

An Analysis of ‘Migrant-intensity’ in India and Indonesia: Seeing Internal Migration Patterns through a Place-based Lens

Environment and Urbanization ASIA
8(1) 40–58

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of Urban Affairs (NIUA)
SAGE Publications
sagepub.in/home.nav

DOI: 10.1177/0975425316683861
<http://eua.sagepub.com>



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Abstract

Emerging economies are witnessing the large-scale movement of internal migrants. While the popular discourse on internal migration imagines migrants from villages flooding into the large metropolis, scholarship is increasingly emphasizing the existence of multiple migration pathways, as well as the emergence of more dispersed patterns of urbanization. To root these discussions in particular geographies, this paper introduces the concept of ‘migrant-intensity’ as an empirical way of understanding the places that experience migration in the most profound and transformative ways—where the challenges and opportunities inherent in transience and mobility are most apparent. Analyzing census data from India and Indonesia, we show that ‘migrant-intensity’—a measure of in- and out-migrant concentration—is highest in a diverse set of non-metropolitan spaces, including secondary and tertiary cities and ‘rurban’ geographies. We argue that migrant-intensity as an empirical tool can advance scholarship on complex migration patterns by identifying the places at the crossroads of migrant pathways. Moreover, it can help planners and policymakers to address unique challenges, opportunities and constraints of migrant-intensive places.

印度和印度尼西亚的“移民强度”分析：通过基于地点的视角考察国内移民模式

新兴经济体见证了国内移民的大规模流动。虽然关于国内移民的流行论调设想了大量移民从村庄涌入大都市，但是学者越来越强调存在多个移民路径，以及更加分散的城市化模式的出现。为了在特定地理区域内融入这些讨论，本文引入了“移民强度”的概念，通过经验来理解那些以最深刻和最具变革性的方式经历了移民的地方——在那里，短暂性和流动性所固有的挑战和机遇最为明显。通过分析来自印度和印度尼西亚的人口普查数据，我们阐明了“移民强度”——一个度量迁入和迁出移民集中程度的指标——在多样化组合的非大都市空间最高，包括二级和三级城市以及“郊区”等地理位置。我们认为，移民强度作为一个经验工具可以通过确定移民路径的交叉点，从而有助于学者开展对复杂移民模式的研究。此外，它还可以帮助规划者和决策者解决移民密集型地区的独特的挑战、机会和限制。

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Keywords

Internal migration, urbanization, India, Indonesia, migrant-intensity, mobility, places, geographies

Introduction

With over half the world's population living in cities and human mobility at a peak, urbanization, migration and their intersections are piquing the interest of policymakers, planners and researchers. While the global discourse on migration is heavily influenced by anxiety over migration across international borders, in reality the majority of migrants move within their countries of origin. In emerging economies—where large-scale, rapid structural transformation means workers are leaving agriculture for work in non-farm sectors—internal migration is a significant concern and a complex issue for the planning and management of places, particularly cities.

This paper seeks to make preliminary observations about the nature of internal migration in India and Indonesia, two Asian countries that compare well in terms of scale, regional diversity and governance challenges. We introduce the concept of 'migrant-intensity', by which a geographic unit is examined from the perspective of both in- and out-migration, and in terms of migrant share as opposed to absolute number of migrants. Migrant-intensity, we argue, is a lens that helps us understand those geographies that are experiencing migration in the most profound and transformative ways, and where the challenges and opportunities inherent in transience and mobility are most apparent. We propose 'migrant-intensity' as a methodological tool that can build on and reinforce recent scholarship that challenges traditional narratives around migration and calls attention to less examined places and experiences of migration.

The paper first introduces 'migrant-intensity' conceptually, but then puts it to the test to examine its possibilities: in particular, we analyze internal migration in India and Indonesia. Utilizing census data in India and a sample of census data in Indonesia, we look at recent migration in both countries at the district level.¹ Our results show that migrant-intensity in both countries is found in many unexpected locations—including secondary and tertiary cities and 'rurban' geographies—demonstrating the potential for this new framework to draw attention to places that may otherwise be neglected in the discourse on migration. A rich diversity of places are experiencing migrant-intensity—from rural migrant hotspots and small tertiary cities in India to centres of extractive industry and 'provincial primate' cities in Indonesia. We offer some preliminary hypotheses regarding the drivers of in- and out-migration in these districts and outline the unique considerations that might shape policymaking and governance in these migrant-intensive geographies.

Internal Migration in India and Indonesia

India

India officially recorded 309 million migrations in Census 2001 and 326 million internal migrants (NSS, 2010) in the last sample survey conducted in 2007–2008—over a quarter of its total population.² Internal migrants are guaranteed complete freedom of mobility under the Indian Constitution.³ Broadly, there is a trend of labour migration from the least developed and least urbanized states in the northern and eastern parts of the country—like Bihar, Uttar Pradesh, Madhya Pradesh, West Bengal and Odisha—to more developed and relatively more urbanized and industrialized states in the south and west—like Maharashtra, Gujarat and Tamil Nadu as well as wealthy agrarian states like Punjab (Bhagat, 2014). The trajectory of

migration from agrarian rural spaces to industrialized and urbanized spaces that offer non-farm employment is fairly well established (Bhagat & Mohanty, 2009). While the migration of young people seeking education and enhanced mobility within the educated middle class have also been notable trends in recent times (Kundu & Saraswati 2012), the mobility of low-income poorly educated migrants for the purpose of employment remains the most prominent feature of internal migration in India (Deshingkar & Grimm, 2004; Kundu, 2007).

The management of urbanization and migration, especially in large metropolitan centres in India like Mumbai, Delhi, Chennai and Kolkata, has been a matter of enormous concern (Kidambi, 2007; Sivaramakrishnan, 2014); however, Indian scholars have also been careful to point out that internal migration in India is often characterized by short-distance rural–rural movements. Rural–urban migration comprises only 22 per cent of total internal migration flows (Chandrasekhar & Sharma, 2014). Further, field studies have shown that other patterns of migration, including seasonal and circular migration, commuter migration and return migration are extremely prevalent; many scholars have criticized official statistics for failing to capture these (Agrawal, Chandrasekhar, & Gandhi, 2015; Deshingkar & Akter, 2009). Field studies also provide adequate evidence about the struggles of internal migrants in accessing decent work and living conditions in urban destinations and document the failures of omission and commission of the state in this context (Kumar & Ajay, 2015). Further, Kundu & Saraswati (2012) argue that capital-hungry metropolitan centres have become hostile to poor migrants. Therefore, there has been much introspection about the impact of internal migration on cities and towns from the perspective of urban governance and planning. In particular, there follows from the literature a need to understand what kind of places are becoming hotspots for migration and what role they play in these seemingly complex pathways of internal migrants.

While the rapid growth of metropolitan centres and large cities through a concentration of public and private investments characterize the colonial and post-colonial periods in India (Kundu & Saraswati, 2012; Sivaramakrishna, Singh, & Kundu, 2005), population figures from the most recent Census 2011 show that most cities of over 1 million people in India recorded a decline in the rate of population growth. Approximately 68 per cent of urban Indians now live in cities with populations of less than 100,000 and 29 per cent in cities with populations of less than 50,000. Khan (2014) observes a ‘metropolitan bias’ in the case of the Jawaharlal Nehru National Urban Renewal Mission—the Government of India’s most ambitious scheme for funding urban improvements across the country (2005–2015)—and calls for policymakers to address the potential of small towns. Furthermore, researchers who have ventured outside the strict Indian definition of the urban⁴ have found a highly dispersed pattern of urbanization (Denis & Marius-Gnanou, 2011). Denis, Mukhopadhyay and Zérah (2012) call this phenomenon of dispersed settlement agglomerations that appear to be neither dependent on a larger urban centre nor officially planned by government or private enterprise as ‘subaltern urbanization’; further, Mukhopadhyay and Zerah (2015) draw links between the emergence of such settlements—in this case, census towns⁵—and return migration and remittances from urban areas. Basis this literature, we surmise that internal migration and urban growth are likely linked in many complex ways, with non-metropolitan urban areas playing a significant role in migration pathways.

Indonesia

Spread over more than 17,500 islands, Indonesia is the world’s fourth most populous country, with a population of over 257 million as of 2015 (World Bank, 2015a). Over 58 per cent of the country’s population is concentrated in Java, which is about 7 per cent of its land area;⁶ this, in combination with its

archipelagic nature, poses a unique set of challenges to governance and economic planning. For instance, Dutch colonialists attempted to balance population concentrations by resettling landless farmers from fertile Java to the outer islands from as early as 1907. This programme became the Indonesian government's formal transmigration policy, which relocated nearly 2.5 million people between 1979 and 1984 (Sukamdi & Mujahid, 2015).

Internal migration has received far less scholarly treatment in Indonesia than it has in India. Much of the existing work on internal migrants focuses on issues such as migrant health and nutrition (e.g. Lu, 2008, 2010); migrant responses to the 1998 Asian financial crisis (e.g., Hugo, 2000 and Frankenberg, Thomas, Beegle, 1999); or the legacies of transmigration (e.g., Bazzi, Gaduh, Rothenberg, & Wong, 2016). The ways that migration shapes places of origin, destination or both have received less treatment. Importantly, analyses of internal migration flows have also been limited by a government definition of migrant that only considers inter-provincial migration—with migration across smaller geographic units omitted. And as in many other countries, demographic surveys and the national census 'systematically exclude the bulk of non-permanent movement' that includes seasonal and commuter patterns (Hugo, 1982).

Sukamdi and Mujahid (2015) suggest that long-distance migration—defined as movements between regional corridors—increased between the 1990s and the 2000s, perhaps fuelled by stronger transport linkages between provinces, while the number of short-distance migrations decreased. With nearly 5 per cent of Indonesians over the age of five moving districts in the short time span between 2005 and 2010, it remains a highly mobile country. They also acknowledge the existence of multiple pathways of mobility across space and time, despite the constraints in studying them.

Meng, Manning, Shi and Effendi (2010) demonstrate that inter-provincial migrants' experience of their destination—in terms of well-being, employment and income—is generally equal to or better than that of non-migrants. However, Satterthwaite and Tacoli (2003) in their research on rural and urban development point out that long-distance migrations require more resources; in this context, it is plausible that those who travel between provinces may have greater resources—and therefore experience better outcomes—than those who travel within provinces. A deeper investigation of inter-district migration is therefore required.

From an urban perspective, concerns about population concentration in Java are reflected in anxiety over the large population of the Greater Jakarta Metropolitan Region, or *Jabodetabekjur*,⁷ which crossed 30 million residents in total population in 2014,⁸ and the accompanying urban planning and management issues of this primate city, which accounts for over a quarter of Indonesian gross domestic product (GDP) (Rustiadi et al., 2015). It is unsurprising, then, that internal migration is popularly imagined as waves of poorly skilled rural migrants coming into cities like Jakarta and policy conversations around urbanization and internal migration have been dominated by the perceived imperative of de-congesting Jakarta. The city has instituted mechanisms to exclude migrants in the past; the city government had a 'closed city' policy in the early 1970s and in the recent past, only those with proper identity documents and permanent jobs have been encouraged to stay in the city (Meng et al., 2010).

Like in India, scholars have recognized alternate patterns of urbanization in Indonesia. Notably, Terry McGee's (1991) famous *desakota* hypothesis—translating to 'village-city'—was one of the earliest articulations of a developing world geography that was neither mega-city nor rural village. His hypothesis described 'regions of an intense mixture of agricultural and non-agricultural activities that often stretch along corridors between large city cores'. In recent work, McGee (2008) has focused on the expansion of the urban periphery away from city cores to encompass larger areas; he contends that this expansion is a process occurring 'throughout the urban system to the level of secondary cities'.

We allege that the ways that internal migration has been studied in Indonesia—the use of absolute migration numbers and a focus on inter-provincial migration—have reinforced the dominance of Java and Jakarta in the imagination of planners and policymakers. This notion is developed later in the paper.

The Case for Migrant-intensity

As we have shown, scholarship on these two countries—especially in India—has moved in the direction of recognizing the existence of multiple migration pathways, and offered a nuanced understanding of the process of urbanization, recognizing the emergence of a diversity of urban and ‘rurban’ forms. The intersection of these evolving threads of scholarship, however, is less explored. How should our recognition of multiple migration pathways alter our perspective on places—wherever they fall along the urban–rural continuum? And empirically, how might we identify the places that encounter and experience multiple migration pathways?

It is in this spirit that we propose migrant-intensity as a methodological tool. We understand migrant-intensity as a place-based characteristic, not an examination of flows, even though it may lead to reimagining the geographic, social and economic pathways of migrants. By looking at share of in- and out-migrants in total population—as opposed to total volume of migrants—we seek to focus attention on the places where migration features most prominently in social, cultural and economic life. By considering in- and out-migration simultaneously, we hope to open up a new space of inquiry, to examine places where all the forces and dimensions of migration collide, and where new questions about planning and governance—as well as society and economy—might emerge. Further, our definitional choice seeks to break down a dichotomy that understands origins and destinations as mutually exclusive places, instead imagining that the same place may contain both push and pull factors, for the same or different groups of people.

Methodology

For Indonesia, we utilize a sample of 2010 Census data to understand geographies experiencing high levels of in- and out-migration. The sample contains 10 per cent of those enumerated in each district (city or regency) across the country, and is made available by the Integrated Public Use Microdata Series (IPUMS).⁹ Two variables are utilized in defining migrants versus non-migrants: (1) the district where the respondent currently resides and (2) the district where the respondent was living five years prior, a retrospective census question. Migrants are defined as those for whom (1) and (2) are not the same—that is, those that have moved from one district (city or regency) to another between 2005 and 2010.

In India, analysis has been conducted using migration-specific D tables from the Census 2001 data, as detailed migration tables from the Census 2011 are still yet to be released by the Government of India. The Census of India defines a migrant in two ways: (1) by birthplace, that is, those who are enumerated in a place other than their place of birth, and (2) by last place of residence, that is, a person who is enumerated in a place different from where they were enumerated in the last census. We use the latter definition for this paper. In other words, we define a migrant as one who has moved residences between 1991 and 2001.

In both countries, we construct two list of districts—one ranked by share of in-migrants in total population and one ranked by the ratio of out-migrants to total population. We define ‘migrant-intensive’ districts as those that are in the top quintile of both lists—that is, districts that are serving as both top origins and top destinations.

There are a few constraints with the data that must be acknowledged. In the case of Indonesia, though our sample of census data is representative at the district level, it may not be representative of migrant populations in particular. It is possible that the sample over- or under-estimates number of migrants. Indeed, our analysis suggests a higher share of migrants in the total population than do other published estimates (e.g., Sukamdi & Mujahid, 2015). Nevertheless, we contend that our analysis is robust in determining ordinality, or ranking, of the districts based on in- and out-migration at the district level because of the large sample size. Our consistency checks at the provincial level ensure that ordinality of our migration estimates across the various provinces match with published census figures. The results, therefore, list migrant-intensive districts but not the specific shares of in- and out-migration as this would require complete census data, which is not publicly available.

In both countries, the data fail to capture short-term, seasonal, commuter or iterative patterns of migration. It is only possible to understand relatively permanent migration patterns from an analysis of these data. This is a chronic problem with migration data throughout the world.

Migrant-intensive Geographies in Indonesia

In Table 1 we present migrant-intensive districts in Indonesia applying the methodology described above. Of the 29 districts that qualify as migrant-intensive, 26 are classified as cities—*kota*—with the remaining three classified as regencies—*kabupaten*. Several other trends emerge from examining these districts, which are described in this section.

Table 1. Migrant-Intensive Cities and Regencies in Indonesia

Province	City (<i>Kota</i>)
Bali	Denpasar
Banten	Tangerang
Bengkulu	Bengkulu
Yogyakarta (DIY)	Yogyakarta
Jakarta (DKI)	Jakarta Utara
Kalimantan Tengah	Palangka Raya
Kalimantan Timur	Bontang
Kalimantan Timur	Balikpapan
Kalimantan Timur	Samarinda
Kalimantan Utara	Tarakan
Kepulauan Riau	Tanjung Pinang
Kepulauan Riau	Batam
Maluku	Tual

(Table 1 Continued)

(Table 1 Continued)

Province	City (Kota)
Maluku Utara	Ternate
Nanggroe Aceh Darussalam	Banda Aceh
Nanggroe Aceh Darussalam	Sabang
Papua	Jayapura
Riau	PekanBaru
Riau	Dumai
Sulawesi Tengah	Palu
Sulawesi Tenggara	Kendari
Sulawesi Tenggara	Bau-Bau
Sumatera Barat	Bukittinggi
Sumatera Barat	Padang Panjang
Sumatera Barat	Solok
Sumatera Barat	Payakumbuh
Province	Regency (Kabupaten)
Papua	Nabire
Papua	Jayapura
Riau	Siak

Source: Authors' estimation according to sample of 2010 Indonesian census data, provided by Integrated Public Use Microdata Series (University of Minnesota).

The vast majority of these migrant-intensive cities and regencies have been experiencing high levels of economic growth that exceed the national rate. Calculating average rate of GDP growth over the most recent multi-year period for which data are available, we find that the local economies of these 29 migrant-intensive districts are expanding at an average rate of 6.8 per cent per annum in real terms¹⁰—compared to a national growth rate of 5.6 per cent during the 2010–2015 period (World Bank, 2015b).

Four regional corridors or clusters of migrant-intensity emerge when examining these districts geographically: West Sumatra, Riau (including the Riau Province and Riau Islands Province), the eastern coast of Kalimantan, and Central and Southeast Sulawesi. Interestingly, as the following paragraphs explore, Java is largely absent from Indonesia's cohort of migrant-intensive districts.

The Absence of Java

In Indonesia, one of the most striking patterns among migrant-intensive districts is their location outside of Java. Only three of the 29 districts that we classify as 'migrant-intensive' are located on the island of Java.

These findings stand in stark contrast with earlier studies of internal migration in Indonesia. For example, Sukamdi and Mujahid (2015), examining inter-provincial in-migrants in each province as a share of all inter-provincial migrants, place four Java provinces among the top five. We hypothesize two

reasons for the divergence between our findings and other literature on internal migration in Indonesia: First, most studies of internal migration have either examined total volume of migrants or analysed a particular migration path (e.g., migration to Java) as a share of all migration. It is unsurprising that Java witnesses the largest migrant flows of any place in Indonesia, simply because of its volume of people; nearly 60 per cent of Indonesians live in Java. Second, most studies have relied on the government definition of internal migrant—which only includes inter-provincial migrants. Given Java’s infrastructure and connectivity, movement between the island’s five provinces is highly accessible and extremely common. For example, Greater Jakarta—or *Jabodetabekjur*—is spread across three different provinces. In essence, both migrant volume—as opposed to share—and inter-provincial migration—as opposed to inter-district—are methodological choices with built-in Java biases.

Of the places in Java that do appear on the list, expanding areas on large city peripheries (e.g., Tangerang) are drawing middle-class migrants and industrial workers from the city centre, and inner-city districts with large informal settlements (e.g., north Jakarta) are still absorbing poor, unskilled migrants from rural areas. Yogyakarta, meanwhile, is migrant-intensive due to its numerous universities that pull students from across the country.

The Dominance of Small Cities

Of the 26 migrant-intensive cities (*kota*) in Table 1, 19 have populations of less than 500,000 people and 24 are home to fewer than 1 million inhabitants.¹¹ The majority—15 of the 26—host populations between 100,000 and 500,000 residents (see Figure 1). This finding complicates the way migration has historically been understood and examined. With ‘migrant-intensity’ as the lens, larger urban agglomerations are overshadowed by smaller secondary and tertiary cities in the internal migration story.

For example, some of the ‘migrant-intensive’ cities we identify in Indonesia may be hubs for temporary and circular migrants. If the small city maintains strong linkages to a rural hinterland, then

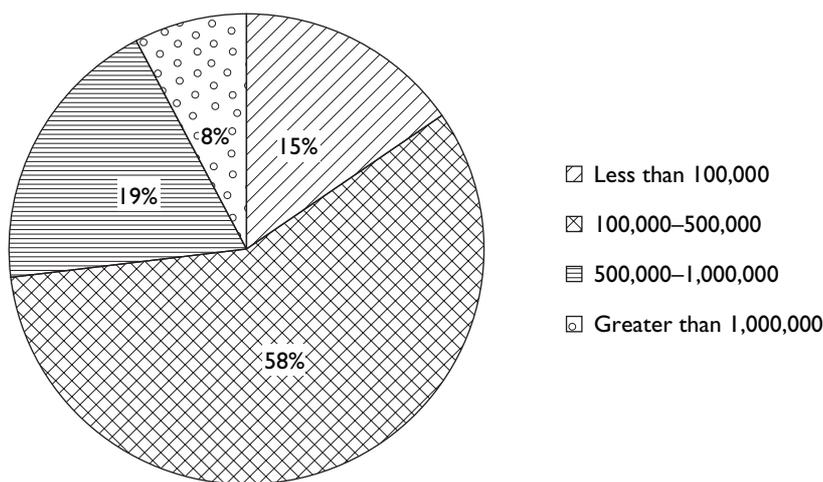


Figure 1. Size of Migrant-intensive Cities in Indonesia (2010)

Source: Indonesian Census (2010), Badan Pusat Statistik.

households in these surrounding areas may see the city as a source of non-farm income, where a migrant can work for a short period of time before returning home. While our data do not capture temporary migration, it is possible that migrants who begin as temporary or seasonal eventually put down roots in these small cities.

Another possibility is that small cities are serving as ‘way-stations’ for internal migrants—a first (or second) port-of-call for those who will ultimately travel from rural area to large city. In this scenario, small cities may be enabling young people to gain educational qualifications, skills or labour market experience that serves as an asset in a large city job market. In any case, the findings suggest that small cities must receive more attention from researchers and government in their efforts to manage migration flows and provide services and opportunities to internal migrants.

Centres of Extractive Industry

Several of the districts that emerge as ‘migrant-intensive’ are also centres of extractive industries. Cities and regencies in Papua, for example, have some of the highest shares of in- and out-migrants. Sulawesi, the eastern coast of Kalimantan, and Riau also host several migrant-intensive geographies. These are all centres of economic activity that are heavily influenced by or dependent on natural resource extraction. For example, in the province of Papua, mining and quarrying made up 32.6 per cent of provincial GDP in 2015 (Provinsi Papua Dalam Angka, 2016). The eastern coast of Kalimantan, including both the provinces of East Kalimantan (*Kalimantan Timur*) and North Kalimantan (*Kalimantan Utara*), hosts large oil reserves. Riau contains petroleum, natural gas, rubber, palm oil and fibre plantations, and the provinces of Central and Southeast Sulawesi (*Sulawesi Tengah* and *Sulawesi Tenggara*) are hubs for gold and nickel mining.

The relationship between extractive industries and migration is not as simple as the movement of workers for jobs in and around mines. Most extractive industries are highly capital-intensive and do not directly generate employment on a large scale. For example, while mining and quarrying comprise nearly a third of Papua province’s GDP, only 0.8 per cent of the province’s workforce is directly employed in those industries. Nevertheless, the infusion of wealth generated through natural resource extraction has spillover effects on local labour markets—spurring economic activities that revolve around construction and provision of services. Indeed, between 2012 and 2015, the construction sector in Papua grew at an average rate of 11.3 per cent per year, the hospitality sector at 9.9 per cent, and wholesale and retail trade at 8.7 per cent (Provinsi Papua Dalam Angka, 2016). Our local sources hypothesize that investments in ancillary industries (M. Kusumwijaya, personal communication, 22 September 2016) result in migrant-intensity in cities such as Jayapura (Papua), Kendari (Southeast Sulawesi) and Samarinda (East Kalimantan), each the capital and largest city of a province that is enriched by natural resource extraction.

Provincial Primate Cities

While policymakers and academic literature have recently shifted their gaze from Jakarta to large secondary cities like Medan, Makassar and Surabaya (e.g., Meng et al., 2015), these data show that in terms of migrant-intensity, even smaller centres of activity require attention. A large portion of the cities in our migrant-intensive list can be classified as ‘provincial primate’ cities—cities that play a primary function at the provincial scale.

Banda Aceh (Aceh), Tarakan (North Kalimantan), Kendari (Southeast Sulawesi), Palu (Central Sulawesi) and Jayapura (Papua) are all examples. From a governance perspective, most of these cities are provincial capitals, meaning that they function as centres of administration and provision of services for citizens and businesses. Further, Indonesia has invested in building large universities in each of its provincial capitals, making them destinations for educational migrants from around the province.

A few interrelated trends also help to explain the emergence of these cities as centres of migration activity. For one, the process of decentralization, which began after the fall of Suharto in 1998, has involved building capacity and the injection of resources, including high levels of public investment, at the provincial and local levels of government in Indonesia. For example, legislation in 1999 shifted all expenditure functions to the district level, except for finance, foreign affairs, defence, religion and state administration (Regional Governance Act of 1999). In the centralized system, Java—the epicentre of power and population density—was prioritized in infrastructure provision and industrialization (McColloch & Malesky, 2014). Moreover, in the era of decentralization, the central government has implemented a revenue-sharing policy that allows regional governments to keep more the revenue generated through natural resource extraction. This has enriched certain parts of the country that were previously neglected. Between 2001 and 2008, the share of the average district's fiscal resources that came from natural resource revenue sharing increased from 13.2 to 25 per cent (Agustina, Ahmad, Nugroho, & Siagian, 2012).

The growth of provincial centres of administration and economic activity is part of this story. In Kendari, the capital of Southeast Sulawesi, a historically poor province in eastern Indonesia, some of the fastest growing sectors are highly related to government expenditures. For example, the education sector grew at an average annual rate of 12.6 per cent between 2010 and 2015, electricity and gas posted an average growth rate of 13.9 per cent and for water supply, waste management and sewerage the figure was 8.9 per cent. The construction sector, buoyed by these investments, grew at 11.8 per cent per annum over the 2010–2015 period (*Produk Domestik Regional Bruto Kota Kendari*, 2016). Similar stories are playing out in provincial capitals around the country, especially as current President Joko Widodo ('Jokowi') promises to develop Indonesia from its peripheries (Yulisman, 2015).

Migrant-intensive Geographies in India

In Table 2, we present the migrant-intensive districts in India using the methodology described above. We find a total of 66 districts, spread across a variety of geographical regions in the country. The prominent trends are described below.

Migrant-intensity Not an Urban Phenomenon

Unlike the Indonesian classification of sub-provincial units as either cities or regencies, all Indian districts—the equivalent sub-provincial unit—can contain both urban and rural areas. We can determine the extent to which migrant-intensity is an urban phenomenon by looking at the urbanization level of the identified districts—that is, what share of the population in each is urban. Of the 66 districts that are migrant-intensive, 37 have urbanization levels below the national urbanization rate in the 2001 Census, which stood at 27.7 per cent. Only 29 districts are more urban than the national rate, and only seven are over 50 per cent urban (see Figure 2). This shows us that migrant-intensity is not necessarily an urban phenomenon in India.

Table 2. Migrant-intensive Districts in India

	State	District
1	Andaman and Nicobar Islands	Andamans
2	Andhra Pradesh	Nellore
3	Andhra Pradesh	West Godavari
4	Arunachal Pradesh	Dibang Valley
5	Arunachal Pradesh	East Kameng
6	Arunachal Pradesh	Lohit
7	Arunachal Pradesh	Upper Subansiri
8	Arunachal Pradesh	West Kameng
9	Arunachal Pradesh	West Siang
10	Assam	Kokrajhar
11	Chandigarh	Chandigarh
12	Chhattisgarh	Durg
13	Chhattisgarh	Raipur
14	Goa	North Goa
15	Goa	South Goa
16	Gujarat	Bharuch
17	Gujarat	Junagadh
18	Gujarat	Rajkot
19	Gujarat	The Dangs
20	Gujarat	Valsad
21	Haryana	Ambala
22	Himachal Pradesh	Hamirpur
23	Himachal Pradesh	Kinnaur
24	Himachal Pradesh	Lahul & Spiti
25	Himachal Pradesh	Shimla
26	Himachal Pradesh	Solan
27	Himachal Pradesh	Una
28	Karnataka	Bagalkot
29	Karnataka	Belgaum
30	Karnataka	Dakshina Kannada
31	Karnataka	Dharwad
32	Karnataka	Gadag
33	Karnataka	Kodagu
34	Karnataka	Udupi
35	Karnataka	Uttara Kannada
36	Kerala	Ernakulam

(Table 2 Continued)

(Table 2 Continued)

	State	District
37	Kerala	Kannur
38	Kerala	Thrissur
39	Lakshadweep	Lakshadweep
40	Maharashtra	Ahmadnagar
41	Maharashtra	Akola
42	Maharashtra	Amravati
43	Maharashtra	Aurangabad
44	Maharashtra	Bhandara
45	Maharashtra	Buldana
46	Maharashtra	Chandrapur
47	Maharashtra	Dhule
48	Maharashtra	Gadchiroli
49	Maharashtra	Jalgaon
50	Maharashtra	Kolhapur
51	Maharashtra	Nandurbar
52	Maharashtra	Nashik
53	Maharashtra	Raigarh
54	Maharashtra	Ratnagiri
55	Maharashtra	Sangli
56	Maharashtra	Satara
57	Maharashtra	Sindhudurg
58	Maharashtra	Solapur
59	Maharashtra	Wardha
60	Maharashtra	Yavatmal
61	Mizoram	Aizawl
62	Pondicherry	Pondicherry
63	Rajasthan	Ganganagar
64	Uttaranchal*	Chamoli
65	Uttaranchal*	Garhwal
66	Uttaranchal*	Tehri Garhwal

Source: Authors' estimation according to sample of 2001 Indian census data.

Note: *The state has since been renamed Uttarakhand.

Urbanized districts still do not feature prominently if we look at in-migration or out-migration separately. There seems to be no discernible relationship between urbanization and migrant-intensity. This could be a reflection of the importance of rural–rural movements in India's migration patterns and is in line with literature that sees internal migration as a livelihood diversification strategy in which rural households have family members working in wage-earning jobs elsewhere, often in agricultural labour in nearby areas (Agrawal, Chandrasekhar, & Gandhi, 2015; Deshingkar & Akter, 2009).

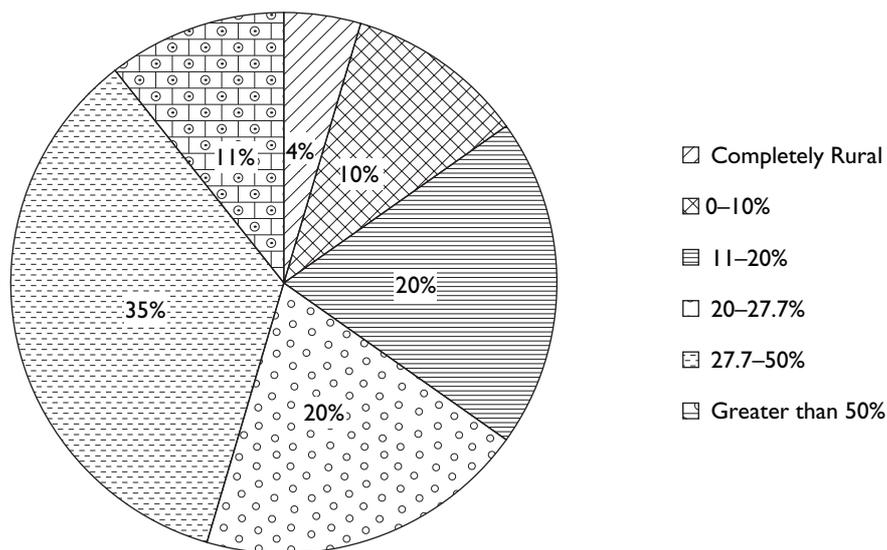


Figure 2. Rate of Urbanization among Migrant-Intensive Districts in India

Source: Indian Census (2001).

Small-sized and Peripheral Districts

Several districts in peripheral parts of India appear to be migrant-intensive. For instance, the mountainous regions of India feature prominently on this list, including districts in Arunachal Pradesh, Assam, Himachal Pradesh, Mizoram and Uttarakhand. The island districts of Lakshadweep, off the east coast of mainland India, and the Andaman Islands, in the Bay of Bengal, also feature on this list. Several districts from small states like Haryana and Goa as well as Union Territories¹² like Chandigarh and Pondicherry are also migrant-intensive. Most of these peripheral migrant-intensive districts are relatively small in terms of population size as well as land area as compared to the average in India.

Hilly regions of India have had a long history of out-migration owing to lack of development and employment opportunities as well as the precarious nature of agriculture. Additionally, population densities and total number of people in each district are lower in mountainous areas as compared to the plains. Therefore, these districts may appear more prominent when we look at migrants as a share of total population; the same number of migrants in a more populous district would not render it as migrant-intensive by our definition.

Prevalence of Secondary and Small Cities

Since migration into urban areas of the district is also reported by the census, we are able to understand in some detail the nature of the urban in the migrant-intensive districts, specifically in terms of the number of towns and their size-class distribution. Specifically, the data permit us to disaggregate urban migrant population by Class I (urban areas with over 100,000 people) and below Class I (urban areas with less than 100,000 people) towns.

Therefore, we find that several migrant-intensive districts contain secondary cities, especially in relatively developed and industrialized states like Gujarat, Maharashtra, Karnataka and Andhra Pradesh.¹³ Of the 66 migrant-intensive districts, 22 have over 50 per cent of their urban in-migrants in cities over 100,000. These districts host secondary cities like Chandigarh and Pondicherry—both Union Territories; Aizawl in Mizoram; Dharwad and Udupi in Karnataka; Ambala in Haryana; Shimla in Himachal Pradesh; Durg and Raipur in Chhattisgarh; Akola, Amravati, Aurangabad, Dhule, Jalgaon, Kolhapur, Nashik, Sangli and Solapur in Maharashtra; Bharuch and Rajkot in Gujarat; and Ernakulam in Kerala. None of the districts where major metropolitan centres are located show up as migrant-intensive.

The migrant-intensity of districts with prominent secondary cities is not hard to explain. Three of these are state capitals—Aizawl in Mizoram, Raipur in Chhattisgarh and Shimla in Himachal Pradesh—where government offices, education centres and health facilities are concentrated. Many of these cities are established market and trading centres and have been so historically, like Ernakulam and Bharuch. Ambala is an important centre for the armed forces, while towns like Rajkot were capitals of erstwhile princely states in the pre-Independence era. Many of these are industrialized towns, especially in Gujarat and Maharashtra, which benefited from investments in infrastructure and industry in the post-Independence decades when centralized planning was the norm. Dhule, for instance, is a powerloom hub. Its location at the confluence of important highways gives it a strategic edge and it now finds itself on the proposed Delhi–Mumbai Industrial Corridor that connects India’s political and economic capitals.

In 25 out of 66 districts, 100 per cent of urban in-migrants were residing in cities with less than 100,000 people. Another 15 districts have over half their urban in-migrants living in cities of this size. The migrant-intensity of districts where the urban areas are composed of small towns supports the notion that the poor migrate to the nearest urban areas in pursuit of non-farm employment. Many of these small towns have been important administrative centres as district capitals, while others could have urbanized in situ over a period of time.

Comparing Indonesia and India in Migrant-intensity

Some interesting observations can be made in comparing patterns of migrant-intensity across these two countries. We discuss in this section a few of the dimensions along which comparison may prove fruitful.

Rural, Urban or Something in Between?

In Indonesia, only three of the 29 districts we identify as migrant-intensive are regencies,¹⁴ and the vast majority are small- to medium-sized cities with populations between 100,000 and 500,000. This stands in sharp contrast with India, where a majority of migrant-intensive districts are less urbanized than the country as a whole, and in more urbanized districts, a large proportion of urban migrants are concentrated in cities of less than 100,000. Does this mean that migrant-intensity is largely an urban phenomenon in Indonesia and a rural phenomenon in India? Corroborating evidence would suggest that this is true. For one, Indonesia as a whole is far more urbanized than India, with over half its population living in areas classified as urban. India was only 27.7 per cent urbanized in 2001, the year of our data, and even

now reports an urbanization level of only 31.2 per cent. Moreover, as discussed earlier, internal migration in India is dominated by rural–rural pathways. On the contrary, recently released provisional data from Census 2011 shows that urban–urban migration has increased by 6 percent in the last decade—as compared to a fall in rural–rural flows and a marginal increase of 1 percent in rural–urban flows. The total number of urban–urban migrants has more than doubled during this period. This adds strength to the notion that small cities play a significant role in migration pathways.

There are also methodological reasons why migrant-intensity may appear more urban in Indonesia than in India. In India, any movement—even within a district—is counted as migration, whereas in Indonesia we examine movements between districts—that is, between one city/regency and another. Intra-district movements may be more likely in both countries to happen in predominantly rural places, but our data across countries are not equally likely to show those movements. Since cities in Indonesia tend to be much smaller administrative units than regencies in spatial terms, a migrant in a regency can move further before being classified as an inter-district migrant than can a migrant in a city. In India, district size is not generally related to level of urbanization.

Small and Outlying Places

In both India and Indonesia, several districts in peripheral parts of the country are found to be migrant-intensive. In Indonesia, eastern Indonesian cities like Bau-Bau, Ternate and Tual illustrate this trend, while in India, smaller cities in the hilly regions of the north and northeast feature prominently. In Indonesia, we hypothesize that large-scale investment in outlying areas and the commitment to developing Indonesia from its periphery may be one driver of growth and opportunity for migrants in such small places. In India, this emphasis is not as straightforward. Much of the migrant intensity of peripheral areas might be owing to historical trends of migration and the push factors from poor rural areas in these far-flung regions.

Another reason for the attractiveness of small, outlying places to migrants is more likely to be common across the two countries. Just as provincial primate cities in Indonesia provide essential services—for instance, education—to the surrounding rural areas, smaller cities in India like Raipur and Shimla play the same role. Decentralization in both countries is partially responsible for fuelling the growth of these centres, as providers of essential services.

Is India More Migrant-intensive?

The data also suggest that India is more migrant-intensive by our definition. In both countries, districts that rank in the top quintile in terms of both in-migration and out-migration are classified as migrant-intensive. One could define the level of migrant-intensity by the degree of overlap between these two top quintiles—the top destinations and the top origins. There is greater cross-over in India between the cohort of top destinations and top origins. By our definition, the maximum number of migrant-intensive districts that India could host, statistically, is 119 (20 per cent of all its districts).¹⁵ The actual number is 66. In Indonesia, the maximum number would be 98, while the actual number is 29. In this way, one could argue that India is a more migrant-intensive country than Indonesia—that there is greater overlap between its origins and destinations. This is plausible given the prominence of rural–rural migration movements in India, whereas in Indonesia migration appears more closely linked with urbanization.

What Migrant-intensity Might Mean for Planners and Policymakers

The above discussion provides a departure from the perception of migration as a largely village-to-metropolis phenomenon. Viewing districts from the perspective of migration-intensity shines the spotlight on often unexpected places that tackle the highest concentration of migrants in their respective countries. What might high migrant-intensity mean for those concerned with governing and planning?

Developing employment strategies is a particular challenge for places that experience high levels of mobility. If, as we hypothesize, some of these migrant-intensive districts are sending out skilled migrants and receiving unskilled migrants, then a greater focus on skilling of unskilled migrants for sectors where investment and growth is anticipated may be necessary. Retention of skilled migrants through aligning universities and industries could also be a useful strategy, one that has been employed worldwide for the economic development of cities and city regions.

A higher share of migrant population poses two obvious challenges to planning and management: the inclusion of migrants in the provision of social protection as well as in providing housing and basic services. Access to certain services requires a local address proof in both countries—such as subsidized food from the public distribution system in India or local public education in Indonesia. Social housing projects also tend to exclude migrants, often forcing low-income in-migrants to live in informal areas where tenure-security and access to basic services like water and sanitation are a significant problem. Migrant-intensive geographies would need to think more deeply about these issues, implementing improved policy frameworks for migrant inclusion: flexible systems of health services delivery; rental and dormitory housing projects; more agile technology in basic services delivery, like non-sewered, non-networked solutions instead of traditional piped systems; and programmes to sensitize local officials about migrant inclusion.

Thinking about migrant-intensity could also encourage places to think more intensely about inclusive designs for public infrastructure—such as transportation and public spaces. It would also be important to focus on ensuring local regulations are non-discriminatory towards migrants. For municipalities (and rural administrative units) that are migrant-intensive, generating revenue from traditional sources like property tax could be a challenge as well. Therefore, innovations in revenue generation are critical. In this context, mechanisms to leverage community investments in housing, services and social amenities could be beneficial.

Further research on the spatial implications of internal migration is required to understand better the drivers of in- and out-migration in general. Particularly, a more fine-tuned typology of migrant-intensive geographies, beyond the broad trends outlined in this paper, would be useful to explore capacity gaps in such places and offer more specific policy insights. In order to extend the enquiry taken up in this paper, the authors plan to undertake further empirical research to understand the role of migrant-intensive small cities in migration pathways.

Acknowledgements

The authors extend gratitude towards the Think Tank Initiative and the International Development Research Centre for their support of this research. The authors would like to acknowledge the valuable support of researchers Sama Khan and Shamindra Nath Roy (Centre for Policy Research) and Deeksha Kokas and Dhruv Jain (JustJobs Network).

Notes

1. In Indonesia, 'district' refers to two sub-provincial units of administration that have equal levels of authority. The *kota* (city) is a designated municipality, that is, by definition, 100 per cent urban. The *kabupaten* (regency) is a historically rural area, though many are experiencing their own forms of urbanization and

have large non-farm economies. In India, the district is a sub-provincial spatial and administrative unit. Districts are composed of villages, which are understood as rural, and towns, which are understood as urban.

2. Migration data from the Census 2011 is still awaited.
3. Article 19 of the Constitution of India states that ‘All citizens shall have the right (d) to move freely throughout the territory of India; (e) to reside and settle in any part of the territory of India; and (g) to practice any profession or carry on any occupation, trade or business’.
4. The Census of India defines as urban those settlements with over 5,000 people, a population density of over 400 ppl/sq. km and with over 75 per cent of the male workforce engaged in non-farm occupations.
5. Census towns are settlements declared urban by the Census but governed by rural administrative mechanisms; the emergence of a large number of census towns in the last two census 2001 and 2011 further strengthens the idea of dispersed urbanization in India.
6. See Java. (n.d.). Retrieved 12 October 2016, from <https://www.britannica.com/place/Java-island-Indonesia>
7. *Jabodetabekjur* refers to the metropolitan area that includes Jakarta, Bogor, Depok, Tangerang, Bekasi and Cianjur.
8. Estimation based on the 2014 population of *kotas* and *kabupatens* that make up the *Jabodetabekjur* metropolitan region.
9. The Integrated Public Use Microdata Series (IPUMS) is a repository of population data from countries around the world, published and maintained by the University of Minnesota.
10. The availability of GDP growth figures is not consistent across districts. We examined GDP data over the period from 2010 to 2015 for all the districts, calculating the average rate of growth over a multi-year period. All calculations are based on at least three observations, and the vast majority are based on four to six observations. Data are sourced from the most recent *Dalam Angka* reports, published by the district-level statistical office (*Badan Pusat Statistik*) in each city and regency.
11. According to 2010 Census.
12. Union Territories, unlike States, are directly under the Union Government of India and do not have federal powers.
13. The Census 2001 shows data for undivided Andhra Pradesh and does not reflect the split into Andhra Pradesh and Telangan, which happened only in 2014.
14. A regency is not necessarily rural. It is composed of rural and urban areas. However, it stands in contrast to a city, which is by definition 100 per cent urban. Therefore, the number of regencies versus cities is a rough proxy of rural migrant-intensity versus urban migrant-intensity.
15. As of the 2001 census.

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