of neoliberal state restructuring, through the resurrection of coordinated inter-State spatial planning. The Delhi-Mumbai Industrial Corridor (DMIC), announced in 2008, was this era's first development corridor and exemplifies this change. It was planned by a joint Indian-Japanese Task Force, whose concept paper (MCI, 2007) and subsequent presentations (DMICDC 2008; 2009) indicated the Corridor's headline aims: to double employment, triple industrial output, and quadruple exports within the project area. These ambitious objectives were to be realized through spatial integration via extensive infrastructure upgrades linked to earlier road development (i.e. the highway forming the northwest arm of the 'Golden

⁹ India's 73rd and 74th Constitutional Amendments, passed in 1992, required States to establish elected local governments for all rural and urban areas. But as Sood and Kennedy (2020) note, a loophole in these Acts gave State governments the power to declare 'industrial townships' under their direct control. In turn, this allows forms of entrepreneurial governance to be enacted that prioritise service delivery to rate payers over democratic inclusion and participation.

Quadrilateral'), and a new rail link, the Western India Dedicated Freight Corridor. Extending 150-200km on both sides of the Dedicated Freight Corridor, the DMIC embraces 13.8% of India's total land area and crosses six major States (Figure 1). Within this broad zone, a series of Investment Regions (minimum 20,000 Ha) and Industrial Areas (minimum 10,000 Ha) are planned, with public-private partnerships (PPPs) being the preferred model for delivery for each. Indeed, just as national guidelines were reducing the permitted size of SEZs, it was announced that the DMIC will include 'self-sustained industrial townships with world-class infrastructure' (MCI, 2007: 6) on an unprecedented scale. Furthermore, the GoI classified the 'logistics sector' as infrastructure in 2017, which meant that expansive inter-city logistics projects could obtain preferential loans from the India Infrastructure Financing Company Limited. 10

[Figure 1: The Delhi Mumbai Industrial Corridor in Gujarat about here]

[Figure 2: *The Institutional Structure of the DMIC* about here]

The realization of these imagined territories constitutes a new "state spatial project" that has necessitated a new round of state restructuring (Figure 2) (Brenner, 2004; 2019). As Anand and Sami (2016: 57) demonstrate, corridor-oriented state restructuring is neither a straightforward re-/de-centralization, but rather a "constant contestation and negotiation" surrounding regulatory authority and developmental visions. The apex authority (representing relevant national ministries and Chief Ministers of the States involved) and the DMIC Development Corporation coordinate investment while at the State-level, project approval land acquisition are managed by newly-established nodal agencies. This structure not only survived the change of national government in 2015, but was prioritized by the BJP-led National Democratic Alliance under Prime Minister Narendra Modi. Indeed, the emphasis on infrastructure-led development was supported by Modi's industrial policy agenda under his flagship *Make in India* framework, which places the DMIC as the model for the five development corridors that comprise the core of the GoI's territorially-oriented industrial strategy. The Modi government has sought to remove any blockages developers might face in the process of land conversion by tabling amendments to the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act (Ginwalla and Rabari, 2015a).¹¹

The straightforward planning logic that animates the GoI's development corridors stands in stark contrast to the complexity of state restructuring (Anand and Sami, 2016), and adds new dimensions to each of the three challenges for the sub-national state we outlined earlier. In terms of land delivery, States still need to assemble parcels of land, but these are both far larger than those required for many self-contained SEZs and are also located within a nationally-determined network of development 'nodes'. In terms of institutional arrangements and competences, State governments must undertake complex strategic planning, not only promoting private investment but also coordinating the local production of 'supply-chain' or 'logistics' cities (Gereffi, 2009; Samaddar, 2019), and their integration within inter-State networks. Finally, States need to engage with the GoI's overarching rationale of the corridor, using this to build legitimacy for accelerated development processes

¹⁰ https://pib.gov.in/newsite/PrintRelease.aspx?relid=173674

¹¹ During Modi's first term as Prime Minister, these amendments lapsed due to their non-acceptance in the Parliament. Nevertheless, they signal the Gol's ongoing commitment to industrialize at all costs.

that will inevitably produce losers as well as winners. In the remainder of this article we focus on these challenges through a grounded empirical enquiry in Gujarat, where the GoI's vision of corridor-led development becomes enmeshed with the State's long-standing aims of enhancing its industrial prowess both within India and internationally.

III. Grounding the DMIC in Gujarat

Building an Industrial Powerhouse

During the Nehruvian era, present-day Gujarat moved from being an undeveloped resource-producing hinterland of Bombay Presidency¹² to being one of India's most rapidly-industrialising States. By 1978, its per capita industrial investment outstripped the national average and strongly represented private and joint-sector enterprises, a change driven by two factors. First, Gujarat's bureaucracy was ruthlessly effective at targeting the 'Licence-Permit-Quota Raj', gaining inside information on national industrial plans and using this to prepare successful bids for centrally-supported projects (Sinha, 2003). Alongside this 'vertical' channelling of resources from New Delhi, Gujarat also developed capacity 'horizontally' within the State. Its Industrial Extension Bureau provided information for industrial investment, producing databases on potential entrepreneurs, industry-related information and acting as a repository for central- and state-government regulation. From the 1960s onwards, this information was used strategically to promote the development of industrial capacity in key sectors (such as chemicals, pharmaceuticals and electronics), a pro-active stance that marked Gujarat out from other States.

Gujarat also paid attention to local state capacity for industrialisation. Its District Industries Commission, the network of District-based offices established across India in the late 1970s to provide 'single window' support for small and medium enterprises (SMEs), was particularly strong and allowed small companies to benefit from the information flows described by Sinha (2003). These offices continue to provide capital investment subsidies and support for technological modernization and marketing for industries with capital up to US\$ 1.5 million (General Manager, DIC: interview, 04/05/17). The Gujarat Industrial Development Corporation (GIDC), established in 1962, supported this with delivery of physical infrastructure, building and managing over 200 industrial estates across the State that provided SMEs with serviced sites. GIDC's District-level branches coordinate closely with the District Industries Commission, enabling them to develop estates in response to local demands and capacities. This, along with the power to withdraw licences from industries that fail to undertake their planned activities (GIDC Pre-Allotment Manager: interview, 06/05/17), has helped to reduce vacancy rates and speculative holding of plots that are common problems of industrial estates elsewhere in India (Levien, 2013).

The final part of Gujarat's pre-liberalisation development model came through the relatively effective delivery of land for development. Industrial estates were established using the principle of eminent domain within the then existing Land Acquisition Act, 1894. The

 $^{^{12}}$ Statehood was conferred on 1^{st} May 1960 with the division of Bombay Presidency into Maharashtra and Gujarat.

landowners were paid compensation at either the official rate (recorded in an index used for charging stamp-duty at the time of sale) or at the last three years' average recorded market price of surrounding lands. This compensation based on *recorded* transactions was generally smaller than actual prevailing market rates, and enforced sale made livelihoods vulnerable, particularly for small and marginal farmers. In addition, those dependent on customary access to land-based resources such as fuelwood and fodder (including pastoralists) also lost this without compensation.

This development model resulted in growth focused on the 'Golden Corridor', the densely populated zone between Surat and Ahmedabad, but at the same time, deliberately aimed to expand industrialisation to other areas of the State. The spread of GIDC industrial estates (Figure 3) illustrates Gujarat's relative success in delivering a localised version of 'spatial Keynesianism' (Brenner, 2004), but research conducted over the 1990s noted that spatial disparities remained (Patel 1991; Hirway 1995; Mahadevia 1998) along with escalating social and environmental costs.

[Figure 3: GIDC Estates in Gujarat about here]

The institutional and legal infrastructure Gujarat had developed since Independence provided a springboard from which to capitalise on the changing national trajectory of industrial development that followed market liberalisation in the 1990s. As noted above, this required State governments to become more entrepreneurial in managing larger scale projects; to address the politically fraught question of land acquisition; and to project a developmental vision that would both attract investors and legitimise the inevitable disruption to local livelihoods that this would cause. Gujarat's response to all three challenges began with enthusiastically embracing the idea of SEZs in the 1990s, and has continued over the last decade through vigorous promotion of the DMIC (Table 1).

[Table 1: Speeding up and Scaling up Development Post-Liberalisation about here]

Over the 1990s and 2000s, Gujarat aimed to accelerate land conversion through a concerted programme of liberalisation. This removed restrictions on the conversion of agricultural land for industrial development (1995); allowed the sale and conversion of agricultural land previously redistributed by the State (1996, 2003); and then permitted the sale of government-controlled 'wastelands' to the corporate sector (2005). These changes have been effected through a combination of legislative amendments and policy change, but also Government Resolutions, executive orders that are largely protected from public scrutiny and debate in the State legislature. Opposition has been silenced by both the political dominance of the pro-reform BJP within the State, and its powerful legitimising strategy of linking ideas of industrialisation, development and regional pride (Asher, 2014; Sud, 2014a; 2014b).

With post-liberalisation development increasingly linked to wooing larger domestic and international investors, the State also needed to scale-up the forms of institutional support from the SME-focused GIDC and District Industry Commission. Accordingly, in 1995 Gujarat Infrastructure Development Board (GIDB) was launched to promote and market Gujarat as a global investment destination, facilitating public-private partnerships in infrastructure, and providing strategic direction for this investment. Gujarat also produced the first State-level regulatory framework for public-private partnerships formed to finance, build and operate large infrastructure projects, The Gujarat Infrastructure Development Act (1999).

The State stresses its own innovation here in extending these partnerships from established sectors (power stations, ports, gas and roads) to new areas including cities, airports and knowledge hubs (Government of Gujarat, 2009). The GIDB's strategic vision was expressed in the Gujarat Infrastructure Agenda (GIDB, 1999), updated via the Blueprint for Investment in Gujarat – 2020 (GIDB, 2005), that offered the State's first cross-sectoral plans for infrastructure development.

From 2003, these changes, and the underlying narrative of the State's economic dynamism, were supported by the biennial 'Vibrant Gujarat' global investor summits. Chief (now Prime) Minister Narendra Modi featured centrally at these summits, which provided a series of opportunities to broker new deals with investors, and to showcase increasingly grand initiatives, such as the Gujarat International Finance Tec-City, a mega-development aiming to be 'the first Financial Services SEZ in the country' (GIDB, 2015). Beyond these high-profile events, Gujarat's aggressive push for private investment in the era of neoliberal rollout produced statistics supporting its narrative of success. From 2004/5 to 2011/12, its GDP growth outstripped the national average, and it also captured 11.45% of India's private investment from 2002-13 (Sud, 2014b), an impressive figure given that it accounts for only 5% of India's population. It also led India's drive to SEZ-based development: its 2004 SEZ Act predated national legislation, and by 2010 it had allotted over 20,000 acres of land to 27 notified SEZs (Asher, 2014).

Critics would rightly note that these figures ignore Gujarat's less than impressive social development outcomes, ¹³ and reforms have not eliminated the need for bribery to clear bureaucratic hurdles, or for back-room deals to gain access to new investment opportunities (Boanada-Fuchs, 2015; Sud, 2014a): Gujarat may therefore be 'business friendly' in cultivating particular state-investor linkages, rather than 'market friendly' in the sense of openness and transparency (Sud, 2014b). However, by the time corridor-based growth emerged within Indian national industrial policy in the late 2000s, Gujarat had positioned itself as having the institutional and legislative framework, and the political commitment, to take full advantage of the DMIC's arrival.

The DMIC: Accelerating Gujarat's Developmental Ambitions

The geography of the Delhi-Mumbai Industrial Corridor provides particular benefits for Gujarat, with 38% of its 1500km length and four of the nine rail junctions on the proposed Western India Dedicated Freight Corridor falling within the State's boundaries. National plans also designated more project 'nodes' in Gujarat than any other State: four Industrial Areas and two major Special Investment Regions, Ahmedabad-Dholera Investment Region within which the new 'Smart City' of Dholera is the centrepiece (Datta, 2015; Sampat, 2016), and the Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) of Bharuch-Dahej (Figure 1). This locational advantage, coupled with its pre-existing investment and infrastructure-oriented model of development, primed Gujarat to respond quickly to the

¹³ The Gujarat Human Development Report (Hirway and Mahadevia, 2005) documents a post-economic reform growth pattern that favoured larger industries over SMEs; industry as a whole over agriculture; and ultimately valued economic growth over broad-based human development. This is reflected in a Human Development Index score (0.672 in 2018) which remains mid-ranking for India (Source: hdi.globaldatalab.org 'Subnational HDI Area Database': accessed 11/06/2020).

DMIC's arrival in 2007. Here we examine that response with respect to the three challenges infrastructure-led development poses: accelerating land assembly, matching institutional structures and competences to 'scaled up' entrepreneurial governance, and maintaining legitimacy through the corridor's developmental ambitions.

As noted above, Gujarat's approach to the question of facilitating land assembly for development had been to undertake a process of legal streamlining which was further continued for the DMIC by passing the Special Investment Region Act (2009). This established new Regional Development Authorities for each of the project's nodes which, like the SEZs that had preceded it, brought their entire areas out of the purview of elected local government, and under the direct control of a civil servant, the Development Commissioner. Importantly, land within its jurisdiction was brought under the Gujarat Town Planning and Urban Development Act, allowing the Act's Town Planning Scheme (TPS) to be used as a catalyst for land assembly. 14 Through the TPS, landowners provide the planning authority with the land necessary to provide core infrastructure (roads, water and sanitation lines) and public services (public transport, health and education), and are compensated for this through the eventual increase in value of their remaining plots (Mahadevia et al, 2018). This offers a win-win situation in urban expansion areas where land value appreciates rapidly, but where it does not, landowners suffer: they are forced to surrender up to 50% of their land, some of this immediately, which can undermine livelihoods particularly for smaller farmers. Since the economic reforms of the early 1990s, Gujarat has witnessed jobless growth (Hirway and Mahadevia, 2005; Hirway, 2014), making alternative employment harder for those displaced from agriculture. Bringing DMIC nodes under the TPS was thus a strategy that not only promised accelerated and cheap development of roads and infrastructure: it also deliberately avoided those provisions of the RFCTLARR Act that sought to address the wider costs of land conversion.¹⁵

Matching institutional structures and competences to the requirements of the DMIC was also rapidly addressed on paper by making the GIDB the corridor's nodal agency within the State, and establishing the Gujarat Industrial Corridor Corporation to lead project development work within the corridor. This institutional and legislative framework has been matched by a strong policy commitment to delivery, with Gujarat's Industrial Policy (Government of Gujarat 2009; 2015) consistently emphasising the 'Ease of Doing Business' in the State. Accordingly, it has further streamlined industrial approvals, suspended environmental clearance for IT/ITeS-based projects (2009), and created a Chief Minister's Cabinet Committee for Industrial Promotion and Monitoring (2015) to resolve any interdepartmental blockages to approval. This committee also has the power to 'sanction

¹⁴ This allows for land pooling and readjustment, while appropriating up to 50% of the land for public purposes. Land owners are compensated for the land appropriated but are also charged the expected costs of infrastructural improvement, the final balance being settled at the time the land parcel is brought into development by the land owner. As soon as the TPS is announced and its draft form approved by the State government, the planning authority takes away the lands marked to be developed as roads (for details see, Bellany, 2008; 2013; Mahadevia et al, 2018).

¹⁵ The TPS mechanism provides a revolving fund for infrastructure development, with up-front costs met from selling a proportion of the land retained by government (Mathur, 2013). Land within a TPS is purchased at official rates – usually significantly below market price – and the TPS mechanism does not involve the public hearings or environmental or social impact assessments provided within the RFCTLARR Act.

customised packages for industries in specialized areas and sectors covered under *Make in India* campaign' (GoG, 2015: 8), thus centralising control over critical investment deals.

To demonstrate its coherence of vision, the GIDB updated its *Blueprint for Infrastructure in Gujarat* in the light of the Corridor plan (GIDB, 2009), providing a comprehensive and expanded agenda for infrastructure-led industrial development in the State. This charts a coordinated, cross-sectoral plan encompassing power, water, roads and rail, and also new ports, airports and logistics infrastructure all linked to the DMIC. These proposals represent a trebling of the State's pre-Corridor investment plans to around US\$182 Bn, some 79% of which is to be under public-private partnerships. This investment is also spatially re-concentrated in the State's most developed areas. Over 80% of the Government of Gujarat's own funding for industrial nodes and SEZs falls in the DMIC command area, and spending on transport linkages also focuses on connectivity within the Corridor itself. The private sector is expected to make up a significant proportion of the investment, ¹⁶ and as a result the 'Action Agenda' prioritises building the capacity to develop public-private partnerships in new areas. If these plans are to come to fruition, significant buy-in from the private sector is required, making the promotion and support provided by the 'Vibrant Gujarat' investor summits vital to their success.

In this new institutional structure, it is clear that the earlier District-based and SME-focused structure of Gujarat Industrial Development Corporation offices and District Industries Commissions has been relegated to a second-tier implementing role. While their ability to physically plan new sites for industrial and infrastructural projects are useful onthe-ground support for the DMIC, Gujarat's entrepreneurial aspirations have clearly moved on from brokering deals between small-scale industrialists, investors and landowners. The critical state capacities required in an era of corridor-based development are those of turning macro-scale infrastructure planning into a catalogue of globally-showcased investment opportunities,¹⁷ and ensuring that the public-private partnership model through which these will be delivered can be rolled out quickly and effectively into all areas, even those not initially attractive to private developers.¹⁸ The Gujarat Infrastructure Development Board exhibits the single-minded commitment to this agenda that underpins the claims of one of its senior managers that Gujarat is 'mature enough to reach the project goals of the DMIC, far ahead of the other States involved' (interview: 06/05/17).

Maintaining legitimacy is the final task for this entrepreneurial state, and although Gujarat's Industrial Policy has consistently paid lip service to the idea of balanced and labour-intensive growth (and retained some resources to develop its smaller industries), it is clear that two key strategies dominate here, both increasingly interwoven with the Corridor. The first is outward projection of the State's success, and here the GIDB aggressively

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¹⁶ The composition of investment within projects mentioned as part of the *Blueprint for Investment in Gujarat 2020* varies greatly: government money heavily underpins transport infrastructure, but in SIR Dholera in particular, private investment is expected to outstrip that of the State by a ratio of over 100:1.

¹⁷ As Halbert and Rouanet (2014) note, transnational capital doesn't simply 'land' in locations because of their (de)regulation policies: opportunities have to be packaged and presented in ways that are legible and derisked to make them attractive to international investors.

¹⁸ In its 'Action Agenda' for the Government of Gujarat, the GIDB's *BIG 2020* report recommended modification of the Gujarat Infrastructure Development Act to allow direct negotiations with developers where a competitive PPP bidding process had not created interest. This would open the space for highly non-transparent deals between particular business interests and central figures within the Government of Gujarat.

promotes Gujarat to potential investors as capable of coordinating and planning infrastructure-based development across sectors and into the long term. Its updated *Blueprint for Infrastructure in Gujarat* thus self-consciously describes itself as "a comprehensive communication of the infrastructure development agenda of the State to the developer/financier/ external community" (GIDB, 2009: 21), a stance supported by the Vibrant Gujarat summits and the constant emphasis on the 'Ease of Doing Business' in the State. The second is the internal presentation of ongoing industrial growth as central to the Gujarat's standing within and beyond India, thus marking any resistance to it as disloyal. Accelerated development of and through public-private partnership-based infrastructure projects is presented as vital to this mission:

The State has initiated several projects which will re-define India's economic journey and will put the country on the high-growth trajectory. Projects like GIFT City, DMIC/DFC, Dholera SIR, other SIRs and other large infrastructure projects will help cement the strong image of Gujarat as one of the most progressive and developed states in the world.

(Government of Gujarat, 2015: 9)

Both strategies are made concrete through the DMIC, which is presented as an essential next step in Gujarat's evolution from building small-scale industrial estates and stand-alone SEZs, to delivering the integrated mega-projects envisaged within the Corridor's new generation of Special Investment Regions.

Miracle or Mirage? The Bharuch-Dahej PCPIR

To gain an understanding of the on-the-ground impacts of this strategy of speeding and scaling up infrastructure-led development, we turn finally to the DMIC's most developed node in Gujarat, the Bharuch-Dahej Petroleum, Chemicals and Petrochemical Investment Region (PCPIR). The exploitation of hydrocarbon resources off the Dahej coast began in the 1980s, and in keeping with the development model of the time, the Gujarat Industrial Development Corporation began the process of land acquisition and physical planning for a petrochemicals hub in 1992-3. Expansion to a second adjacent site followed in 1998, both of which were later granted SEZ status. The hub's anchor tenant is OPAL, an Indian joint venture company with the Gujarat State Petroleum Corporation as a partner, which has invested in a US\$3Bn plant to process crude oil. Taking advantage of the Dahej SEZ, the PCPIR was established in 2009, greatly expanding the area for development to 453Km². Chemical processing and related industrial usages were planned to make up 50% of the total land area, with the remainder dedicated to housing and services (Figure 4). The newlydesignated Gujarat PCPIR Development Authority was given control of this area, and immediately produced a plan incorporating industrial estates, improved port facilities and other infrastructure.

[Figure 4: The Bharuch-Dahej PCPIR about here]

The PCPIR thus had a clearly-defined industrial purpose of investment in core infrastructure and an anchor tenant in place, and could therefore be expected to easily adjust to the transitions of scale and speed expected of the DMIC. On paper this has happened: the GIDB now approves new developments put forward by the PCPIR Development Authority across the whole of the Special Investment Region, although in practice, the GIDC continues

to draw up detailed plans and gain environmental clearance for individual developments. Financially, however, the PCPIR has not received the same level of State financial support as Dholera, despite being the Special Investment Region initially prioritised in national DMIC plans. Planners we interviewed in the Gujarat PCPIR Development Authority noted that the Authority's requests for financial assistance from the GIDB and DMIC had not been successful. GIDB and DMIC believe that since the PCPIR is already growing, there is no need to 'divert' their funds away from the more difficult task of developing Dholera (interviews, 15/05/17, corroborating GIDB manager interview, 06/05/17), an argument that undercuts the logic of developing the Corridor as a growth engine.

Although the plan for the PCPIR is an integrated set of transport corridors, industrial and residential areas, the actual development of the region has been experienced by those living there as a much more piecemeal process: the original Special Economic Zone now has 100% occupancy, but other areas are far from complete. The PCPIR's territory incorporates 44 pre-existing villages, and beyond them lies a patchwork of farmland; fenced-off but undeveloped sites; one or two completed formal housing developments for industrial workers; and the labour 'colonies' that have been thrown up for construction workers. These last are collections of temporary shacks, without electricity or toilets (despite State requirements that these should be provided universally), and are occupied by the migrant labourers who make up the factory owners' preferred workforce.

For local residents, these changes have been experienced largely as a series of losses and broken promises. Within earlier development of the site's Special Economic Zones, some families were given permanent jobs in the new factories, but few have benefitted from this recently, and claims that 80% of jobs would go to locals are not being honoured. The panchayats (village councils) have had grazing land acquired by the state, and now that they have been amalgamated within the PCPIR, residents have lost their rural status and with it the ability to access key welfare programmes (such the National Rural Employment Guarantee Scheme). Residents can see some evidence of 'trickle down' of wealth from the development, in the form of new opportunities to rent houses to incomers, the occasional children's park built as part of industries' corporate social responsibility packages, or in the panchayats receiving some additional tax from the new residents. These benefits are, however, small compared to the scale of disruption: farming has suffered due to the unavailability of labourers and of water, meaning those who can are adjusting their livelihoods to land/labour brokerage, and renting rooms to temporary migrants. Although not yet an issue prompting social mobilisation, all respondents spontaneously mentioned concern about pollution, and a growing incidence of health problems, particularly cancer.

The GIDC already owned much of the land within the PCPIR, particularly the original SEZ areas that form its industrial core and other industrial estates (figure 4). Further development of townships and real estate projects beyond the SEZs was planned, using the Town Planning Scheme mechanism to deliver this. Appropriation under TPS would quickly deliver roads and key infrastructure, with private sector developers driving land assembly by purchasing the residual plots retained by farmers. In locations such as PCPIR, however, such developments may take decades to occur, given that these industries do not yet have the

¹⁹ As Anand and Sami (2020) note, the fact that Gujarat could insert Dholera as a new node into the DMIC's overall plans shows its strength and access to national government relative to other States in the corridor, such as Rajasthan.

potential to generate sufficient employment to bring residential and commercial development in the vicinity. In the interim, farmers are left with significantly reduced land parcels that are no longer of a size viable for agriculture, but also not yet of sufficient market potential for real estate development. Fourteen individual Town Planning Schemes have been drawn up for residential development, but only two industrial estates are nearing completion, and these are on the GIDC's existing land (Interview, Gujarat PCPIR Development Authority Planners, 15/05/17). Many landowners can point to land that has been acquired elsewhere in the PCPIR by the state, but not developed.

This process is strongly resented by farmers, one farmer's leader in Gujarat telling our research team that 'TPS is the biggest villain'. Farmer's agitations and land protests have followed, organised through the *Khedut Hit Rakshak Dal* (Farmers' Interest Protection Party): these have been lower-profile than those in Dholera and the protests that stalled the Mandal-Bechraji Special Investment Region near Ahmedabad in 2013, but were still ongoing during our field research in 2017. These protests have achieved some changes, both in reducing the proportion of landowners' original plot areas that need to be given up under the Town Planning Scheme, and in increasing the price offered to them for their land. More generally, farmers' protest has been against the use of the TPS which they see a mechanism of forced land acquisition that subverts the RFCTLARR. To this end, farmers within the PCPIR have approached the Gujarat High Court to challenge this link, eventually joining hands with farmers from Dholera in doing so. The Government of Gujarat's response has been firm: its RFCTLARR (Gujarat Amendment) Act of 2016 has stripped away most of the progressive elements of the national legislation, including the need for the State to gain consent of 80% of landowners for a range of broadly defined development projects. These specifically include 'industrial corridors set up by the State or its undertakings' (Langa: 2016; see also Rabari and Ginwalla 2015b), thus blunting further resistance from landowners.

Rather than epitomising success, the PCPIR story therefore exemplifies the partiality of Gujarat's model of industrialisation. The vigour with which this is being pursued says more about the lack of a functioning political opposition in the State than it does about consensus over either the model's aims or its processes. With resistance from famers growing, the government response has been to put pressure on those demonstrating, detaining their leaders and shutting protestors out from key events such as Vibrant Gujarat summits where the State's self-image is potentially at risk (Chakravartty, 2015; Jha 2017). For activist organisations such as the Gujarat Land Rights Movement, which helps to organise farmers and pastoralists around issues of land rights and land acquisition, Gujarat's 'business friendly' persona is only maintained through the use of force:

Gujarat is a police state. People don't want to recognize that. They use the colonial law Section 144 [of Unlawful Assembly] all the time – more than 5 people cannot gather together. They've detained and arrested the leaders many times. Medha Patkar [a renowned social activist] is not allowed to enter the area.

(Leader, Gujarat Land Rights Movement: interview, 09/06/17)

The Government of Gujarat's enthusiastic embrace of the DMIC has been a deliberate attempt to promote and extend a vision of the State's 'dynamism' and attractiveness as a destination for investors. Conspicuously absent from this discourse are some of the more inconvenient facts: Gujarat is amongst the States offering the lowest wages in India, and its

social development indicators stubbornly lag its much-vaunted industrial prowess (Shah, 2014). Not only this, but Gujarat still seems to be struggling to find an effective mechanism for the large-scale land assembly required by Corridor development, an absence which the PCPIR has only managed to gloss over because land for its industrial core was already under the GIDC's possession or had been acquired earlier under the SEZ Act. Against this backdrop, the restructuring of governance through the DMIC seems destined to compound the social and environmental inequity of Gujarat's existing industrial trajectory with growing spatial inequality. This is being driven through by a re-concentration of power at the State level, but the legitimating grand vision of industrialisation and economic growth remains an elusive hope. Not only is this dependent on the availability of private capital for large-scale investment, but as the ongoing land protests show, this is also a development model that is being contested from below.

IV. Conclusion

The DMIC is restructuring spatial development patterns in Gujarat, and our research indicates that this is achieved through forms of territorial governance that concentrate power at the State level. As noted above, Gujarat's post-independence SME-led industrialisation strategy ignored its own problems of social inclusion and environmental protection, but at least sought regionally-disaggregated and spatially-balanced industrial growth. The new geography of corridor-based development seems set to embrace and exaggerate regional inequality, rather than mitigate it, focusing investment in the 'nodes' of the DMIC. Whilst the 'Blueprint for Infrastructure Gujarat 2020' aims to provide an underlying narrative of functionally-linked spaces and infrastructure-driven development that justifies this change, the reality appears to be an exacerbation of spatial inequality. The PCPIR does not benefit from GIDB/DMIC funding and the Industrial Regions that make up the State's other DMIC nodes are 'not active' at the moment. As such, even within Gujarat, the comprehensive nature of the DMIC called into question: all attention and finances are centred on Dholera, an investment gamble which makes least sense in terms of the spatial logic of the Corridor, given the fact that it fails to build on the State's existing strengths. This reality prompted all of our respondents – from GIDC planners to farmers in the PCPIR command area – to comment that the DMIC, or even the freight corridor as its most obvious concrete manifestation, was largely irrelevant to them. This spatial unbalancing of Gujarat's economy is being pushed forwards by new forms of territorial control. The Corridor's Special Investment Regions are new 'spaces of exception': consistent with trends across India (Sood and Kennedy, 2020), their Development Authorities take command over large swathes of land formerly governed by municipalities and rural councils. The technocratic plans enacted by the Development Authorities are completely disconnected from existing land uses (and Master Planning processes: Anand and Sami, 2016), and offer residents no rights of representation.

More widely, Gujarat's experience illustrates three key challenges of 'getting the territory right' in response to the needs of corridor-based development. First, infrastructure-led development requires effective institutional and political arrangements for the delivery of

land for development, and within a federal polity like India's, this primarily becomes a key problem for the sub-national State. Gujarat had built a reputation for efficiently negotiating land purchase and sharing the costs and benefits of industrialisation through its earlier round of small-scale industrial estates. However, the changes in scale involved in extending this model of development to the far larger and longer-term development of the Corridor's nodes redistributes risk and costs onto existing landowners, and a consensual mechanism to secure large-scale land assembly still hasn't been developed. The Government of Gujarat's response has been threefold: promoting its past achievements in land management, continuing with aggressively pro-developer land legislation that has actively undermined key protections of national law, and demonstrating its determination to deal firmly with any dissent. The aim here has been to maintain its reputational capital as a business-friendly State: our case study area, the PCPIR, has managed to maintain the façade of 'scaling up' development only because two large industrial areas had already been assembled under the SEZ Act, and ongoing protest over its expansion shows that the underlying contradictions are far from being resolved. This experience suggests that the careful investigation of the political economy of land assembly and delivery – an established element of the debates on neoliberal rollout in India (Kennedy, 2014) - should remain a key element in the study of infrastructureled development.

Second, the need to respond to the challenges of 'scaled up' development requires new institutional arrangements and capacity. Gujarat undoubtedly had established the ability to broker local industrialisation based on small and medium-scale enterprises via its carefully-nurtured State-wide networks, the District Industrial Commission and the Gujarat Industrial Development Corporation. It was also quick to respond to the post-liberalisation need to attract inward investment by setting up the Gujarat Infrastructure Development Board. The articulation between these institutions following India's move towards infrastructure-led development is instructive. It is the GIDB that has been placed as the nodal agency for the Corridor's implementation, with the GIDC's experience in spatial planning being positioned as a technical support for the scaled-up ambitions of the Corridor and its new nodes. This hierarchy is underscored within Government of Gujarat's industrial policy: when this argues that Gujarat must further develop its state capacity, this is primarily seen in terms of facilitating the creation and management of public-private partnership vehicles that will help accelerate infrastructure-led development. These developer-friendly changes are going hand-in-hand with the short-circuiting of other vitally important elements of planning – including planning for social inclusion and environmental protection. The wider lesson here when studying infrastructure-led development is that we must pay attention not only to the governance arrangements of megaprojects as imagined from the top-down, but also to the historical evolution of their constituent institutions. Seeing how these interact, and how particular agencies and competences are valued or ignored, is key to understanding changing state capacity and its resulting responses to the challenges of 'getting the territory right'.

Third, large-scale territorial development plans can wield significant power as legitimating devices. Gujarat again has been quick to realise this, hyping-up an impression of the state's competence, and projecting this to a wider world. India is seeing an exponential growth of real estate investment and intensified inter-State competition to attract capital, and the industrial and IT jobs that might anchor it to particular places. Under these conditions, the management of mirages – through images portrayed by the Gujarat Industrial Development Board and the promotion of 'brand Gujarat' – is not just a distraction, but a key role of an

entrepreneurial State responding to the contradictions between market liberalisation, governmental ambitions, and their localised costs. Planning macro-scale infrastructure, and marketing and facilitating it as a series of investment opportunities, are now activities of central importance to subnational governments. A two-stage process of critique is needed here that begins by contrasting images of economic miracles with their delivery on the ground, where achievements of growing industrial output, still less spatially-integrated development, may be far-less impressive. Equally, however, we need to understand the strength the 'mirage' holds: when backed by a global growth coalition and a national development imaginary, it can provide a powerful means for an assertive regional government to hide or excuse the brutality involved in delivering land for industrial and real estate development.

Together, these insights contribute to scholarship on India's ongoing processes of state restructuring under its evolving market 'reform', and more widely to the growing international interest in infrastructural megaprojects. For the former, we have shown how the re-emergence of centralised spatial planning articulates with a global shift towards 'getting the territory right'. Gujarat's leading role within these changes, exploiting the discretionary policy space afforded to State-level governments in pursuit of its industrial vision, mean that its experiences are of value for those studying this latest phase of neoliberal development elsewhere in India. For the latter, we have highlighted the sub-national state as a key site of study. Spatially-coordinated megaprojects embody scaled-up ambitions, which in turn present new challenges of implementation that are felt particularly at this level. We argue that building a contextually-rich understanding of the sub-national state – of the strategies of its leadership, the evolution of its institutions, and of the contradictions they are left to resolve – is a vital task within research responding to the 'infrastructural turn' in global development agendas.

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