URBANA DISTRESS AN EMERGING FRAMEWORK FOR

UNDERSTANDING URBAN VULNERABILITIES IN INDIA





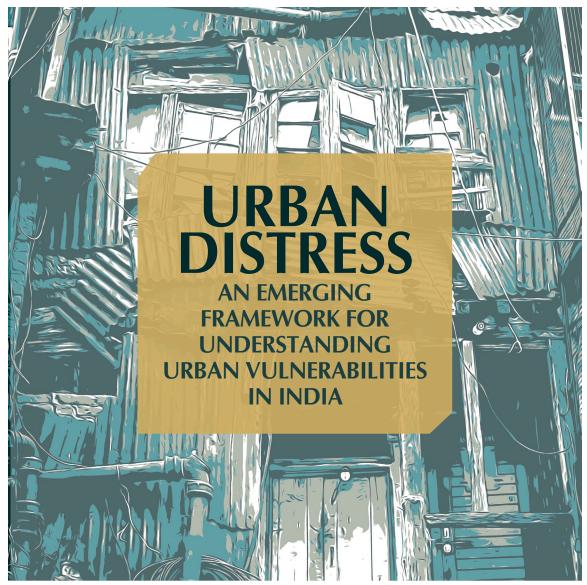


Image Source: https://unsplash.com/@charlottelharrison

ACKNOWLEDGEMENT

This report has been prepared under the research programme, Scaling City Institutions for India: Sanitation, funded by the Bill and Melinda Gates Foundation (BMGF).

AUTHORS

Shubhagato Dasgupta, Anindita Mukherjee, Abhinav Kumar, Arushi Gupta

SUGGESTED CITATION:

Dasgupta, S., Mukherjee, A., Kumar, A., & Gupta, A. (2022). Urban Distress: An Emerging framework for Understanding Urban vulnerabilities in India. Center for Policy Research.

DOI: http://dx.doi.org/10.13140/RG.2.2.36382.00329



Contents

Introduction	5
Economic Transformation and Urbanisation	6
Growth of Census Towns	7
Growth of Small Towns	7
Growth of Larger Cities	7
Urbanisation Patterns and Policy Changes	8
Defining Urban Distress	9
Understanding Micro Urban Distress	9
Occupational Vulnerability	10
Residential Vulnerability	10
Social Vulnerability	10
Understanding Macro Urban Distress	11
Economic Distress	11
Infrastructural Distress	11
Social Distress	12
Methodology for Estimating Urban Distress	13
Data Analysis	14
Policy Implication and Conclusion	16
References	18



LIST OF FIGURES

Figure 1: Location of Census Towns	7
Figure 2: Location of Census Towns	10
Figure 3: Macro levels distress and Indicators	12
Figure 4: Distress Map for macro and	
micro urban distress	14
Figure 5: Macro and Micro Distress	15



Image Source: https://unsplash.com/@nabilnaidu

Introduction

Indian urbanization is accompanied by rapid economic growth and change in the Indian economic structure. Indian cities are growing rapidly; however, issues related to inadequate infrastructure, constraints on land use, low investment in health and education, and limited state capacity limit cities' ability to provide a better quality of life. The effect of economic growth and structural transformation in the economy (Aryettey and Moyo, 2012; Resnick, 2016) on rural areas is well studied (Binswanger-Mkhize, 2013, Singh and Bhogal, 2020; Jodhka, 2014, Kumar, 2016; Gupta, 2005), but its impact on urban areas is not well understood. This study aims to understand the impact of structural transformation and economic growth on Indian cities.

Many scholars have argued that the structural transformation of the Indian economy is incomplete or stunted. We argue that it has created distress in Indian cities and towns. In the context of developed countries, Urban distress signifies the decline of neighbourhoods or cities due to changes in the city's economic structure. For developing countries like India, urban distress signifies the inability of urban governance to keep pace with urban growth. It gets reflected in the crumbling infrastructure, lack of investment in social and civic amenities, and higher urban poverty rates. The mismatch between the government's and private sector's capacity and the growing need for better urban governance is the primary source of distress in Indian towns and cities.

The COVID-19 pandemic has highlighted the extent of distress in cities of India. The mass exodus of migrants from big cities highlights the failure of the state and market to provide an adequate living standard to marginal and vulnerable sections of society. The informal sector, which employs most of the marginal and vulnerable population, lacks social security. Those working in these sectors are doubly marginalised due to low-quality housing and a lack of social and civic amenities. Their living conditions rendered the norms of social-distancing and hygiene practices unfeasible and inaccessible the twin failure of states and markets to provide better living conditions for many people makes the cities vulnerable to external shocks like pandemics.

This study presents a framework to conceptualize and measures urban distress in Indian cities. Six states – Bihar, Punjab, Kerala, Gujarat, Tamil Nadu, and Odisha- are selected for the study based on the extent of structural transformation. Urban distress provides a conceptual framework for identifying the nature and extent of distress. It can be applied at the level of neighbourhoods to identify distressed neighbourhoods and policy priority for addressing it.

The paper is divided into five sections. The following section discusses the nature of structural transformation in the Indian economy and how it causes the low capacity of the market and the state. The third section describes the nature of urbanisation in the Indian context and its link with the economy's structural transformation. The fourth section describes the indicators used to measure macro and micro level distress and details the methodology for calculating urban distress for all class 1 cities in India. Finally, the fifth section concludes by discussing the policy implication of urban distress on urban governance and policy.

Economic Transformation and Urbanisation

The shift of economies away from rural based agriculture sector to urban based service sector, has significant implications for urbanisation. Manufacturing and service industries are more likely to locate themselves in cities to reap the benefits of agglomeration due to proximity to user and suppliers (Krugman, 1991), cheap transport (Glaeser and Khlase, 2004) and specialised labour (Glaesser and Reseger, 2010; Rauch, 1993). These sectors incentivise agglomeration, are less landintensive than agriculture and have higher productivity, all of which leads to a higher rate of urbanisation (Rauch and Redding, 2012). The historical experience of countries in Western Europe (Bairoch, 1988) and the USA (Kim, 1999) shows that urbanisation accompanies the economy's structural transformation. However, there is no consensus on the causal relationship between the two (Bloom, Canning, and Kane, 2008).

Unlike the growth trajectories of western countries where the shift of capital and labour away from agriculture was accompanied by rapid growth in manufacturing and gains from colonisation, the structural transformation in India was led by service sector (Verma, 2011) and was not uniform across regions. Thind and Singh (2018) show in their study that the degrees of shift away from agriculture, is different across states, but all states saw decline in the share of agriculture. The growth of manufacturing and services was also not uniform across states. In addition to the change in sectoral composition, the drivers of economic growth also varied across states. Ahsan and Mitra (2017) analysed the contribution of structural transformation and increase in within sector productivity in overall economic growth. They find that both the factors contributed significantly to economic growth.



Image Source: @anniespratt

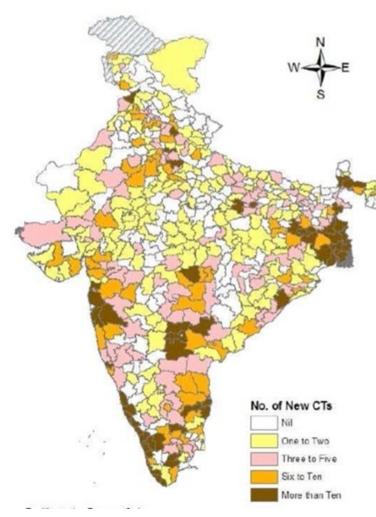
Both these sources of economic growth have different implications for urbanisation. Structural transformation causes shift of labour from one sector to other leading to migration of labour from regions with lower productivity to higher productivity. Owing to lower levels of labour mobility and poor living conditions of migrants in bigger cities, structural transformation is less likely to cause shift of labour from rural areas to urban areas. This is corroborated by Chaudhari (et al., 2017) who show that growth of manufacturing is positively correlated with growth of small and medium towns. Guin (2017) have also argued that growth of non-farm rural economy has played an important role in growth of census towns. The growth of small towns and villages due to in-situ urbanization is not at the expense of bigger cities that continue to grow as shown by the increases in labour productivity within sector that favours growth of bigger cities. We will elaborate on some of the broader trends in Indian urbanisation in the next section

URBAN DISTRESS an emerging framework for understanding urban vulnerabilities in India.

Growth of Census Towns:

The number of Census Towns (CT) in India increased drastically from 1,362 to 3,894 between 2001 and 2011. Census towns are rural areas with population greater than 5000, density greater than 400 persons per square kilometre and more than 75% of urban male population working in non-farm sector. It accounts for approximately 29 per cent of the total urban growth in this period. The spatial distribution shown in Figure 1 indicates that while many new CTs are in proximity to metropolitan cities, many of them are not located near any major urban centres (Pradhan 2012). It shows that the growth of census towns is not solely dependent on the growth of bigger cities (Zhu et al., 2013). The rise of the rural non-farm economy (Mitra and Kumar 2015, Guin 2018) and employment of a large section of the

FIGURE 1: Location of Census Towns



rural population in non-agricultural activities (Lanjouw and Shariff, 2002, Papola, 1992) is one of the possible reasons behind the growth in the number of Census Towns. Factors like rapid agricultural growth (Bhalla 1993, Unni 1991), improvement in rural infrastructure (Kashyap and Mehta 2007) and an increase in agrarian distress (Himanshu 2007) contribute to the rapid growth of the rural non-farm economy.

Growth of Small and medium towns:

Around 43 per cent of the urban population in India lives in small and medium towns and cities, which are neither million-plus cities nor census towns. They continue to grow irrespective of their distance from large cities, mainly owing to endogenous factors such as the growth of the non-farm sector in nearby rural areas as well as integration with global supply chains (Onda et al., 2019). They represent a large and growing market that provide goods and services to the nearby rural population. These small towns also play an important role in coping mechanism of rural population with poverty and uncertainty by mobilising their kinship networks and family resources (Zérah and Denis, 2017). Small towns have higher poverty rates but lower levels of inequality, and higher purchasing power than bigger cities (Himanshu, 2006; Kundu and Sa-

> rangi, 2003). Although the small towns make a significant contribution to the urban economy, the lack of corresponding investment in the physical and social infrastructure makes it difficult for businesses in smaller cities to grow.

Growth of Larger Cities:

About 42 per cent of the total urban population resides in million-plus cities, reflecting their continued importance. Moreover, they contribute 33 per cent of India's GDP despite having only 12 per cent of its total population. It shows that megacities continue to drive economic growth and urbanisation in India, despite the increased importance of smaller towns. They receive a bulk of investment in infrastructure (Kundu, 2014) and have better physical and social infrastructure than the small cities and towns (Mukhopadhyay, 2017). It makes these cities attractive to the global capital and businesses. The role of global capital in driving urban growth of megacities coexist with the vital role played by the informal sector in urban growth. These mega cities attract a large share of migrants from smaller towns and cities who come here looking for better employment opportunities. Increasing inequality in the big cities, resulting in splintered urbanism in which well-planned areas, gated communities coexist with overcrowded chawls, tenements, and makeshift dwellings (Gandy, 2008).

Urbanisation Patterns and Policy Changes:

A large section of the urban population resides in census towns that is urban-like but governed by rural administration (Denis & Marius-Gnanou, 2011) but states are reluctant in recognizing them as Statutory Towns (STs) (Pradhan, 2013). It may be due to the limited powers and financial resource for the urban local bodies in comparison to Panchayati raj institutions, rendering it more advantageous for a settlement to remain rural. (Denis et al. 2012; Samanta 2014). Urban area's growth under rural administration, as in CTs, without an urban plan, budgetary allocation, or administrative set-up suited for urban areas, caused poorly managed urban growth. Therefore, it is critical to recognise the need to transcend the urban-rural dichotomy that has governed urban policymaking and address the drivers of coordination between various actors and processes and considering the embedded nature of local histories and the importance of idiosyncrasies of these spaces (Raman et al., 2015).

Despite the rapid growth of small towns in India, recent urban development programmes demonstrate a "metropolitan bias" due to their focus on big cities which receive the bulk of the investment on urban infrastructure. Consequently, small towns have long been neglected and have stagnated to a point where they look more rural in character than urban, thereby neglecting the many benefits of small towns (Khan 2014). Even after greater political autonomy due to the 74th constitutional amendment, ULBs continue to depend on government grants, even for their daily operations. A study of seven small towns in North India shows that the poor financial situation of urban local bodies results from their inability to collect tax and utility charges, inadequate transfer of funds from the state or central government, and their failure to attract investors (Sharma, 2012). While the central and state governments have been changing periodically, the policy discourse towards the country's small towns has not undergone any significant transformation. The democratic planning institutions often remain dysfunctional, or in some cases, even cease to exist (Vaddiraju, 2019).

As more urban poor throng to large cities in search of better economic opportunities, critical deficiencies in infrastructure, shelter and essential services, and habitat quality emerge (Nallathiga, 2007)[6]. The infrastructure deficiency disproportionately impacts poor urban residents and migrants because these groups have limited access to the land in cities and towns. (Tacoli et al., 2015). The underlying complexities of the land markets further push the urban poor to reside in insanitary and densely populated residential conditions coupled with insecure incomes and a legal and regulatory regime hostile to the urban poor.

The COVID-19 pandemic highlights the government's incapacity to cater to a vulnerable population, especially migrant workers, showing the distress in urban centres. For the residents of the persistently expanding slums and squatter settlements, characterised by overcrowding, congestion, and the lack of adequate access to water and sanitation facilities, the pandemic has left them highly susceptible to the virus with access to only short-term relief offered by different civil, society organisation. The COVID-19 pandemic has unveiled the precariousness and distress prevalent in the urban areas; hence, it is crucial to conceptualise and measure the urban distress in Indian cities and mainstream the policies which can address it. Understanding the nature of urban distress in urban areas is important for achieving resilience and sustainability in urban governance as articulated in SDG 11 (Safe and Sustainable Communities).



Image Source: https://unsplash.com/@krushapatel

Defining Urban Distress

Failure to manage urbanization is one of the biggest reasons for increased distress in cities. Urban distress. as defined by OECD, is social, economic, cultural, and ecological deprivations of a city or an area within the city. These areas have higher concentration of lowincome households, suffer from physical deterioration of infrastructure, higher crime rates and vandalism and other similar socio-economic deprivation. Change in employment structure and misplaced government priorities are cited as two main reasons for the emergence of distressed urban areas. In the Indian context, the source of urban distress is distinct from the developed countries. In Indian cities, urban distress is less about the decline and deterioration of areas within cities and more about mismanagement of urban growth due to inadequate capacity of the state and market. The mismatch between the requirements of the increasing number of vulnerable populations and an inadequate capacity of city-level systems result in urban distress. We define urban distress as the mismatch between the capacity of government and private actors to provide favourable social, economic, and infrastructural conditions needed for improved urbanisation as urban areas grow and attract more and more poor people looking for economic opportunities. It is not an index for measuring the quality of city life or standard of living but a framework to identify pain points in urban growth. We look at macro factors operating at

the level of the city and micro factors operating at the level of the household to understand the nature of urban distress. In the next section we discuss the macro and micro urban distress.

Understanding Micro Urban Distress

For this study, we conceptualise micro-urban distress as the concentration of vulnerable households in urban areas. Hashim committee reports have highlighted the importance of shifting the focus of urban policy from poverty to vulnerability. According to the committee, insecure low-wage, low-productive employment, inadequate and uncertain shelter, low access to basic amenities such as clean drinking water, sewerage and sanitation, and insufficient nutritional levels characterise the life of the urban poor. Distinguishing between poverty and vulnerability, the committee argues that poverty reflects a current state of deprivation. In contrast, vulnerability is an ex-ante measure of well-being, reflecting not how well off a household currently is but its prospects (Hashim committee, 2012).

We build on the three tiers of vulnerability defined by the Hashim committee formed in 2012: Occupational, Residential and Social. The reason for using vulnerability as a proxy for micro-level urban distress is twofold: first, vulnerability is an all-encompassing concept in comparison to urban poverty; second, it focuses on the probability of a household falling into poverty, thus indicating the distress of the household.

Occupational Vulnerability:

The occupational vulnerability of a household can be measured by the status and the nature of the household employment. We use the share of unemployed and marginally employed to measure the level of occupational vulnerability. There are several causes of unemployment like decline in the general level of economic activity and the failure of the labour market in an economy to work optimally (Dean, 2013). Unemployment not only leads to a loss of income in the short run but also has significant longer-term impacts such as permanently lower wages, worse mental and physical health, and higher mortality rates (Nichols, Mitchell & Lindner, 2013). People employed as informal workers lack job security, receive low wages, and are trapped in low productivity jobs and consequently, they are vulnerable to exogenous shocks like disease or unemployment. Therefore, the concentration of occupational vulnerability can be measured by the share of unemployed and marginally employed.

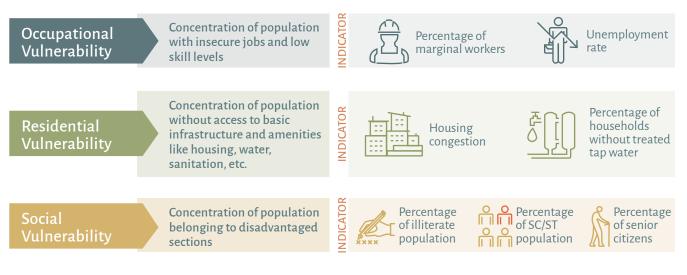
Residential Vulnerability:

The absence of safe and affordable housing for all in India and the lack of access to basic amenities like water and sanitation constitute residential vulnerability. During the pandemic, residential vulnerability has emerged as a critical form of vulnerability, especially among the slums and squatter settlements and the migrant workers in the cities. According to ICMR, in comparison to rural areas, the risk of spread was 1.1 times higher in urban areas and 1.89 times higher in urban slums (Perappadan, 2020). In this milieu, the most visible manifestation of urban residential vulnerability is overcrowding in hazardous locations, such as open drains, low-lying areas, the banks of effluent tanks, the vicinity of garbage dumps, open pavements and streets. (Hashim Committee, 2012) In addition to the housing shortages and homelessness, lack of basic amenities like clean drinking water and Individual household latrine also contribute to residential vulnerability. In the long term, without providing essential services like water and sanitation, alongside adequate housing, the great majority of urban poor will find it difficult to survive, let alone improve their tenuous hold on life or generate favourable social and economic conditions (Giles and Brown, 1997). We will measure the concentration of residential vulnerability using the percentage share of households having no room or only one room in their dwelling and the percentage share of households without access to tap water.

Social Vulnerability:

Social vulnerability refers to the inequalities and exclusions based on the social identity and lack of capability to earn livelihoods. Lack of education, especially in developing countries, affects the employment opportunities available to an individual. Caste identities, which have long been considered sources of inequality and spatial segregation, also affect the likelihood of securing a good job (Thorat & Newman 2010). The caste-based segregation in

FIGURE 2: Location of Census Towns



cities also affects access to basic amenities like water, sanitation, education, and healthcare (Singh, Vithayathil & Pradhan, 2019), along with proper housing (Kumar, 2015). Urbanization is associated with the evolution of a nuclear family structure, which has left the elderly population vulnerable to various physical and mental health issues and socio-economic deprivation (Prasad, 2017). Percentage of illiterate, SC/ST, and senior citizen in overall population is used to measure social vulnerability.

Understanding Macro Urban Distress:

Macro urban distress is the measure of distress at the level of the urban area especially at the economy and physical and social infrastructure. The level of the economic growth and quality of social and physical infrastructure in the city is a function of the capacity of local government and private actors to manage urban growth. Providing social infrastructure includes building adequate number of schools and hospitals whereas providing physical infrastructure includes building roads, houses, and other necessary infrastructure that is needed for adequate living conditions and ensuring favourable conditions for economic growth (Ahluwalia, 2014). Higher the capacity of the government and the private actors to ensure these conditions, lesser is the macro urban distress. We use the term capacity in managing urban growth and not as administrative or coercive capacity of the government (Fukuyama, 2013). It is not focused on creating and enforcing rules and regulations alone but on providing social and physical infrastructure and promoting economic growth. When understood as such, state capacity in the context of urban governance is about providing favourable social, infrastructural, and economic conditions needed for urbanisation.

Building on this notion of state capacity, we identify three kinds of macro urban distress: Economic, Infrastructural and Social. Economic distress is the ability of the state and non-state actors to provide necessary conditions for equitable economic development like social security for informal workers and promoting skill development and entrepreneurship. Infrastructural distress results from the inability of state and non-state actors to provide physical infrastructure crucial for urbanisation like roads, sewer lines, housing etc. Social distress is the inability of the state and non-state actors to provide social infrastructures like health and education. In the following section we discuss each of them in detail.

Economic Distress:

Economic distress in a city can be measured by the lack of economic diversity and the large size of the informal sector. A city with an economy dominated by one sector or enterprise is more likely to be vulnerable than one with diverse economic activities (McLaughlin 1930, Chinitz 1961). Lack of economic diversity results in limited knowledge and skill among the labour, which restricts innovation (Florida,2003) and thus decreases the ability of the economy to find new avenues of growth or recover from economic crises. The informal sector operates at a lower level of productivity (Loyaza, 1999) and has poor quality jobs (NCEUS, 2008). Most of those working in the informal sector lack job security or any other form of social security, thus rendering them vulnerable (NCEUS, 2008). We use Herfindahl-Hirschman index to measure economic diversity of a city (Rhoades, 1993). The size of the informal sector is calculated by the share of informal employment in the city's total employment. We define informal sector as all the household level enterprises from the economic census used to calculate economic distress.

Infrastructural Distress:

Adequate housing and connectivity are essential for ease of living and ensuring access to employment opportunities. Lack of adequate, affordable housing and inadequate access to essential services is the single biggest reason for the emergence of slums in the cities (Marx and Stoker, 2013). Connectivity and transportation play an essential role in economic growth through increased productivity (Aschaure, 1989) and economic output (Calderón and Servén,2004). Better road connectivity also improves the quality of life through decongestion of traffic (Duranton and Turner, 2012) and access to economic opportunities. The Ability of the government and private sector to provide adequate housing is challenging to measure because of the lack of data on housing at the city level. We will use the employment share of the construction and real estate service sector at the city level provided by the sixth economic census. Measuring connectivity is also tricky due to limited data at the city level. Hence, we will use the share of kutcha roads to total roads as the indicator to provide connectivity.

URBAN DISTRESS an emerging framework for understanding urban vulnerabilities in India.

Social Distress:

An educated, skilled, and healthy workforce is a must for urban growth. The failure to provide quality education and health facilities to a large section of the population will impact the ease of living (MoHUA, 2019) and their productivity (Rauch, 1991). Good education is an essential means of social mobility in developing countries, and health expenditure is one of the biggest reasons behind households falling into poverty. The ability to provide quality health and education is difficult to measure due to a lack of data on the city level. We will use the number of middle school students per school, both private and public, for measuring the capability of the government and private sector to provide education. All population from the age of 6 to 18 is considered schoolgoing population and all the public and private schools from primary to senior secondary level are included. We use the percentage of vacant posts in public and private health care centres to measure distress in the health infrastructure.

FIGURE 3: Macro levels distress and Indicators



- Herfindahl-Hirschman index for measuring economic diversity
- Percent of people employed in construction related activities
- Ratio of total number of schools to school going population (6-18 years)
- Percent Share of vacant posts of medical staff



Image Source: https://unsplash.com/@mohittzomar

Methodology for Estimating Urban Distress

We estimate urban distress in a city in two-steps. In the first step, we calculate the values for each indicator for all class 1 cities in India and then standardise it by calculating the z-score for each of them. Value of Z-score measures the distance of indicator value for the city from its mean indicator value for all the class 1 cities taken together. We then add z-score for each indicator of micro and macro urban distress separately to calculate macro and micro urban distress.

The magnitude of the macro and micro urban distress shows the level of distress in any city with respect to average distress for all class 1 cities whereas the sign of the value shows if the distress is higher or lower than the average distress. Positive value for any indicator means lower than the average distress level and negative value for an indicator means higher than average distress level. Value of distress closer to zero means the level of distress is close to average value of distress. There are some limitations to the methodology for estimating urban distress. Primary survey for collecting data on household and city level vulnerabilities is most suited for estimating urban distress but it is not possible to undertake such a detailed survey for all cities in India. The choice of indicators for measuring urban distress is also limited by availability of data at the city level. More detailed data at the city level about the economy, availability of social and physical infrastructure and employment conditions in the city will help chose better indicators and estimate the level of distress in a more robust manner. Due to lack of detailed data for all cities in India, analysis is done only for class 1 cities. As more data is available for all cities it will be possible to estimate urban distress for all the cities. The data used for analysis is from Census 2011 and Economic Census 2015 which is not up to date. More up to date data will also improve the analysis.

Data Analysis

For measuring and analysing urban distress, we identify six states - Bihar, Punjab, Odisha, Kerala, Tamil Nadu, and Gujarat. The states' selection is based on the level of structural transformation in different states and the urban distress among all the class 1 cities in the state. To measure the level of structural transformation, we follow Thind and Singh (2018), who ranked all the major states based on the Structural Change Index for 1980-2014. Structural change Index is the share of the movements of the sectors as a percentage of the whole of the economy. The value of the structural index lies between 0 and 1, where o means no structural change and 1 represents the complete structural change (Dietrich, 2009). Based on the ranking of Indian states by Thind and Singh (2018), Odisha and Kerala

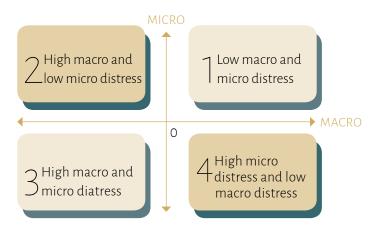
are among the top 5 states with respect to structural change, while Bihar and Punjab are among the states ranked between 6 to 10 and Gujarat and Tamil Nadu are ranked in the bottom five states.

We plot the micro and macro urban distress for all class 1 cities in the six identified states. The y axis in figure 2 represents the micro-urban distress, and the x-axis represents the macro urban distress. The nature and extent of distress at the city level can be analysed by the graph shown in figure 2. The cities in the first quadrant have low micro and low macro urban distress. The cities that are in the second quadrant have low micro but high macro urban distress. The cities in the third quadrant have high micro as well as macro urban distress. The cities in the fourth quadrant have high micro urban distress and low macro-urban distress.



Image Source: https://unsplash.com/@tejjj

Figure 4: Distress Map for macro and micro urban distress



URBAN DISTRESS

an emerging framework for understanding urban vulnerabilities in India.

Figure 3 shows the macro and micro-urban distress mapping of all the class 1 cities in the six selected states. Cities closer to the graph's origin are closer to the average urban distress for all class 1 cities. Similarly, the level of micro and macro urban distress, in cities which lie closer to the x-axis and y-axis in figure 2, is closer to the average micro and macro urban distress respectively.

The level of dispersion of cities along the x-axis shows the variability in micro distress and the level of dispersion along y-axis shows the variability in the capacity of the state and the market. capacity among the class 1 cities indicates that it is less affected by city-level factors. However, higher variation in the concentration of vulnerable populations shows that it is affected by city-level factors like size.

The urban distress in a city varies as per the state where it is located. Almost all the cities of Bihar are in third quadrant, which means they have high levels of micro and macro distress. The cities in Punjab are in all four quadrants but are clustered around either the origin of the graph or the axes. It suggests that the macro and micro-urban distress in class 1 cities of Punjab is closer to the average distress level for all class 1 cities in India. Different natures of urban distress in cities of the two states can be partly explained by the different in the productivity of agriculture in the two states. Prevalent agrarian distress in Bihar forces people to migrate to cities, both within and outside the state, thus increasing the concentration of vulnerable populations in urban areas. Moreover, poor implementation of reforms in urban governance and weak private sector in Bihar has resulted in a low capacity of government and private actors to improve the living conditions. On the other hand, the productivity of agriculture in Punjab is relatively better than in Bihar, so distress driven migration to cities of Punjab is lesser than in Bihar. As a result, cities in Punjab have lower concentration of vulnerable populations and more resources for providing basic infrastructure for all. However, in Punjab, some smaller cities like Moga, Muktsar, and Batala have a higher concentration of vulnerable household levels, mainly due to the poor living conditions and higher concentration of SC/ST population.

Contrary to Bihar and Punjab, economic growth in Tamil Nadu and Gujarat is driven by non-agricultural sector. Class 1 cities in both the states have different nature of urban distress. Cities in Gujarat have higher dispersion along X-axis showing greater variation in levels of micro distress despite similar low macro distress across cities. In contrast most cities in Tamil Nadu are centred around the origin and the axes and have higher variation in levels of

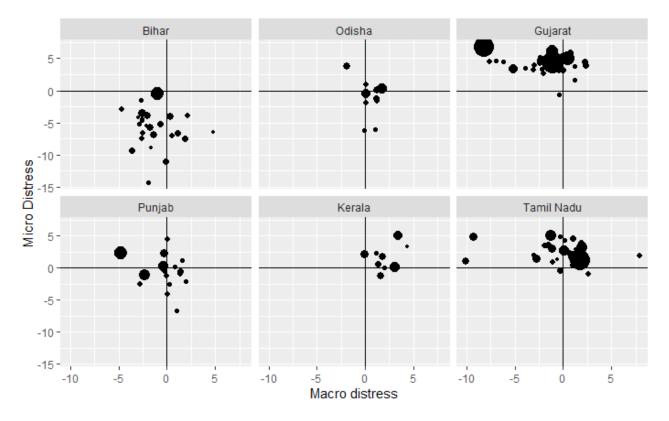


Figure 5: Macro and Micro Distress



an emerging framework for understanding urban vulnerabilities in India.

macro distress than micro distress. Higher macro-urban distress in industrial cities in both the states like Surat, Jamnagar, Tirupur is mainly due to lack of economic diversity as majority of labour force is employed in few economic sectors. However, smaller cities like Avadi in Tamil Nadu have high macro urban distress due to a lack of social and physical infrastructure. One of the possible reasons behind lower micro urban distress in Tamil Nadu could be the result of higher social sector expenditure and more welfare-oriented approach to social development.

Kerala and Odisha present a different scenario where most cities are clustered around the centres meaning they are closer to average urban distress. Nevertheless, most cities of Kerala are in the first quadrant, and most of the cities in Odisha are in the fourth quadrant, meaning Kerala has less than average micro distress while Odisha have higher than average micro distress. The difference in micro distress with similar levels of macro distress could be because of different kind of urbanisation in these two states. In Kerala, Urbanisation is primarily driven from the bottom up, reflected in the rural-urban continuum and the decentralised governance structure. In Odisha, urban governance is driven by top-down approach that has reduced macro-urban distress but has not been successful in addressing the vulnerability. Odisha has been trying to address this issue by greater involvement of community based organisation, in line with governance models in Kerala, for translating the better urban governance to reduction in vulnerability.



Image Source: https://unsplash.com/@charlfolscher

Policy Implication and Conclusion

Urban distress is the result of the failure of urban policy to address the needs of vulnerable households both in bigger cities and small towns. The structural transformation of the Indian economy has increased the importance of urban areas in the Indian economy. However, adequate investment in developing basic infrastructures like housing, piped water supply, and sewer network did not come. Moreover, the fruits of economic growth were also not evenly distributed, thus increasing the spatial inequality among and within the cities. A large section of the workforce, even after long periods of stable economic growth, continued to work in the informal sector at low wages and live in slums and informal settlements without access to basic amenities like water and sanitation. Even after the 74th amendment, after which local governments were given constitutional status, it did not result in decision making power or capacity to generate resources on their own. As a result, the urban local bodies were not equipped to manage the urban growth efficiently. Consequently, Indian cities faced twin crises of an increase in vulnerability of poor and migrants and the inadequate capacity of the state and market to address these. Urban distress aims to place the idea of mismatch between the increasing vulnerability of urban poor living in small towns and big cities and the inability of the local government to address it, as one of the central concerns of urban governance in India.

The biggest challenge for highly distressed cities like Motihari and Supaul in Bihar, or Mayurbhanj in Odisha, is to improve the capacity of the ULB and simultaneously address the vulnerabilities of the household. The current resource allocation mechanism for the cities also creates hurdles for the smaller cities. The grants from the union and state government are linked to the ability of the urban areas to undertake administrative reforms. As a result small towns are disadvantaged, as they cannot carry out administrative reforms, and hence do not receive adequate funds, and due to this, their ability to carry out reforms is further curtailed, trapping them in a low-capacity low-resource trap. Unlike some bigger cities like Pune and Indore, they cannot raise resources from the capital market because of their poor financial performance and low economic base. Many small towns act as the source of livelihood for nearby rural areas due to limited employment opportunities in the villages, so more and more people are coming to these small towns in search of employment. The size of the economy in the small towns is not big enough to provide employment to a large number of unskilled labours, further increasing their occupational vulnerability.

Moreover, the current indices for measuring the quality of urbanization do not focus on the mismatch between the needs of the urban poor and the capacity of the ULB to address it. They are primarily concerned with measuring the quality of life in urban areas and the extent of administrative reforms, but do not juxtapose them to understand the gap between the quality of life and urban governance. They also neglect the overall macroeconomic context, which increasingly influences the city economy more and more. They also do not consider the future socio-economic risks that the city faces due to the lack of economic diversity and other vulnerabilities faced by households and the city. Measuring the level of distress in urban areas can draw the attention of policymakers towards challenges faced at the city scale and household scale.

As cities become more important in the global economy, making the city inclusive, safe, resilient, and sustainable is of paramount importance. The 'New Urban Agenda' aims to end poverty in all forms and dimensions, leverage agglomeration benefits of well-planned urbanization and ensure environmental sustainability by promoting clean energy and sustainable use of resources. To achieve this, the analysis of urbanization in the global south need to shift beyond the binaries like slum/non-slums, formal/ informal, planned/unplanned and focus on identifying. The need to simultaneously address the challenges at different scales is key to resolving the urbanization crisis in the global south. The idea of urban distress in the context of urbanization in the global south can help us simultaneously look at the challenges faced by cities on different scales and dimensions. It can help the cities build back better in the post-pandemic world and help them prepare for future socio-economic shocks.

REFERENCES

- Ahluwalia, I. J., Kanbur, R., & Mohanty, P. K. (Eds.). (2014). Urbanisation in India: Challenges, opportunities and the way forward. SAGE Publications India.
- 2. Ahsan, R. N., & Mitra, D. (2017). Can the whole actually be greater than the sum of its parts? Lessons from India's growing economy and its evolving structure. Structural change, fundamentals, and growth: A framework and case studies, 39-80.
- 3. Aryeetey, E., & Moyo, N. (2012). Industrialisation for structural transformation in Africa: Appropriate roles for the state. Journal of African Economies, 21(suppl_2), ii55ii85.
- 4. Aschauer, D. A. (1989). Public investment and productivity growth in the Group of Seven. Economic perspectives, 13(5), 17-25.
- 5. Bairoch, P. (1991). Cities and economic development: from the dawn of history to the present. University of Chicago Press.
- 6. Bhalla, S. (1993). Patterns of employment generation. The Indian journal of labour economics, 36(4), 506-24.
- 7. Binswanger-Mkhize, H. P. (2013). The stunted structural transformation of the Indian economy: Agriculture, manufacturing and the rural non-farm sector. Economic and Political weekly, 5-13.
- Bloom, D. E., Canning, D., & Fink, G. (2008). Urbanization and the wealth of nations. Science, 319(5864), 772-775.
- Tine Buffel, Chris Phillipson, Can global cities be 'age-friendly cities'? Urban development and ageing populations, Cities, Volume 55, 2016, Pages 94-100, ISSN 0264-2751, <u>https://doi.org/10.1016/j.cities.2016.03.016</u>.
- Chinitz, B. (1961). Contrasts in agglomeration: New york and pittsburgh. The American Economic Review, 279-289.
- 11. Calderón, C., & Servén, L. (2004). The effects of infrastructure development on growth and income distribution. The World Bank.
- 12. Conway, M., & Konvitz, J. (2000). Meeting the challenge of distressed urban areas. Urban Studies, 37(4), 749-774.

- 13. Dean, A. (2013). Tackling long-term unemployment amongst vulnerable groups.
- 14. Denis, E., & Marius-Gnanou, K. (2011). Toward a better appraisal of urbanization in India. Cybergeo. European Journal of Geography, 569.
- 15. Denis, E., Mukhopadhyay, P., & Zérah, M. H. (2012). Subaltern urbanisation in India. Economic and political weekly, 47(30), 52-62.
- 16. Dietrich, Andreas (2009) : Does growth cause structural change, or is it the other way round?: a dynamic panel data analyses for seven OECD countries, Jena Economic Research Papers, No. 2009,034, Friedrich Schiller University Jena and Max Planck Institute of Economics, Jena
- 17. Duranton, Gilles, and Matthew A. Turner. "The fundamental law of road congestion: Evidence from US cities." American Economic Review 101.6 (2011): 2616-52.
- 18. Florida, R. (2003). Cities and the creative class. City & community, 2(1), 3-19.
- 19. Fukuyama, F. (2013). What is governance?. Governance, 26(3), 347-368.
- 20. Gandy, M. (2008). Landscapes of disaster: water, modernity, and urban fragmentation in Mumbai. Environment and planning A, 40(1), 108-130.
- 21. GILES, H., & BROWN, B. (1997). 'And Not a Drop to Drink': Water and Sanitation Services to the Urban Poor in the Developing World. Geography, 82(2), 97-109. Retrieved January 20, 2020
- 22. Glaeser, E. L., & Kohlhase, J. E. (2004). Cities, regions and the decline of transport costs. In fifty years of regional science (pp. 197-228). Springer, Berlin, Heidelberg.
- 23. Glaeser, E. L., & Resseger, M. G. (2010). The complementarity between cities and skills. Journal of Regional Science, 50(1), 221-244.
- Guin, D. (2018). From large villages to small towns: A study of rural transformation in new census towns, India. International Journal of Rural Management, 14(2), 87-109.

- 25. Gupta, D. (2005). Whither the Indian Village?: Culture and Agriculture in 'Rural'India. Review of Development and Change, 10(1), 1-20.
- 26. Hashim Committee. (2012). Report of the Expert Group To Recommend the Detailed Methodology for Identification of Families Living Below Poverty Line in the Urban Areas. PPD, Planning Commission, GOI.
- 27. Himanshu (2007): "Employment Trends in India: A Fresh Look at Past Trends and Recent Evidence", Preliminary draft of paper presented at conference on "Sustainable Developments and Livelihoods", Delhi School of Economics
- 28. Himanshu. (2006). Urban Poverty in India by Size Class of Towns: Level, Trends and Characteristics.
- 29. Jodhka, S. S. (2014). Emergent ruralities: Revisiting village life and agrarian change in Haryana. Economic and Political Weekly, 5-17.
- 30. Kashyap, S. P., & Mehta, N. (2007). Non-farm sector in India: Temporal and Spatial aspects. The Indian Journal of Labour Economics, 50(4), 611-632.
- 31. Khan, S. (2014). The other JNNURM: What does it mean for small towns in India. Centre for Policy Research Working Paper.
- 32. Kim, S. (1999). Urban development in the United States, 1690-1990 (No. w7120). National Bureau of Economic Research.
- 33. Krugman, P. (1991). Increasing returns and economic geography. Journal of political economy, 99(3), 483-499.
- Kumar A. Housing Shortages in Urban India and Socioeconomic Facets. Journal of Infrastructure Development. 2015;7(1):19-34. doi:10.1177/0974930615578499
- 35. Kumar, S. (2016). Agrarian transformation and the new rurality in Western Uttar Pradesh. Economic and Political Weekly, 51(26&27), 61-71.
- 36. Kundu, A. (2011). Trends and processes of urbanisation in India.
- 37. Kundu, A. (2014). Exclusionary growth, poverty and India's emerging urban structure. Social Change, 44(4), 541-566.
- 38. Kundu, A., & Sarangi, N. (2005). Issue of urban exclusion. Economic and Political Weekly, 3642-3646.

- 39. Lanjouw, P., & Shariff, A. (2004). Rural non-farm employment in India: Access, incomes and poverty impact. Economic and Political Weekly, 4429-4446.
- 40. Loayza, N. (1999). The economics of the informal sector: a simple model and some empirical evidence from Latin America. The World Bank.
- Marx, B., Stoker, T., & Suri, T. (2013). The economics of slums in the developing world. Journal of Economic perspectives, 27(4), 187-210.
- 42. McLaughlin, G. E. (1930). Industrial diversification in American cities. The Quarterly Journal of Economics, 45(1), 131-149.
- 43. Mitra, A., & Kumar, R. (2015). New patterns in Indian urbanization: Emergence of census towns. Environment and Urbanization ASIA, 6(1), 18-27.
- 44. <u>https://smartnet.niua.org/eol19/pdf/EOL-2019-</u> <u>Completed-Version.pdf</u>
- 45. Mukhopadhyay, P. (2017). Does administrative status matter for small towns in India?. In Subaltern urbanisation in India (pp. 443-469). Springer, New Delhi.
- Nallathiga, R. (2007). Housing policy in India: Challenges and reform. Review of Development and Change, 12(1), 71-98.
- National Commission for Enterprises in the Unorganised Sector, & Academic Foundation (New Delhi, India).
 (2008). Report on conditions of work and promotion of livelihoods in the unorganised sector. Academic Foundation.
- Nichols, A., Mitchell, J., & Lindner, S. (2013). Consequences of long-term unemployment. Washington, DC: The Urban Institute.
- Onda, K., Sinha, P., Gaughan, A.E., Stevens, F.R. & Kaza, N. (2019). Missing millions: undercounting urbanization in India. Population and Environment 41, p. 126–150. <u>https://doi.org/10.1007/s11111-019-00329-2</u>
- 50. Papola, T. S. (1992). Rural non-farm employment: An assessment of recent trends. The Indian Journal of Labour Economics, 35(3), 238-45.
- 51. <u>https://www.thehindu.com/news/national/union-health-ministry-and-indian-council-medical-research-press-conference-in-new-delhi-on-june-11-2020/article31804894.ece</u>

- 52. Pradhan, K. C. (2012). The new census towns of India. Mimeo, Centre for Policy Research, New Delhi.
- 53. Prasad, R. Problems of senior citizens in India. (2017). International Journal of Humanities and Social Science Research. Volume 3; Issue 1; January 2017; Page No. 35-37. ISSN: 2455-2070.
- 54. Raman, B., Prasad-Aleyamma, M., & Bercegol, R. (2015). Selected readings on small town dynamics in India.
- 55. Michaels, G., Rauch, F., & Redding, S. J. (2012). Urbanization and structural transformation. The Quarterly Journal of Economics, 127(2), 535-586.
- 56. Rauch, James E. "Productivity gains from geographic concentration of human capital: evidence from the cities." Journal of urban economics 34.3 (1993): 380-400.
- 57. Rauch, J. E. (1993). Productivity gains from geographic concentration of human capital: evidence from the cities. Journal of urban economics, 34(3), 380-400.
- Resnick, D. (2016). Strong democracy, weak state: The political economy of Ghana's stalled structural transformation (Vol. 1574). Intl Food Policy Res Inst.
- 59. Rhoades, S. A. (1993). The herfindahl-hirschman index. Fed. Res. Bull., 79, 188.
- 60. Samanta, G. (2014). The politics of classification and the complexity of governance in census towns. Economic and Political weekly, 55-62.
- Sankhe, S., Vittal, I., Dobbs, R., Mohan, A., Gulati, A., Ablett, J., ... & Setyy, G. (2010). India's urban awakening: Building inclusive cities, sustaining economic growth (p. 234). Mumbai: McKinsey Global Institute.
- 62. Sengupta S, Jha MK. Social Policy, COVID-19 and Impoverished Migrants: Challenges and Prospects in Locked Down India. The International Journal of Community and Social Development. 2020;2(2):152-172. doi:10.1177/2516602620933715
- 63. SHARMA, K. (2012). Rejuvenating India's Small Towns. Economic and Political Weekly, 47(30), 63-68. Retrieved January 14, 2021, from <u>http://www.jstor.org/</u> <u>stable/23251769</u>

- 64. Kingra, H. S., Singh, S., Kaur, M., & Bhogal, S. (2020). Income and economic inequality of marginal and small farmers in Punjab. Indian Journal of Economics and Development, 16(2s), 408-413.
- Singh, G., Vithayathil, T., & Pradhan, K. C. (2019). Recasting inequality: residential segregation by caste over time in urban India. Environment and Urbanization, 31(2), 615–634. <u>https://doi.org/10.1177/0956247818812330</u>
- 66. Sircar, S. (2017). Placing the Urban in its Rural Context: A Mixed Methods Case Study of a 'Census Town'in India. Urbanisation, 2(2), 98-115.
- 67. Cecilia Tacoli, Gordon McGranahan and David Satterthwaite. 2015. Urbanisation, rural–urban migration and urban poverty. IIED Working Paper. IIED, London
- Thind, M., & Singh, L. (2018). Structural Change and Economic Growth across Major States of India. Millennial Asia, 9(2), 162-182.
- 69. Thorat, S. and Katherine, N. (2010). Blocked by Caste: Economic Discrimination and Social Exclusion in Modern India, New Delhi: Oxford University Press.
- 70. Unni, J. (1991). Regional variations in rural nonagricultural employment: An exploratory analysis. Economic and Political Weekly, 109-122.
- 71. Vaddiraju, A. K. (2020). District-level Urban Governance Policies in India: Cities of Neglect?. Journal of Leadership, Accountability & Ethics, 17(4).
- 72. Verma, R. (2012). Can total factor productivity explain value added growth in services?. Journal of Development Economics, 99(1), 163-177.
- 73. Wankhade, K. (2015). Urban sanitation in India: key shifts in the national policy frame. Environment and Urbanization, 27(2), 555-572.
- Zérah, M. H., & Denis, E. (2017). Introduction: Reclaiming small towns. In Subaltern Urbanisation in India (pp. 1-35). Springer, New Delhi.
- 75. Yu Zhu, Min Lin, Liyue Lin and Jinmei Chen. (2013). The Extent of In Situ Urbanisation in China's County Areas

SCALING CITY INSTITUTIONS FOR INDIA (SCI-FI)

The programme seeks to improve the understanding of the reasons for poor sanitation, and to examine how these might be related to technology Sanitation programme at the Centre for Policy Research (CPR) is a multi-disciplinary research, outreach and policy support initiative and service delivery models, institutions, governance and financial issues, and socio-economic dimensions.

Based on research findings, it seeks to support national, state and city authorities develop policies and programmes for intervention with the goal of increasing access to inclusive, safe and sustainable sanitation. Initiated in 2013, the programme is primarily funded by the Bill and Melinda Gates Foundation (BMGF).



scifi.cprindia.org





@Scaling City Institutions for India (SCI-FI)



Dharma Marg, Chanakyapuri, New Delhi 110021 <u>WWW.CPRINDIA.ORG</u>



http://cprindia.org/projects/ scaling-city-institutionsindia-sanitation