

# Re FORM

LESSONS FOR URBAN GOVERNANCE  
FUTURES FROM THE PANDEMIC



SUBMITTED TO:  
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(FCDO)



SUBMITTED BY:  
Scaling City Institutions for India (SCI FI)  
Centre for Policy Research





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| List of Abbreviations |                                                                 |                |                                                                 |
|-----------------------|-----------------------------------------------------------------|----------------|-----------------------------------------------------------------|
| AB-PMJAY              | Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana beneficiaries | AD             | Anno Domini                                                     |
| ADB                   | Asian Development Bank                                          | AHRC           | Affordable Rental Housing Complex                               |
| AMRUT                 | Atal Mission for Rejuvenation and Urban Transformation          | ANI            | Asian News International                                        |
| ANM                   | Auxiliary Nursing Midwifery                                     | Approx.        | Approximately                                                   |
| ASHA                  | Accredited Social Health Activist                               | AWWs           | Anganwadi Workers                                               |
| AYUSH                 | Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy     | BASUDHA Scheme | Buxi Jagabandhu Assured Water Supply to Habitations Scheme      |
| BB                    | Bangladesh Bank                                                 | BCE            | Before Common Era                                               |
| BCM                   | Billion Cubic Metre                                             | BDT            | Bangladeshi Taka                                                |
| BIS                   | Bureau of Indian Standards                                      | BMC            | Bhilai Municipal Corporation/ Bhubaneswar Municipal Corporation |
| BMRCL                 | Bangalore Metro Rail Corporation Ltd.                           | Bn             | Billion                                                         |
| BNG                   | Breaking New Ground                                             | CAA            | Constitutional Amendment Act                                    |
| CBOs                  | Community Based Organisations                                   | CCMC           | COVID-19 Crisis Management Committee                            |
| CCTV                  | Closed-Circuit Television                                       | CDC Act        | Communicable Disease Control Act, 2004                          |
| CDC                   | Centres for Disease Control<br>City Development Committees      | CEO            | Chief Executive Officer                                         |
| CERP                  | COVID-19 Economic Relief Plan                                   | COVID          | Coronavirus Disease                                             |
| CPR                   | Centre for Policy Research                                      | CPRP           | Country Preparedness and Response Plan                          |
| CSOs                  | Civil Society Organisations                                     | CT             | Community Toilet                                                |
| DALY                  | Disability Adjusted Life Years                                  | DC             | District Collector                                              |
| DBT                   | Direct Benefit Transfer                                         | DGHS           | Directorate General of Health Services                          |
| DD News               | Doordarshan News                                                | DMA            | Disaster Management Act, 2005                                   |
| DJB                   | Delhi Jal Board                                                 | DPP Act        | Disaster Prevention and Protection Act                          |
| DMRC                  | Delhi Metro Rail Corporation Limited                            | DU             | Dwelling unit                                                   |
| DRR                   | Disaster Risk reduction                                         | DUDS           | District Urban Development Council                              |
| DUDA                  | District Urban Development Authority                            | EPFO           | Employees' Provident Fund Organization                          |
| EO                    | Executive Officer                                               | ESI            | Employee State Insurance                                        |
| ePoS                  | Electronic Point of Sale                                        | EWS            | Economically Weaker Section                                     |
| ET                    | Economic Times                                                  | FLW            | Frontline Health Worker                                         |
| FCDO                  | Foreign, Commonwealth & Development Office                      | FSC            | Food Supply Chain                                               |
| FPS                   | Fair Price Shop                                                 | FY             | Financial Year                                                  |
| FSCR                  | Food Supply Control Room                                        | GOARN          | Global Outbreak Alert and Response Network                      |
| GDP                   | Gross Domestic Product                                          | GoN/GON        | Government of Nepal                                             |
| GoI/GOI               | Government of India                                             | HCW            | Healthcare workers                                              |
| Govt                  | Government                                                      | HHS            | Households                                                      |

| List of Abbreviations |                                                                      |        |                                                         |
|-----------------------|----------------------------------------------------------------------|--------|---------------------------------------------------------|
| HLRN                  | Housing and Land Rights Network                                      | HLCC   | High level Coordination Committee                       |
| HIV- AIDS             | Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome | IANs   | Indo-Asian News Service                                 |
| IAAPI                 | Indian Association of Amusement Parks and Industries                 | ICU    | Intensive Care Unit                                     |
| ICCC                  | Integrated Control Command Centres                                   | IDP    | Internally Displaced Persons                            |
| ICMR                  | Indian Council of Medical Research                                   | IEDCR  | Institute of Epidemiology, Disease Control and Research |
| IEC                   | Information, Education and Communication                             | IHHL   | Individual Household Latrine                            |
| IFPRI                 | International Food Policy Research Institute                         | ILO    | International Labour Organisation                       |
| ILI                   | Influenza like Illnesses                                             | INR    | Indian National Rupee                                   |
| IMF                   | International Monetary Fund                                          | JNNURM | Jawaharlal Nehru National Urban Renewal Mission         |
| IT                    | Information Technology                                               | K-GIS  | Karnataka Geographic Information System                 |
| J&K                   | Jammu and Kashmir                                                    | Km     | Kilometre                                               |
| KIIs                  | Key Informant Interviews                                             | KUKL   | Kathmandu Upatyaka Khanepani Limited                    |
| KPMG                  | Klynveld Peat Marwick Goerdeler                                      | LIG    | Lower Income Group                                      |
| LC                    | Letters of Credit                                                    | LPG    | Liquefied Petroleum Gas                                 |
| LMIC                  | Low and Middle Income Countries                                      | MC     | Municipal Commissioner                                  |
| LFS                   | Laborforce Survey                                                    | MERS   | Middle-East Respiratory Syndrome                        |
| MERRP                 | Myanmar Economic Resilience and Relief Plan                          | MJPJAY | Mahatma Jyotiba Phule Jan Arogya Yojana                 |
| MHA                   | Ministry of Home Affairs                                             | MoJS   | Ministry of Jal Shakti                                  |
| MMK                   | Myanmar Kyats                                                        | MoHFW  | Ministry of Health and Family Welfare                   |
| Mn                    | Million                                                              | MoHUA  | Ministry of Housing and Urban Affairs                   |
| MoHP                  | Ministry of Health and Population                                    | MoSPI  | Ministry of Statistics and Programme Implementation     |
| MoUD                  | Ministry of Urban Development                                        | NABH   | National Accreditation Board for Hospitals              |
| MSME                  | Ministry of Micro, Small and Medium Enterprise                       | NBE    | National Board of Examination                           |
| NASVI                 | National Association of Street Vendors of India                      | NCID   | National Centre for Infectious Diseases                 |
| NCD                   | Non Communicable Diseases                                            | NCW    | National Commission for Women                           |
| NCT                   | National Capital Territory                                           | NITI   | National Institution for Transforming India             |
| NGO                   | Non –Government Organisation                                         | NHP    | National Health Policy                                  |
| NHA                   | National Health Authority                                            | NPR    | Nepalese Rupee                                          |
| NMT                   | Non Motorised Transport                                              | NSS    | National Sample Survey                                  |
| NPRP                  | National Preparedness and Response Plan                              | NULM   | National Urban Livelihood Mission                       |
| NUHM                  | National Urban Health Mission                                        | O&M    | Operation and Maintenance                               |



| List of Abbreviations |                                                                     |             |                                                    |
|-----------------------|---------------------------------------------------------------------|-------------|----------------------------------------------------|
| NUTP                  | National Urban Transport Policy                                     | ODF         | Open Defecation Free                               |
| OCV                   | Oral Cholera Vaccine                                                | OPD         | Outpatient Department                              |
| ONORC                 | One Nation One Ration Card                                          | PDS         | Public Distribution System                         |
| OSS                   | On-site Sanitation                                                  | PM-ABJAY    | Pradhan Mantri Ayushman Bharat Jan Arogya Yojana   |
| PIB                   | Press Information Bureau                                            | PMAY- U     | Pradhan Mantri Awas Yojana- Urban                  |
| PMAY                  | Pradhan Mantri Awas Yojana                                          | PM SVANidhi | Pradhan Mantri Street Vendor's Atma Nirbhar Nidhi  |
| PMGKY                 | Pradhan Mantri Garib Kalyan Yojana                                  | POEs        | Points of Entry                                    |
| PMC                   | Pune Municipal Corporation                                          | PPP         | Public Private Partnership                         |
| PPE                   | Personal Protective Equipment                                       | PTI         | Press Trust of India                               |
| PT                    | Public Toilet                                                       | RAY         | Rajiv Awas Yojana                                  |
| QR                    | Quick Response                                                      | RBSK        | Rashtriya Bal Swasthya Karyakram                   |
| RBM                   | Roll Back Malaria                                                   | RSCL        | Raipur Smart City Limited                          |
| RERA                  | Real Estate Regulation Authority                                    | RO          | R –naught                                          |
| RT-PCR                | Reverse Transcription–Polymerase Chain Reaction                     | SARI        | Severe Acute Respiratory Infection                 |
| RWA                   | Resident Welfare Association                                        | SBM         | Swachh Bharat Mission                              |
| SARS                  | Severe Acute Respiratory Syndrome                                   | SC          | Supreme Court                                      |
| SEWA                  | Self Employed Women's Association                                   | SOP         | Standard Operating Procedure                       |
| SMEs                  | Small and Medium Enterprises                                        | STIDH       | Sukraraj Infectious and Tropical Disease Hospital  |
| SPCCCH                | Sardar Patel COVID-19 Care Centre and Hospital                      | TMC         | Town Municipal Council                             |
| TBS                   | The Business Standard                                               | TVC         | Town Vending Committee                             |
| ToI                   | Times of India                                                      | ULB         | Urban Local Body                                   |
| UITP                  | International Association of Public Transport                       | UOI         | Union of India                                     |
| UNESCO                | United Nations Educational, Scientific and Cultural Organization    | UK          | United Kingdom                                     |
| URDPFI                | Urban and Regional Development Plans Formulation and Implementation | UNB         | United News Bangladesh                             |
| UN                    | United Nations                                                      | UNSDG       | United Nations Sustainable Development Goals       |
| UNICEF                | United Nations Children's Fund                                      | USAID       | United States Agency for International Development |
| USA                   | United States of America                                            | UWEI        | Urban Wage Employment Initiative                   |
| USD                   | United States Dollar                                                | WASH        | Water, Sanitation and Hygiene                      |
| VAT                   | Value Added Tax                                                     | WHO         | World Health Organisation                          |
| WB                    | World Bank                                                          | WPR         | Work Participation Rate                            |

## PREFACE AND ACKNOWLEDGEMENT

COVID-19 pandemic has impacted one and all in this world. However, by nature, the pandemics are relentless to the poor and marginalised who get further vulnerable due to the deepening of inequities. COVID-19, as a pandemic, is no different. It led to job losses, shrinking of economies, loss of livelihood, deaths of millions of people, debilitated social protection measures and deepened the digital divide. Urban poor, who live in precarious conditions in slums in the cities and migrate to the cities for livelihood were left most vulnerable due to lockdown. A massive exodus of people and short term migrants from our cities was witnessed by all citizens and by the world at large and it exposed the increasing vulnerabilities of poor, fragile governance mechanisms, weak infrastructure and inadequate policies to address a pandemic of this magnitude and nature.

This report titled “Re-FORM: Lessons for Urban Governance futures from the Pandemic” is based on the study which was undertaken by Scaling City Institutions for India (SCI-FI), Centre for Policy Research (CPR). The study explores the impact of COVID-19 on public spaces, housing and slums, water and sanitation, public health, and clinical health, livelihood, and social protection in urban areas of the country. The study also analyses the policy gaps and governance systems in addressing pandemic in the country. It underscores the need to ensure that the measures taken to combat pandemic have to be across short, medium and long term.

We are extremely indebted to South Asia Research Hub (SARH), Foreign, Commonwealth and Development office (FCDO), Government of UK for providing us the opportunity to undertake this timely study to understand the gaps in response of pandemic by the Government and to provide recommendations to attenuate the impacts of such pandemic by framing apt urban policies and strengthening governance mechanisms to implement policies on the ground. On the one hand, the study gave us an opportunity to explore the responses of Government, Civil society organisations during the pandemic and on the other hand, it enabled us to capture the voices from the most impacted communities and individuals. We wish to acknowledge the support of civil society organisations like PRIA (Delhi), Child Survival India (Delhi), Working People’s Charter (Pune) for providing support in the field research in Ajmer, Jhansi, Muzaffarpur, and Pune.

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## Executive Summary

The outbreak of COVID-19 and the associated lockdowns have exacerbated pre-existing vulnerabilities of marginalised groups living in Indian cities/towns, including workers engaged in the informal sector as well urban poor living in congested and overcrowded informal settlements with inadequate housing and limited access to water, sanitation and health facilities – all of which are essential to reduce chances of getting infected with the virus. This study aims to document specific vulnerabilities of the urban poor in the context of past pandemics, as well as during COVID-19, in order to craft specific urban planning recommendations to build greater resilience in cities in South Asia, in general and India, in particular.

The study envisaged assessing the intersection between urban policy, planning and pandemics adopting an inter-disciplinary conceptual framework and methodology. The intersection between urban planning and pandemics was researched under five main themes: Public Spaces; Housing and Slums; Water, Sanitation, and Hygiene; Public health including clinical care; and Livelihoods and Social Protection. The impact of COVID-19 on these themes, in an urban context, was analysed at the Global, South Asia, and specifically at India level.

Given that much of the focus of local governments has been on sectors such as housing and slums; water and sanitation, and maintaining public spaces, the subjects of urban planning, public health including clinical care, livelihoods and social protection of urban workers, remain largely neglected at the local level – these inadequacies in our planning and governance systems came to the fore during the COVID-19 pandemic. This study has attempted to link them to the conception of urban planning, which points to future directions by highlighting the limitations of the current institutional arrangements and capacities around urban planning in India.

The study followed a mixed-methods approach, including primary and secondary research methodologies. A detailed secondary literature review was undertaken to understand how earlier pandemics have shaped the form and processes across the themes mentioned above. A global timeline of public policy interventions in response to pandemics has been documented as part of this research. The literature review was undertaken at three levels – Global, South Asian and four select countries of India, Bangladesh, Myanmar, and Nepal. For each of the countries, "Country Profiles" were prepared, enabling cross country comparisons on response to COVID-19.

Further, under the current study, an innovative tool – the Press Scan Analysis – was undertaken based on the press coverage from January to September 2020. The Press Scan covered 38, 7484 sources globally and 7,003 sources at the India level. It helped generate a total reach of 62 billion articles at the following levels – global, South Asia (including India, Myanmar, Bangladesh & Nepal), five Indian cities (Delhi, Pune, Bangalore, Bhubaneswar and Bhubaneswar) and six towns (Malerkotla, Jhansi, Lingasugur, Ajmer, Dhenkanal and Muzzafarpur) along with Dhaka, Yangon & Kathmandu. The Press Scan Analysis was instrumental in garnering information about perceptions and critical issues discussed in multiple geographies through media reporting on COVID-19.

The primary research covered 11 cities/towns selected to ensure representation of various geographical regions, different size classes of urban settlements (large, medium, small), varying densities and diverse nature of economic activities. The primary data collection was done using structured questionnaires administered to Key Informants, such as representatives from the Government, Civil Society

Organisations (CSOs), Community Based Organisations (CBOs) and communities. A total of 158 Key Informant Interviews (KIIs) were conducted across 11 cities. Additionally, four expert interviews were conducted in other cities to complement the KIIs.

On analysing the primary evidence from the KIIs alongside the findings of the press scan and secondary literature, three broad themes a) Building urban resilience through integrated planning b) Enable legal reforms and revisit governance responsibilities, scales and interfaces and c) Attenuate formal/informal categories to universalise access were identified as basic principles for reforming urban governance in India. "Resilient" is defined as the capacity of an urban system to withstand shocks and to continue to function efficiently despite it. An integrated approach to planning of urban centres is critical for building resilience. Such an approach must have spatial/physical, social and economic planning as its cornerstones. Cities and towns need to be encouraged and supported to adopt a dynamic, spatial planning perspective which is a paradigm shift from the static land-use planning approach currently being practiced in India, alongside taking into cognisance the social realities in cities and building resilient economies. The existing shreds of evidence from earlier epidemics/pandemics with zoonotic diseases originating from wet markets, spatial plans must make provisions for the clear separation of wet markets in Indian cities as a strategy to combat zoonotic diseases at these potential sites of origin and early spread. Besides, cities must also ensure adequate provision of safe transportation services and encourage shifts towards Non-Motorised Transport (NMT), which have been observed during the COVID-19 pandemic. There is a need to encourage such shifts by making adequate infrastructure provisions for walking and cycling, even if these trends remain common only among a particular section of society. Transport systems must also be resilient to future pandemics by putting in place safety and hygiene protocols and encouraging safe practices among users. Adequate provision of open and green spaces will enable citizens to have better mental health and experience well-being. The COVID-19 pandemic exposed the inadequacies of India's public health systems which are underfunded, ill-equipped and understaffed. The government of India, through the Ministry of Health and Family Welfare, must ensure that adequate investments are made to bolster the public health care system, including infrastructure, human resources along with capacities, to ensure continuity of services even during a public health emergency, with a particular focus on the vulnerable and marginalised communities.

Any attempts to make urban centres resilient in the face of public health emergencies such as COVID-19 would require reform of the existing legal framework about public health emergencies and disaster management. India's response to the COVID-19 pandemic was backed by invoking the Epidemic Act, 1897 and the Disaster Management Act, 2005. The Epidemic Act, 1897 is precolonial legislation that has outdated its scope to deal with compelling situations like the ones being faced during the COVID-19 pandemic. There is, thus, an urgent need to promulgate legislation on Public Health for the prevention, control and management of epidemics. Further, while the Disaster Management Act, 2005 provides a framework for institutional response in case of disasters is, it defines the roles of different tiers of government quite clearly albeit at times very rigidly. However, this framework does not provide adequate authority to local governments for anchoring local level responses. The experience, during the current pandemic, has been that urban local governments have played a key role in leading the response, including the setting up of relief camps/shelters for migrants, establishing quarantine and treatment centres, implementing safety measures and ensuring uninterrupted delivery of essential services such as water, sanitation, solid and liquid waste management, among others. Being institutions of local governance, with an area of jurisdiction that is closest to the ground, the involvement of local

governments in public health emergency response is critical and must be suitably incorporated in any public health emergency related legislation. Besides, there is a need to strengthen the Disaster Risk Reduction (DRR) Framework to ensure better cognisance of the current social realities, including specific provisions for zoonotic diseases. Given Smart Cities' experience, which could leverage recently augmented mapping and spatial analytics capacities for disease surveillance and monitoring, the scope for using the available infrastructure, should be expanded to planning and welfare oriented tasks. Such learnings may also be used to provide the required digital infrastructure in other cities and towns and build capacities for managing the same. Enhancing the use of such systems beyond disease surveillance to welfare-oriented tasks must also be ensured. There is a need to revisit the Data Protection Bill, 2019 to integrate adequate safeguards ensuring the right to privacy when data is collected during a public health emergency. There is a need to expand engagement with the fourth tier of government, i.e. Community Based Organisations (Self Help Groups and Slum Dwellers Associations), to ensure a truly relevant and timely response enabling opportunities for localised action and innovation. The Frontline Workers (FLWs) shouldered additional responsibilities as they were the first line of response from the government during COVID-19, especially for the vulnerable communities. This presented them with an extremely challenging situation that not only demanded additional working hours without supplementary remuneration but also increased their risk of exposure to the disease itself. There is a need to ensure that the potential risks facing FLWs are reduced, their skills and capacities strengthened (for conducting door to door surveys, reading data and maps, and using digital technologies) and making them more aware of the insurance and social security schemes available for them.

The COVID-19 pandemic has highlighted one of the most crucial vulnerabilities of the Indian economy; its large informal sector, the state of the labours engaged and their living conditions. There is an urgent need to strengthen labour laws and do away with any scope for compromising labour rights even on the pretext of the economy's resurrection. Also, informal sector workers (including migrant workers) need to access the available social security schemes, and thus adequate awareness needs to be generated among potential beneficiaries. Street vendors emerged as a group that was severely affected by the lockdown. In order to ensure resilience, special provisions must be made for street vendors, including the provision of street vending zones and natural markets, integrating safety and hygiene practices in these markets and ensuring access to welfare and credit schemes. The biggest crisis in India's lockdown was the large exodus of migrant workers, who found themselves without a house and income, and thus had to walk or cycle back to their villages. The crisis brought to light the living conditions of the migrant workers and the need to augment rental housing for them in Indian cities. Rental housing is vital for migrants because it allows them mobility for better economic opportunities without significant costs. Further, universal access to adequate housing and water and sanitation services, a long-standing commitment of Gol under the UN SDGs, has gained greater importance in the current pandemic and must be prioritised.



### Building urban resilience through integrated planning

Ensure provision of safe public transport services and infrastructure to support Non-Motorised Transport

Adoption of strategic planning approach in small towns to promote resilient urban development

Earmarking of open and green spaces as a part of all urban infrastructure programs and enable safe access for all urban residents

Clear separation of wet markets and strict regulation, as a strategy for combating zoonotic diseases

Revisit the National Health Policy to ensure adequate investments for augmenting public health infrastructure

Ensuring business continuity and realigning flexibility

### Enable legal reforms and revisit governance responsibilities, scales and interfaces

Expand engagement with the fourth tier of government alongside providing opportunities for localised action and innovation

Minimise risks, ensure preparedness and create awareness on schemes meant for Frontline Workers

Ensure decision making transparency through use of technology and legal reforms to ensure privacy

Reform legislative framework for managing public health emergencies and empower local governments to lead relief, response and mitigation

Strengthen the Disaster Risk Reduction framework to ensure better cognizance of current social realities alongside integrating provisions for zoonotic diseases

### Attenuate formal/informal categories to universalise access

Labour laws should categorically earmark non-negotiable aspects, which cannot be amended even in emergencies

Ensure social security coverage for workers in the unorganized sector through simplification of procedures and improved awareness

Augment rental housing for migrants

Enabling special provisions for street vendors through earmarking street vending zones and integrating safety and hygiene practices

Prioritising upgradation of slums/informal settlements and providing in house water supply and sanitation services as part of “build back better” strategy



This research study, has documented and analysed systemic challenges that urban governance in India will need to address in the future. The study will serve as an important resource not only for researchers, Civil Society Organisations, Non-Governmental Organisations and Donor partners working on similar issues but also for government agencies in India at various levels of national, state and local. The findings from this research has identified policy and programmatic agendas for government agencies that can guide carving out a national agenda focused on building resilient urban centres particularly keeping the vulnerable and marginalized communities at the centre.

The current research was a rapid assessment which was conducted during the period September 2020 and January 2021. However, the COVID-19 pandemic is still ongoing and new challenges and opportunities are getting unfolded with each passing day. In fact, we are in a crucial phase of the fight against the disease, as we prepare to build back better while mitigating impacts on socio-economic and health aspects. This context warrants further research, which could be on a longer-term basis, to help strengthen our understanding of the pandemic, its profound impact across various sectors including on the Indian urbanisation. Such research will be extremely beneficial for supporting cities and towns becoming resilient to any future health emergencies.

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***"People make cities, and it is to them, not buildings that we must fit our plans." - (Jacob, 1958)***

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## **1. Introduction: Setting the context, Rationale and Objective of the Study**

The history of pandemics is closely associated with the world's urban history ( Huremović, 2019) (Lee, et al., 2020). The global outbreak of 'COVID-19' a zoonotic pandemic has thus far, been primarily located in urban areas. Nearly 90 per cent of the COVID-19 cases were reported in urban areas (UNSDG, 2020) globally, which accounts for 56 per cent of the global population. Further, the recent accounts of Ebola (2014-15) and Zika (2015- 16) have been in urban areas too and have revealed that social determinants of health significantly contribute to unequal burdens of morbidity and mortality (Khubchandani, Jordan, & Yang, 2020) across and within communities.

The outbreak of COVID-19 has hit the world's most vulnerable people the hardest. It exacerbated pre-existing vulnerabilities of marginalised groups living congested and over-crowded informal settlements (UNHABITAT, 2020). Nearly one billion of the world's population lives in informal settlements and densely populated slums with inadequate household water and sanitation, little or no waste management, and limited access to formal health care facilities. The bulk of these slums are located in three regions: Eastern and South-Eastern Asia (332 million), Central and Southern Asia (197 million) and sub-Saharan Africa (189 million). Over the last fifteen years, between 2000 and 2014, the proportion of world's urban population living in slums has declined by about 20 per cent. However, the absolute number of people living in slums has increased from 807 million to 883 million over this period (UN Department of Economic and Social Affairs, Population Division, 2019). These informal urban settlements are characterised by the insecurity of tenure, high-density living, low literacy rate, unemployment, crime, social, moral and psychological degradation and poor health. There is empirical evidence to show that infants and children residing in slums have a substantially greater incidence of diarrhoeal illness and are less likely to survive to their fifth birthdays than those living in non-slum areas (Günther, Isabel, & Kenneth, 2014).

Given that South Asia is one of the world's poorest and most populous regions. It has the potential for becoming the "hotbed of infectious diseases" (Stone 2020), and it remains highly vulnerable to COVID-19 on account of entrenched vulnerabilities manifested through rampant incidences of overcrowding, densification and weak public health infrastructure. It also accounts for half of the ten most populated cities in the world. Furthermore, it accords for nearly 22 per cent of the global slum population (United Nations, 2021). Although slums provide labour to the urban centres, slum dwellers are exposed to environmental hazards, such as pollution, and increased health risks (UN Department of Economic and Social Affairs, Population Division, 2019). "Informal" or "illegal" status accorded to informal settlements often makes it challenging to collect data and implement policies to improve these localities' health outcomes (Wilkinson, Annie, 2020).

After the outbreak of COVID-19, South Asian governments, not unlike governments elsewhere implemented crude and often draconian public health protection measures of social distancing and sudden lockdowns to reduce human to human contact ensuring slowdown the spread of the disease.

These widely prescribed measures disproportionately impacted the urban poor. The urban poor communities rely on common public spaces for their daily necessities – to fetch water for daily use, use community toilet, access essential healthcare services, or for livelihood. With the pandemic outbreak, as economic activity in cities were shut down, given the high levels of short and insecure work arrangements of the majority of workers in these economies, it resulted in the wide-scale joblessness. Slum-dwellers engaged in daily-wage activities having unstable incomes, and minimal savings faced deprivations. Disruption of the supply chain and restricted mobility made it difficult to access basic goods and services. Therefore, measures, especially those involving physical distancing or lockdowns, imposed negative costs on the informal settlers and slum dwellers who have limited access to safety nets in the form of formalised savings and social protections.

South Asia's share of slums is driven mostly by India, given it is the largest country in the region and is followed by Bangladesh. In India, out of the 377 million population (2011) who lived in urban areas, it was estimated that nearly 35 per cent of the urban population lived in slums in 2018 (World Bank, 2018). Over the next fifteen years, it is estimated that the urban population will increase to 600 million (MoH&FW, Government of India, 2019), which will also be accompanied by an increase in the slum and urban poor populations. Bangladesh has an estimated population of nearly 160 million (Islam & Kibria, 2021). More than one-third of the population lives in the urban area, and of this, nearly 47 per cent live in slums. Furthermore, in Nepal and Myanmar, 49 per cent and 56 per cent of the urban population live in slums with limited access to basic amenities and decent housing (World Bank, 2018).

While India's government response has been able to control the spread, many policy questions came to spotlight. These relate to public spaces, housing and slums, water, sanitation and hygiene, the predominance of informal-unorganised sectors, precarious livelihoods arrangement, weak health capacities and social protection. In this context, it is critical to assess the impact of COVID-19 on slum dwellers in South Asia, focusing on India, Bangladesh, Myanmar and Nepal and strengthening preparedness strategies to build city resilience in order to combat future pandemics.

### **Objectives of the Study**

The study aimed at documenting specific vulnerabilities of people living in informal settlements and the urban poor in the context of past pandemics and during COVID 19 (up to December 2020) and to craft specific urban planning recommendations to build greater resilience in cities in South Asia in general and India in particular. The specific objectives of the study were to:

- Assess impacts of past pandemics on urban poor residing in slums and informal settlements with focus on role of public spaces and the impact due to its restricted access during lockdowns
- Examine how public spaces (public transport, commercial spaces, shopping complexes etc.) were attributed as vectors in the past pandemics
- Examine the impact of past pandemics on the vulnerable population vis-à-vis impacts of other health hazards (like non-communicable diseases, pollution, etc.).
- Critically analyses and synthesize evolution of urban planning policies in response to past pandemics – particularly on urban congestion, public space planning and affordable housing and slum redevelopment for vulnerable population
- Identify physical and institutional infrastructure gaps that have posed challenges to prepare for epidemics or pandemic and

- Examine the impact on livelihood and develop mechanisms to strengthen social and economic safeguards for urban poor to mitigate challenges posed during pandemics and prolonged lockdowns.

The key question that the study aimed to answer is that, *based on the experience from the initial period of COVID-19, what can governments, at all three tiers, do for reshaping urban policies and urban planning to create more resilient cities?*

In examining this question, the study was limited by a short time frame and warranted strategic adaptation of research methods within the broader, geographically diverse and ever transforming context of COVID-19. These challenges varied across geographies, since the progression of the disease varied across Indian cities. A slew of rapid policy action measures were taken by the governments to try and contain the spread of the pandemic. These actions varied across sectors; some of these sectors were worse affected than others owing to the nationwide lockdowns imposed in March 2020 and subsequent easing in a phased manner over a period of 8-10 months. This rapid assessment had to consider health risks for researchers and respondents and the unavailability of respondents owing to economic and psycho-social distress caused by COVID-19. This was alleviated by conducting additional secondary literature reviews in lieu of some primary work, increasing key informant interviews and omitting focus group discussions where social distancing would have been a concern. While innovative methods were used, managing data risks around these less conventional methods, its ability to address concerns around sampling and ethical biases (Naik, 2020) will remain a limitation.

This report also presents recommendations aiming at building urban resilience through integrated planning, highlighting the urgent need for legal reforms and revisiting Governance responsibility, Scales and Interfaces and ascertaining the importance of attenuating informal/formal categories to universalise access in the current policy context. Evidence gathered from the ground is understood to be only symptoms of larger systemic problems. Therefore, constraints faced by communities and governments have been triangulated through discussions with sector experts and secondary resources focusing on longer term sustainability of particular sectors. Accordingly, this report focuses on issues that are fundamentally structural and requires mid-to-long term policy focus for creating more resilient and sustainable solution for the urbanisation in Indian context.

### Structure of the report

The report is divided into nine main sections, including the recommendations sections. **Section 1** introduces the study and outlines the rationale. **Section 2** presents a brief literature review that explores the intersection between urban policies and pandemics. It documents a timeline of the past pandemics that affected urban areas across the globe with specific focus on India and in select South Asian countries (Bangladesh, Myanmar, Nepal), to understand the epidemiological, transmission, health system capability context. This also entails secondary research on evolution of modern planning policies in developing countries in the region and the conditions that led to the growth of informal settlements and slums. Additionally, this encapsulates current urban governance structures and key policies and programs and short (relief phase) and medium term (recovery phase) COVID-19 responses by the government and non-government actors across the themes of public spaces; housing and slums; water, sanitation and hygiene (WASH); public health including clinical care; and livelihoods and social protection. **Section 3** details the conceptual framework and methodology adopted for the study. It

explains the linkages between various methods including the innovate press scan and the primary research used to collect, organise, and analyse primary and secondary data.

**Section 4**, quantitatively represents the impact of the pandemic on India's progress towards the achievements of the Sustainable Development Goal (SDG) 11 for building Sustainable and Cities and Communities. It also discusses the pertinent issues highlighted by the Indian and South Asian press with respect to the five key themes of this study to identify and prioritise specific areas of intervention.

The subsequent sections of the report, section 5 through 7, present the recommendations emerging from this study. **Section 5** on "Building Urban Resilience through Integrated Planning" recommends an integrated approach to the planning of urban centres, which has spatial/physical, social and economic planning as its cornerstones. Cities would need to be encouraged and supported to adopt a dynamic, spatial planning perspective which is a shift from the static land-use planning approach alongside takes into cognizance the social realities as well as the resilience of city economies. Ensuring adherence to the UN 2030 Agenda for Sustainable Development's pledge of "Leaving No One Behind" is a must to ensure that the vulnerabilities of the urban poor and other marginalized communities and population groups are adequately addressed. Any attempts to make urban centres resilient in the face of public health emergencies such as COVID-19 would require legal as well as governance reforms, which has been elaborated in **section 6**, "Enabling Legal Reforms and Revisiting Governance Responsibilities, scales and Interfaces". This section delves on the need to reform the legal framework for disaster management in the country in order to make it cognizant of the current realities as well as the inevitability to re-examine the existing governance structures – the division of roles between the various tiers of governance, inter tier

**Section 7** "Attenuate Formal/Informal Categories to Universalise Access" presents the challenges as well as the action points for ensuring that the gap between the formal and informal spaces in the cities is reduced in order to mitigate the vulnerabilities of urban poor communities and making them an equal part of the urban fabric. It dwells on strengthening of labour laws, removing any scope for compromising labour rights even at the pretext of resurrection of the economy, as well as the need to ensure social security coverage among the potential beneficiaries. The need to ensure universal access to adequate housing, water and sanitation services, a long standing commitment of GoI under the UN SDGs, has gained greater importance in the current pandemic and thus must be prioritised.

These three sections (5, 6 and 7) are organised into three sub sections, namely- Background, Evidences from the Ground, and Recommendations. While the "Background" sets the broad conceptual context for the theme being discussed, the "Evidences from the Ground" is based on the findings of study through Primary Research (KIIs) and Secondary Research (Press Scan Analysis, City profiles and available Literature). The final sub-section, "Recommendations", outlines the action points to be taken up by the Government (Centre, State and ULBs) primarily contributing to build resilient cities against future pandemics or disasters.

The report is accompanied by detailed set of annexure. The **Annexure 1** documents a detailed timeline of past pandemics/disasters and policy evolution during 6<sup>th</sup> Century to date. **Annexure 2** through **7** presents detailed literature reviews on themes of a) public spaces; b) housing and slums; c) water, sanitation and hygiene; d) legal framework for disaster management; e) public health including clinical

care and f) livelihoods and social protection. **Annexure 8** summarises the highlights of South Asian responses dealing with the ongoing COVID-19 pandemic. Finally the **Annexure 9** presents the list of key informants who were interviewed across the select cities.

## 2. Literature Review: A Historical Account of Pandemic Linked Urban Policy Evolution

Pandemics have a long history with a number of significant ones recorded as a result of the widespread human-to-human infection. Significant disease outbreaks and pandemics recorded in history, including plague also known as black death (1347-1353, Europe), Spanish flu (1918-1919, global), Asian flu (1957-61, global), Cholera (1961 ongoing, global), Hong Kong flu (1968-1969, global), HIV AIDS (1980 ongoing, global), Severe Acute Respiratory Syndrome / SARS (2002-2003, global), Swine flu (2009, global) and tuberculosis have purported enormous negative impacts on health, economy, society and security of national and global communities. In the 20th century, three influenza pandemics namely 'Spanish flu', 'Asian flu', and 'Hong Kong flu' caused immense harm to human life and economic development and were recorded as the most devastating in the world history (Qiu, Rutherford, Mao, & Chu, 2017). Even in this modern era, outbreaks are nearly constant, though not every outbreak reaches pandemic level as has been the case with COVID-19.

Diseases have always played a role in shaping cities (Klaus, 2020). Some of the most iconic developments in urban planning and management, such as the constitution of Metropolitan Board of Works in London and mid-19th century sanitation systems, were all a response to public health crises such as cholera outbreaks during the 1830s (Barra, 2000). Poor conditions of housing and environmental sanitation were main reasons for diseases such as typhus, cholera, yellow fever and tuberculosis to spread and these eventually laid the foundation for disease control through urban planning-related initiatives such as sewerage, garbage collection, rodent control and mosquito abatement (Duhl & Sanchez, 1999) as well as the promulgation of the Public Health Act of 1848, which served as a foundation for disease control in England and Wales (Fee & Brown, 2005). The Public Health Act of 1848 was one of the greatest milestones in the history of public health. For the first time, the state became a guarantor of standards of health and environmental quality providing resources to local units of government to make the necessary changes and to achieve the set standards (Brown, 2005). Further, Haussman model of renovation of Paris during the 19<sup>th</sup> century, focused on the removal of unsanitary conditions and city beautification with the central idea being dividing up functions (zoning) and establishing interconnectedness through a network of circulation routes. It also included urban planning related interventions such as demolition of medieval buildings, construction of sewers, aqueducts, etc. (Jagannath, 2019)

City planning has always been a reflection of the prevailing cultural and technological trends as well as crises. During the modern era, several pioneering town planners such as Ebenezer Howard, Patrick Geddes and Lewis Mumford were central in shaping and furthering the idea of social and health planning. Ebenezer Howard's concept of the garden city was developed during the last two decades of the nineteenth century and it proposed to solve, or at least lessen, the Victorian city's problems by exporting a good proportion of people and jobs to self-contained new towns in open countryside to decongest the core of the cities (Duhl & Sanchez, 1999). In the early 1900s, Patrick Geddes offered his vision of the regional city to address the challenges of the congested large metropolis. Around 1920 Lewis Mumford sustained Geddes's work, largely through the creation of the Regional Planning Association of America (Duhl & Sanchez, 1999). Moreover, since the 1980s the transformation of human disease patterns and the development of preventive medicine had aroused the attention on the influence of 'Urban Space' in the public health discourse (Li, 2017).



Historically, concerns around urban congestion, especially in informal settlements, were tackled through slum upgradation and provision of social affordable housing. Housing regulations around light and ventilation were introduced at the beginning of the 20th century as a measure against respiratory diseases in overcrowded slums of Europe during industrialization (Klaus, 2020). The first official recognition of these trends was embodied in the Housing and Town Planning Act of 1909 which compelled local authorities in the United Kingdom to introduce coherent systems of town planning using the principles of the 'garden city', and ensure that all housing construction conformed to specific building standards (Booth & Huxley, 2012). During 1920 after the outbreak of Spanish flu, a new emphasis on cleanliness in design was exemplified by early modernists such as Le Corbusier, who prioritized bringing sunlight and ample air circulation into buildings. Corbusier's concepts for urban housing – large high-rises with ample balconies set within a park-like landscape – greatly influenced the design of public housing for a generation (Cole, 2020).

Undoubtedly, progress in the field of medicine has contributed to decrease in mortality from diseases, improvements in survival rates in low-income and middle-income countries (LMICs) and increasing longevity of people living with the Non-Communicable Diseases (NCDs) such as diabetes, heart disease, respiratory illness etc. Further, public health interventions, such as improvements in water and sanitation infrastructure have also contributed substantially to the decrease in infectious disease mortality, and regulation has had a major effect on environmental quality in specific locations (Forsyth, 2020).

Regardless of where a pandemic starts, the urban poor and vulnerable communities tend to bear the brunt especially in the LMICs due to weak health systems and limited capacity to handle surges in cases (Qiu, Rutherford, Mao, & Chu, 2017). Distributional inequalities are likely to play out within poor countries and in the poorer pockets of such geographies as the poor have access to fewer resources for pandemic response, including fewer health workers and health care services (Khilji, Rudge, Drake, & Chavez, 2013). Crises like Ebola (2014-15) and Zika (2015-16) have further demonstrated that dramatic inequities and pockets of severe neglect in public health standards adversely impact the poor. Such pandemic related burdens fall most acutely on the poor and adversely impact their life expectancy and other socio-economic-health parameters (Szyp, 2020). A detailed account of pandemics and its impact on urban policy evolution is placed at **Annexure 1** and an abridged version of the time line is placed below.

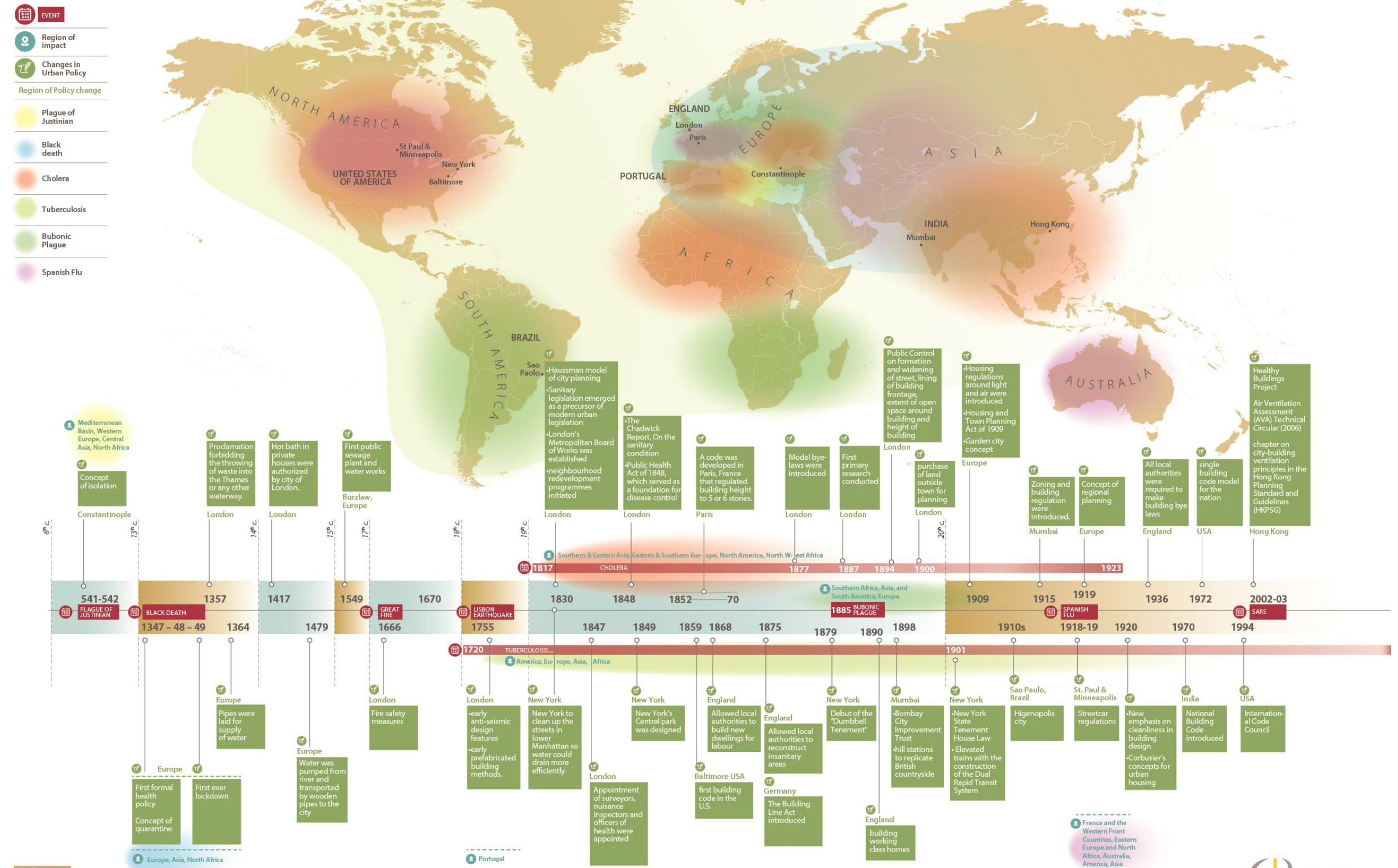
### **Pandemic and Public spaces (parks, public transport, public institutions etc.)**

The definition and concept of 'public space' has been continuously evolving. While historically, it mostly meant streets, squares and parks, it is now defined to include transport hubs, shared spaces in community centres, schools, hospitals, religious institutions, as well as privately owned public spaces such as shopping centres, theatres, entertainment hubs etc. (Mahadevia, 2015). While public spaces are important for society's mental, physical, and economic well-being, the spread of infections through public spaces, is undoubtedly a huge concern during the present pandemic.

Health crisis has always played a role in shaping the cities and their public spaces (Klaus, 2020). For instance, during the outbreak of Cholera in mid-19<sup>th</sup> century, London adopted the Haussman model of city planning, focusing on city beautification with wide boulevards and avenues, new parks and squares (Jagannath, 2019). Similarly, Central Park, New York was designed, in the immediate aftermath of the



- EVENT
- Region of impact
- Changes in Urban Policy
- Region of Policy change
- Plague of Justinian
- Black death
- Cholera
- Tuberculosis
- Bubonic Plague
- Spanish Flu



second cholera outbreak in the 1800s (Avalos, 2020). The architect of the park, Frederick Law Olmsted, called his vision for the space to be "the lungs of the city," a place to breathe easier at a time when cholera and other diseases ran rampant as people lived in very close quarters that were overcrowded and unhygienic. Subsequently, Olmsted designed more than 100 public parks and recreation grounds, including those in Boston, Buffalo, Chicago and Detroit after the cholera outbreak (Klein, 2020).

Public spaces like markets have always been the main gathering space for buyers and sellers and form an essential part of the cities' economic activities. However, some markets such as the wet markets where fruits, vegetables, meat and seafood are sold have been found to be at the origins of earlier epidemics/pandemics caused by zoonotic viruses. For example, the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 was traced to a wet market in the southern Guangdong Province of China. (Webster, 2004) In 2012, the H5N1 avian influenza (bird flu) epidemic was also traced to poultry infected by migrating water fowl in Hong Kong's markets. Further, both HIV and Ebola made the jump to humans from endangered primates as a reported consequence of bush-meat trade in Africa (Nalapat, 2020). Moreover, though contested, there is reason to believe that many initial cases of COVID-19 in Wuhan were linked to the Huanan Wholesale Seafood Market as many initial patients were either stall owners, market employees, or regular visitors to this market (WHO, 2020).

Similarly, in case of India, instances of wholesale markets like the Koyambedu market in Chennai and Azadpur and Ghazipur *mandi* in Delhi becoming COVID-19 hotspots had been observed (Pandey, 2020). These markets being a common point for farmers, labourers, wholesalers, traders and many others, make it nearly impossible for authorities to enforce the usual COVID-19 protocol (Pandey, 2020). Moreover, a few instances emerged where religious gatherings emerged as hotspots (Pradhan & Trivedi, 2020) which led to increasing in COVID-19 cases not only in Delhi but also in other states across India (Dutta P. K., 2020).

While India imposed a draconian lockdown in late March 2020 as a strategy to curb the pandemic, this wasn't the first time that a lockdown was imposed in the world's history. The measures taken to alleviate the effects of the bubonic plague that hit Europe in the 14th century can be termed as the first-ever attempt at a lockdown by a government or those in power (News18, 2020). However, this was the first ever lockdown imposed by India. The unpreparedness of the government in managing the lockdown impacted public transport, businesses (including factories and manufacturing units dealing in "non-essential" products) which in turn resulted in lots of people losing their jobs and a means of livelihood (Tanwar, 2020). Initially, due to the lockdown, all public transportation services and commercial/manufacturing establishments came to a halt, however, even after unlock services limped back to normalcy only gradually and people were avoiding crowded places as a precaution against the COVID-19 outbreak, which had a drastic impact on the Indian economy which went into a slump (Tanwar, 2020).

COVID-19 disrupted the livelihoods of millions of informal traders and nation's ubiquitous street vendors, who sell everything from snacks and cups of tea to toys and shoes at traffic lights, on pavements or from carts, across India. (Majithia, 2020). Similar impacts have been observed in other South Asian countries such as Bangladesh, Nepal and Myanmar where lockdown was imposed as a strategy to check the spread of infection, resulting in huge economic losses. The Bangladesh government shifted food markets to the nearest open

grounds as a measure to contain the spread as well as maintain the supply of essential items (TBS Report, 2020). Myanmar, implemented strict travel restrictions on international and domestic travel and most flights, trains, and inter-city long-haul buses services were suspended. In addition, people were reminded to practice social distancing in public spaces through IEC materials that were put up in public spaces and through Public Address systems. Recognising the need to build awareness on COVID-19, means of transmission and preventive measures, Government of India launched an online awareness campaign through creative and engaging digital media content (Ministry of Information & Broadcasting, 2020). A detailed literature review highlighting impact of the ongoing pandemic on access to public spaces is placed at **Annexure 2**.

### **Pandemics and Housing for Urban Poor in Slums and informal settlements**

While pandemics in the past have influenced how the linkages between built environment and diseases is perceived even though they may not have led to an immediate policy influence. Overall, the role of disease in development of housing related policies is noteworthy. Various acts and legislations passed in Europe, United States of America and many other places, which explicitly aim to improve housing are linked to the aim of reducing mortality and improving public health. The link between poverty, poor living conditions and high mortality in slum areas of the world's large cities, like London and New York was well established (Engels, 1885). Respiratory diseases like Tuberculosis, which killed thousands of people during the 19<sup>th</sup> and 20<sup>th</sup> century all over the world, was linked to extremely deprived work settings, poorly ventilated and overcrowded housing, primitive sanitation, malnutrition, and other risk factors (Frith, 2014). The Royal Committee of Housing for London, constituted in 1885, advocated that the high mortality rate in these areas can be addressed by improving housing conditions. Similar policy changes were introduced elsewhere in big cities like New York, Paris, and Berlin (Hall, 2014). The current emphasis on housing and the COVID-19 pandemic has once again spotlighted the direct linkage between public health and the built environment, especially for the urban poor and low-income settlements.

While housing shortage, overcrowding, small dwelling units and lack of basic services and amenities (such as water and sanitation) have made the residents of informal and low-income settlements more vulnerable to the risk of COVID-19 infection, the strict lockdown clamped by the Government of India has resulted in joblessness which has impacted the poor and homeless urban migrants. The challenges faced by residents of slums and informal settlements have exacerbated across South Asian countries like Bangladesh, Nepal, Myanmar and India due to COVID-19. The demand for rental properties in Bangladesh saw a surge during the lockdown period as households chose smaller and more affordable homes for rent amid the COVID-19 outbreak to make ends meet (TBS Report, 2020). Similarly, in Myanmar, as incomes decreased, slum dwellers faced difficulties paying their residential rental prices. In India as well similar challenges were faced by migrant workers with millions moving back to their villages due to loss of livelihood (APU, 2020) and their inability to pay rents (Jan Sahas, 2020). Considering the unequal burden on the poor impressed by COVID-19, various initiatives have been adopted by countries in the South Asian region. The Government of Myanmar provided cash assistance for low-income families and provided exemptions from electricity tariffs for all households. The Government of Nepal implemented various measures including rent waiver and prohibition from eviction, discount on electricity bills, moratorium on loan repayment, and extension of deadline for payment of bills (Himalayan News Service, 2020). The Government of India gave a strong push to existing Pradhan Mantri Awas Yojana (PMAY) by announcing



living facilities for migrant labour/urban poor at affordable rent through affordable rental housing and a moratorium on a mortgage payment for a period of six months (Ministry of Housing & Urban Affairs, 2020). Moreover, while initiatives taken by most of city and state governments in India have been limited to providing immediate relief to homeless through provision of emergency shelters and camps, the experiences of the few state governments that have already been implementing slum upgradation programmes as an approach to ensure adequate housing, water and sanitation services require wider replication given that the vulnerabilities of these settlements has only increased due to COVID-19 (Express News Service, 2020). A detailed literature review highlighting the challenges arising on account of overcrowded settlements and deprivations related to housing and basic services that gets exacerbated by the pandemics is placed at **Annexure 3**.

### **Pandemic and Water, Sanitation and Hygiene for Urban Poor**

The conditions in new industrial towns in the nineteenth century were deplorable. Basic services, such as adequate housing and safety, were non-existent. Under such conditions, diseases such as typhus, cholera, yellow fever and tuberculosis flourished, creating severe losses in both human and economic terms. This served as the foundation for disease control through urban planning-related initiatives such as sewerage, garbage collection, rodent control and mosquito abatement (Duhl & Sanchez, 1999). Increased understanding of the role of pathogens in the disease and the role of water in their transmission led to extensive investments towards improving water supply and sewerage treatment. During the first half of the 20th century along with the railroad, the advancements in water and sewage systems found their way to Indian cities as a response to the bubonic plague of 1896 (McFarlane, 2009).

The proliferation of slums in urban areas due to uncontrolled urbanisation across South Asian countries like Bangladesh, Nepal, Myanmar and India, has made them more vulnerable to disasters. Slums, characterised by poor living standards, dilapidated housing structure, lack of awareness about personal hygiene and safety, limited or no access to basic infrastructures suffer the most. In India, despite the recognition of the importance of basic services to the urban poor as an important agenda in various policies and urban planning regulations, right to basic services remains a distant dream for a large section of the urban poor, especially those living in city slums. Given the current pandemic, where social distancing, safe sanitation, and hand washing are essential measures to avoid further spread, these pockets of informal settlements in the city suffer from lack of basic amenities, inadequate arrangement for drainage, and solid waste disposal and garbage.

As a response to the ongoing pandemic, UN-Habitat supported Myanmar to construct a water treatment plant which could provide nearly 8,000 people with access to reliable and safe drinking water. Nepal installed contactless hand washing facilities primarily in quarantine centres (WaterAid, 2020) and distributed hygiene kits, water filters, dustbins, buckets with lids, soap, surface disinfectants and sanitizers. In India, advisories and Standard Operating Procedures (SoPs) were issued by various ministries such as Ministry of Housing and Urban Affairs (MoHUA), Central Pollution Control Board (CPCB), Ministry of Health & Family Welfare (MoHFW), etc. Further, the Ministry of Health and Family Welfare issued a separate advisory for "non-notified" informal settlements. Some private and public organisations working on the ground also issued practical and operational guidelines and created posters, reports, and publications as IEC (Down To Earth, 2020). A detailed literature review documenting the

criticality of access to WASH to mitigate the impact of the ongoing pandemic is placed at **Annexure 4**.

### **Pandemics and Public Health including Clinical Care**

Owing to quick transmission, high rate of infection, explosive spread communicable diseases have a higher chance of becoming epidemics and/or pandemics. The most vulnerable are the urban poor communities who tend to bear the brunt, in the low- and middle-income countries (LMICs) due to weak health systems and limited capacity – fewer health workers and clinics and less medicine to handle surges in case (Qiu, Rutherford, Mao, & Chu, 2017) .

It is empirically evidenced that pandemics are mostly severe or fatal diseases (e.g., the Black Death, HIV/AIDS, Plague, Cholera, Ebola virus and SARS) and necessitates safe public health interventions including increasing awareness about modes of transmission and prevention, use of protective gear, treatment and vaccination. Based on the experiences during the Ebola virus outbreak, several countries including Democratic Republic of the Congo, Liberia and Sierra Leone developed national public health emergency preparedness and response plans (WHO, 2021). The Ebola virus epidemic helped identify the following key elements of response from a public health perspective – effective case management, robust public health surveillance system, public health emergency plans and standard operational procedures, community engagement, social mobilization, and communication strategy (WHO, 2021). Initially recognized as a global threat in mid-March 2003, SARS was successfully contained in less than 4 months in several countries including China, Hong Kong, Singapore, Taiwan, and Vietnam, largely due to an unprecedented level of international collaboration and cooperation of the Global Outbreak Alert and Response Network (GOARN) and its constituent partners which comprised of 115 national health services, academic institutions, technical institutions, and individuals (Mackenzie, et al., 2004). The management of the global SARS response involved intense daily coordination in the areas of etiology and laboratory diagnosis, surveillance and epidemiology, clinical issues, animal sources, and field operations (Mackenzie, et al., 2004).

The WHO Contingency Fund for Emergencies (CFE) was established by the donor countries in 2015 after Ebola crisis to allow WHO to quickly release funds for emergency response (WHO, 2021). The CFE provides WHO with resources to respond rapidly to disease outbreaks and health emergencies, often within 24 hours which drastically reduces the costs of controlling outbreaks and emergencies, as well as wider social and economic impacts (WHO, 2021). The CFE also allows WHO the flexibility to scale up operations in response to an escalation in a health emergency and provide funding to ensure the continuity of critical, life-saving operations in the absence of other donor funding (WHO, 2021).

Evaluating the past pandemics and consequential responses, efforts have been mostly around developing public health emergency preparedness or response plans and strategies. There have not been many legislative and policy related responses on Public health. However, the Public Health Act of 1848 which legislated on the sanitary conditions of England and Wales was one of the great milestones in public health history (WHO, 2005). It was the first time, the state became the guarantor of standards of health and environmental quality and provided resources to local units of government to make the necessary changes to achieve those standards (WHO, 2005). The Public Health Act established a General Board of Health empowered to create local boards of health in the areas of high mortality and poor sanitary

conditions (WHO, 2005). These local boards of health could appoint a medical officer of health and be the authority to deal with water supplies, sewerage, removal of garbage, rodent control, mosquito abatement and other sanitary matters (WHO, 2005). These public health responses have a multi sectoral bearing on the overarching issues of water supply, sanitation, hygiene, housing and slums.

The ongoing COVID-19 pandemic has overwhelmed public health systems globally and especially in low-income countries where they are most fragile. It has further underscored the bearing that chronic neglect of public healthcare system has on a country's ability to safeguard its residents, particularly in face of a public health emergency of this magnitude. In India, public health care systems which are characterized by limited infrastructure, resources and personnel struggled to effectively control the spread, and to provide appropriate and timely healthcare to the affected (Oxfam India, 2021). This is further manifested by low allocation of GDP to the sector; India has the world's fourth-lowest health budget in terms of its share of government expenditure where people pay about 58.7 per cent of their total health expenditure out of pocket and only 50 per cent of the population have access to even the most basic healthcare services (National Health Accounts Estimates for India, 2018). COVID-19 crisis also brought to light the importance of public healthcare workers for adequate response large number of healthcare positions lying vacant in India (Amar Patnaik, 2020).

In Bangladesh, the short supply of trained public healthcare workers and personal protective equipment (PPE) and inadequate clinical treatment capacity affected all key aspects of the response—from screening at points-of-entry (POEs) to testing, follow-up, treatment, and care. In Bangladesh, the government worked with private sector investors and manufacturers to augment hospital's capacity as well as manufacturing capacity for PPE, ventilators, and testing kits. Nepal, designated the central hospitals, provincial hospitals, medical colleges, academic institutions and hub-hospitals to provide treatment care for COVID-19 cases. Myanmar government managed surge capacity by constructing makeshift hospitals, quarantine centres, and clinics; and procuring ventilators and securing funding for ICU units. The select South Asian countries have derived authority and autonomy to respond to public health emergency by invoking disaster and epidemiological legislations, as may be the case. A detailed review of legislations invoked in Bangladesh, India, Myanmar and Nepal is placed at **Annexure 5**.

A detailed literature review on the centrality of public health and clinical care measures during the pandemics is placed at **Annexure 6**.

### **Livelihoods and Social Protection to the urban poor during COVID-19**

While pandemics have a direct impact on the economy there are limited discernible links between past pandemics and socio-economic policy response by governments. For instance, lessons learned from SARS and Ebola suggest that income poverty is an important factor in disease transmission (Fallah, Skrip, Gertler, Yamin, & Galvani, 2015). Moreover, women accounted for nearly 55 per cent of Ebola cases in Nigeria owing to increased exposure, both occupationally and domestically due to their care-giving roles (Fawole, et al. 2016). In Sierra Leone, school enrolment rates for teenage girls fell from 50 per cent to 34 per cent after the Ebola epidemic (United Nations 2020). Analysis of the impact of Ebola crisis on the microfinance sector in Sierra Leone reveals that many microfinance clients made delayed loan repayments (The Guardian 2019).

Social and economic responses that safeguard both formal and informal workers have strong linkages with post-war situations and financial crisis. It was only after World War II that labour rights focused on individual rights, the right to collective action, and the right to monetary support in case of employment-related risks were perceived as “social security” (Leisering 2021). The financial crisis of 1990s and 2008 have shown that the welfare state serves an important role in providing insurance and thus in cushioning the effects of the crisis for individuals. In early by the 1990s, the social protection programs have been executed by many countries to cope with the economic crisis. After the Asian crisis of 1997, Indonesia developed a database of potential beneficiaries of an unconditional income transfer program to provide support to the vulnerable group (Lal and Soares 2012). Between 2008 and 2010, a broad range of interventions, including liquidity and credit-enhancing measures were allowed to cushion the recession. In 2009, after the Greek debt crisis, the European governments were forced to bail out systemic banks. The financial crisis was redefined as a crisis of fiscal profligacy, requiring tough and prolonged public austerity. Troubled countries such as Greece, Ireland, Portugal and Spain started pushing through austerity and reform, including labour market deregulation, cuts in civil servant salaries, pension benefit freezes, retirement age rises, and retrenchments in social transfers and services (Torben M. Anderson et.al, 2012).

Pandemic related vulnerability, through the lens of the social and economic determinants of public health, influences daily resilience and exacerbates the impact of a health disaster on urban poor and vulnerable (Sullivan & Bourgoin, 2010). For the urban poor, long-term poverty risks can be exacerbated through a vicious cycle of disease, destitution and death, whereby poverty contributes to disease transmission, and contagion fuels poverty (Diwakar, 2020). Such pandemics have pushed informal workers to the fringes forcing them to suffer from both health and economic mortality (Diwakar, 2020).

The pandemic has decimated jobs and placed millions of livelihoods at risk, primarily workers in the informal economy and in poorly protected and low-paid jobs, including youth, older workers, women and migrants. Out of a total of 122 million who lost their jobs in India, 75% (92 million) jobs were lost in the informal sector (Oxfam India, 2021). Furthermore, the pandemic was estimated to have pushed an additional 88 million to 115 million people into extreme poverty across the globe in 2020, with the total expected to rise to 150 million by 2021, depending on the severity of the economic contraction (World Bank Group, 2020). Around 55 million domestic workers in India, were at significant risk of losing their jobs and incomes due to the lockdown and lack of social security coverage, of these 37 million (67 percent) were women. (ILO, 2020). The COVID-19 crisis has laid bare pre-existing gaps in social protection provisions with the availability and accessibility of these programmes differing markedly across countries.

India saw a mass exodus of the “invisible workforce” from urban areas back to their rural homes which laid bare a glaring shortcoming of the government’s ability to provide social protection to the urban poor. The issues that came to the fore due to COVID-19 and associated lockdowns were primarily around drop in wages, lack of social protection and insurance for informal workers (including street vendors and migrant workers), increase in gender inequality in employment, increase in child labour, lack of social protection cover for frontline healthcare workers, irregular access to food and acute pressure on existing social protection schemes. In Bangladesh, 63.5 million informal workers have been significantly affected by the crisis and are at considerable risk of suffering losses to their livelihoods (ILO, 2020). Even extreme

poverty is expected to increase from 20 million to 28 million people as a result of COVID-19 (IFPRI, 2020). In Nepal, over 0.6 million citizens lost jobs since the outbreak of COVID-19 pandemic. Income losses in Myanmar have majorly been due to international shocks particularly losses in remittances, tourism, ready-made garments export industry and trade revenues as well as economic contractions in a wide range of sectors due to lockdowns and physical distancing measures.

COVID-19 has underpinned the need for adoption of safeguard mechanisms like social protection programs specially targeted towards the poor and vulnerable. As a response, Government of India announced the Pradhan Mantri Garib Kalyan Yojana (PMGKY), INR1.70 trillion relief package to provide support to poor and vulnerable people (PIB, 2020). The PM Street Vendor's Atma Nirbhar Nidhi (PM SVANidhi) was also launched for providing affordable working capital loan to street vendors to enable them to resume their livelihoods (PIB, 2020). In addition to national announcements, state governments also introduced additional measures for migrant workers, construction workers, below poverty line (BPL) individuals and low-income households. For example, the Odisha government announced the Urban Wage Employment Initiative (UWEI) which enabled generation of employment for the returnee migrants, the urban poor and their organisations along with building community assets in slums. (Citizen Matters, 2020)

In Bangladesh, the government announced stimulus packages worth 4.4% of the GDP for economic revival, including stimulus package and widening of social safety net coverage (IMF, 2020). It also expanded the social assistance system to provide additional coverage to vulnerable groups, increasing coverage from 15 million to 39.8 million people, alongside providing food assistance to the vulnerable and jobless people during the lockdown (IMF, 2020). Similarly, Myanmar through its social protection system helped large sections of the vulnerable population through one-time universal cash transfer to the families affected and to the Small and Medium Enterprise firms during the lockdown reaching close to 20 million people (Brancati, Minoletti, Win, Hein, & Riambau, 2020). Likewise, Nepal announced a relief package (including food items and soap) ensuring universal coverage of informal workers and deprived people with no caregivers. In India, the Ministry of Micro, Small and Medium Enterprises released the Emergency Credit Line Guarantee Scheme (ECLGS) Modification in Operational Guidelines, 2020 (Ministry of Micro, Small and Medium Enterprises, 2020). Under the scheme, upper ceiling of loan was increased from INR 25 crores to INR 50 crores. Additionally, Guidelines for Credit Guarantee Scheme for Subordinate Debt (CGSSD) for Stressed/ non-performing assets (NPA) MSMEs in 2020 (Ministry of Micro, Small and Medium Enterprises, 2020) which aims to provide personal loan through banks to promoters of stressed businesses. Further, the Ministry of Micro, Small and Medium Enterprises also released a COVID-19 Standard Operating Procedure (SOP) for MSMEs at workplace to ensure continuity of businesses while at the same time preventing transmission of COVID-19 amongst the employees and workers of MSMEs. The SoP focused on regular disinfection of workplaces, provision of transport facility, hand washing arrangements, thermal screening, promotion of maintaining social distancing, and wearing of masks. Simultaneously, MSMEs were encouraged for providing medical insurance to their employees (Ministry of Micro, Small and Medium Enterprises, 2020). A detailed literature review highlighting the impact of pandemic on livelihoods and social protection with specific focus on the vulnerable is placed at **Annexure 7**.

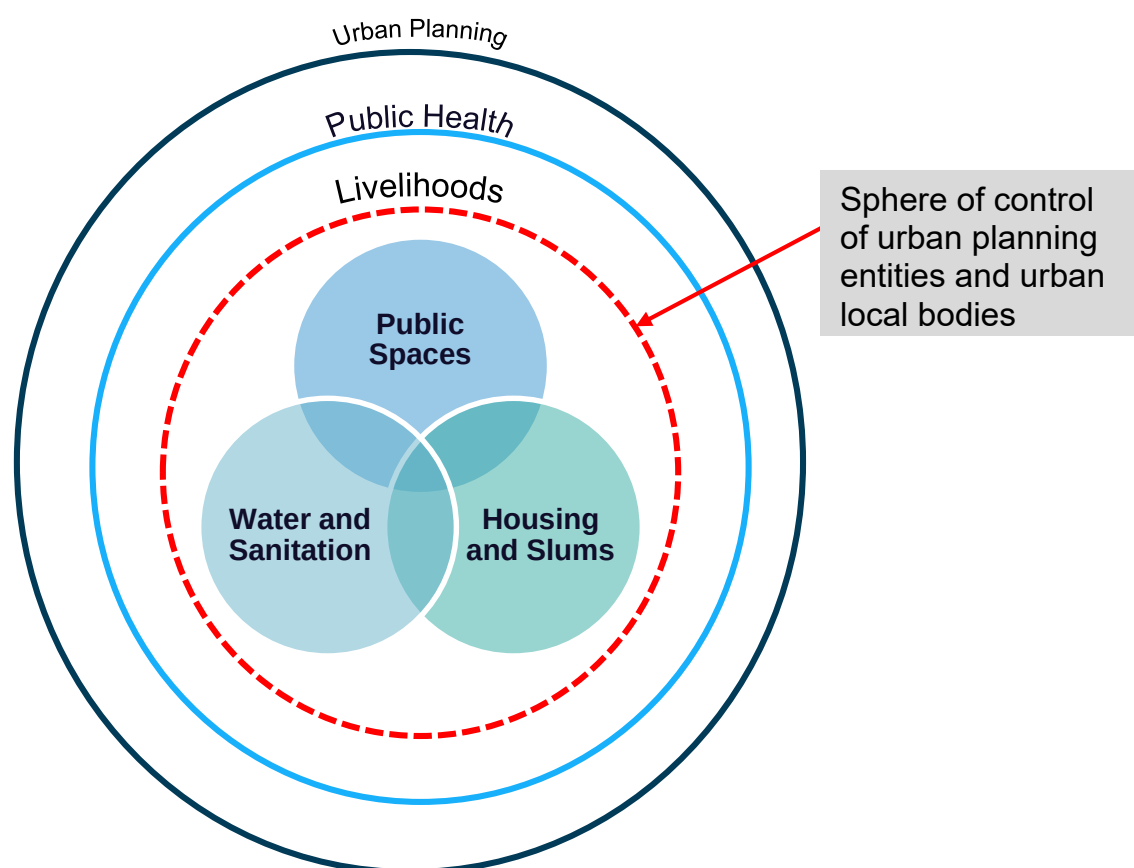


### 3. The Conceptual Framework and Methodology

#### 3.1 Conceptual framework

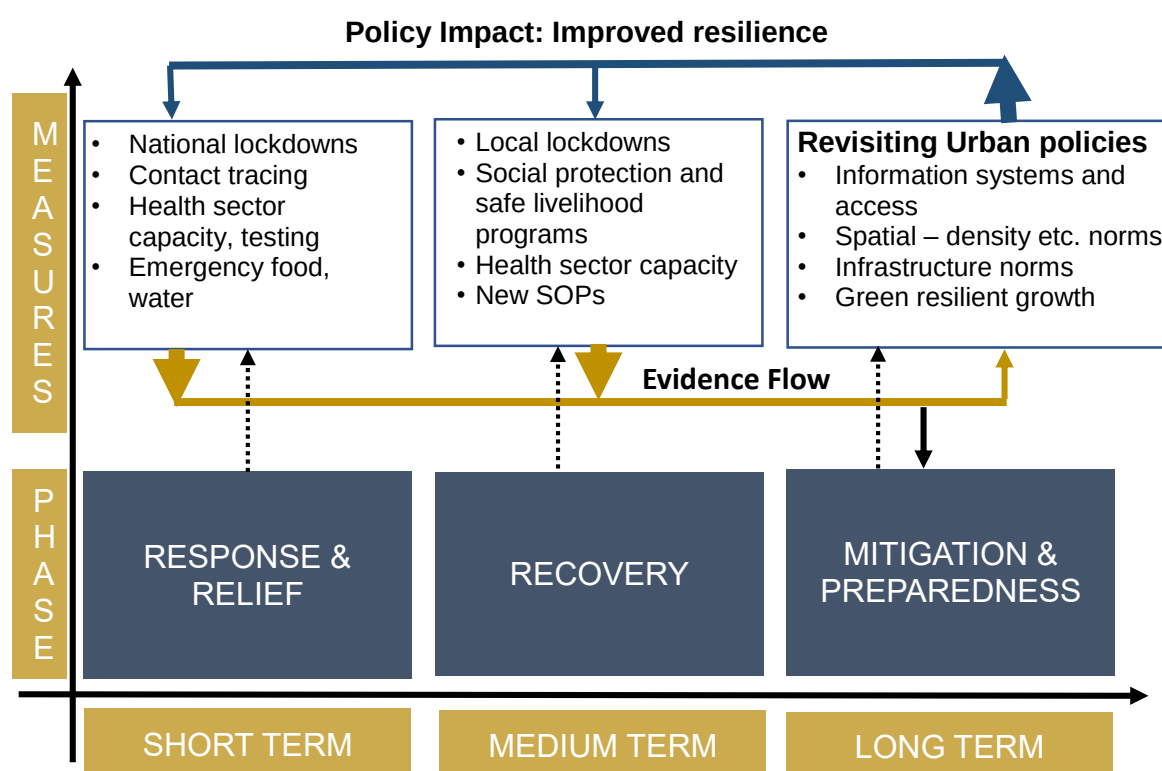
The study aimed to assess the intersection between urban policy, planning and pandemics and adopted an inter-disciplinary conceptual framework and methodology. Based on the literature review and in reference to the terms of reference for the study – the intersection between urban planning and pandemics is set out into five main themes. These are a) Public spaces; b) Housing and slums; c) Water, Sanitation, and Hygiene; d) Public health including clinical care and e) Livelihoods and social protection. The impact of COVID 19 on the above-mentioned themes in the urban sphere has been analysed at the Global, South Asia, and specifically at the India level during the last year. While currently, the authorities of most urban local governments in India are focusing their interventions mainly in sectors like housing and slums; water and sanitation and on maintaining public spaces, the subjects of urban planning, public health including clinical care, livelihoods and social protection of urban workers remain inadequately addressed which have been highlighted during COVID 19. Therefore, this study has attempted to link them to the conception of urban planning, which points to future directions by highlighting the limitations of the current institutional arrangements around urban planning in India. The ontological categories and relationships in this study are presented in Figure 1: **Ontological Categories of this Study** below.

**Figure 1: Ontological Categories of this Study**



The second aspect of the conceptual framework focuses on laying out the relationship between the traditional disaster response i.e., a) immediate response actions and relief; b) recovery supporting actions and c) mitigation and future preparedness actions in conjunction to the measures taken during the ongoing pandemic. Unlike conventional disaster responses, the relief and recovery measures remains concurrently intertwined under the diverse and ever transforming COVID-19 context. The current study draws on learnings from the evidences from the ongoing relief and recovery phases which remains heavily focussed on short term immediate concerns. These evidences are further triangulated through discussions with sector experts and secondary resources focusing on longer term sustainability issues that would inform better preparedness and mitigation policies. This flow has been indicated by the yellow arrows in the Figure 2: **Framework for research and synthesis**. The blue arrows, on the other hand, explains that if such informed urban policies are put in place then in case of future pandemics, immediate response, relief, and recovery supporting actions would be better informed to minimise upheaval in people's lives. A graphical diagram to depict this information-action nexus is presented in figure 2 below.

**Figure 2: Framework for research and synthesis**

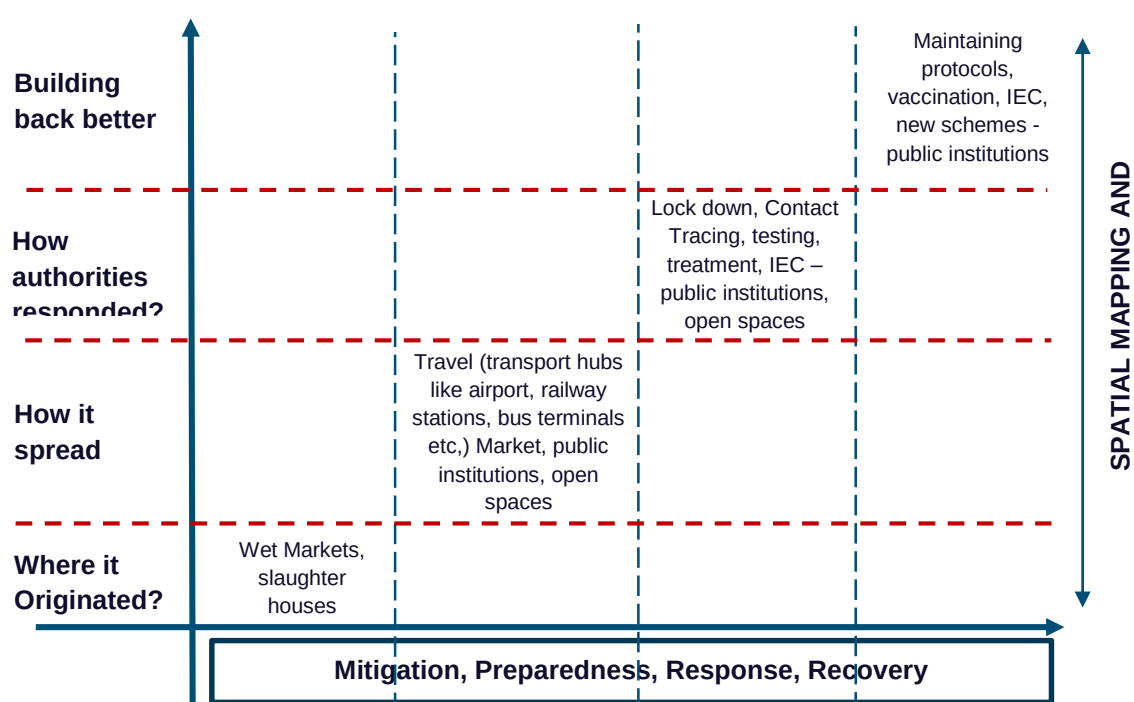


To understand the relation between each theme and the pandemic, it has been divided into four broad stages. The stages are represented along the Y Axis and are indicated as key questions of a) what were the underlying issues or what was the origin? b) how did the challenge escalate? c) how and which entities responded to these challenges? and d) what does this experience tell us about building back better for embedding enhanced resilience in both forms and processes. The X Axis, on the other hand, represents four phases of disaster management, as mentioned above, indicating the need to have specific plans for each sector

across phases. Thereafter the issues corresponding to each theme have been mapped along the four stages to understand the context better.

A visual representation of the framework for the theme public spaces is presented below in Figure 3 as an example. The public spaces were mapped along the four stages indicated in y-axis to understand where and how these have acted as vectors, or also evolved in use in some cases. For example, the origin of COVID-19, though remains to be conclusively confirmed, and other zoonotic diseases in the 21<sup>st</sup> century had been linked to the wet markets. Similarly, while the virus spread through transportation hubs, markets, etc., were locked down as part of a containment strategy the same public spaces were put into other usage e.g. as quarantine centres, testing labs, treatment centres etc. Based on this framework and understanding of the public spaces in the context of the ongoing pandemic, recommendations were curated.

**Figure 3: Analytical Framework: Public Spaces**



Based on this conceptual framework, a methodology was developed to gather and triangulate data from secondary and primary sources also incorporating an innovative instrument to capture the perceptions of challenges and the government actions across global, South Asia, India and specific cities in India through a scan of press coverage on the specific themes during January to September 2020. Details of the methodology are part of the next section.

A group of Advisers from India, Bangladesh, Myanmar and Nepal provided guidance in developing the conceptual framework, methodology and supported the main research team to gather a deeper understanding of relevant policy issues in India and South Asia on public spaces; housing and slums; water, sanitation and hygiene; public health including clinical care; and livelihoods and social protection.

### 3.2 Methods adopted in the Study

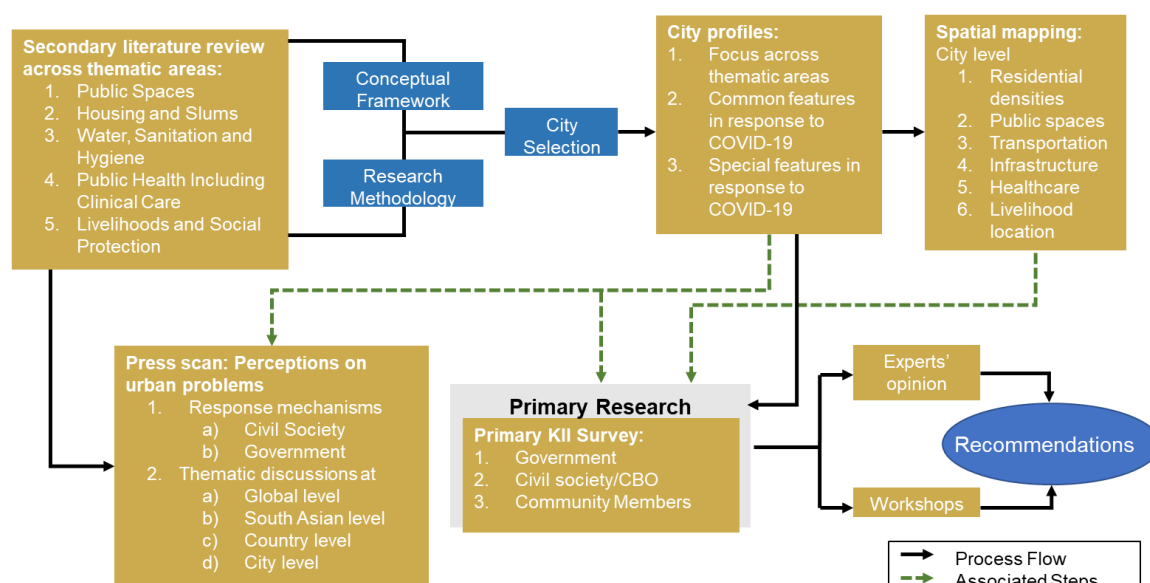
As a part of the methodology, mixed methods were adopted that relied on primary and secondary research techniques. As a first step, a literature review was undertaken across five themes in a historical perspective to understand how pandemics have shaped the form and processes across the themes of (1) public spaces; (2) housing and slums; (3) water, sanitation and hygiene; (4) public health including clinical care; and (5) livelihoods and social protection; in urban areas. This review built an understanding of the thematic areas at the global and South Asian levels, focusing on India, Bangladesh, Myanmar, and Nepal. A detailed country profile on key issues faced under COVID-19 in urban areas and government response of the four countries was developed as a next step.

A detailed press scan analysis was undertaken to capture the perceptions and key issues being discussed in multiple geographies through media reporting on COVID-19 at the global and South Asian levels, focusing on all four countries. This innovative exercise was feasible due to the digitization of news platforms and new emerging tools for automated and systematised analysis of data. This was used as a barometer for understanding public concern and government priority actions over the large spread of geographic categories covered by the study.

As the terms of reference were to develop specific recommendations for India's urban areas, the study shortlisted 11 cities in the country for undertaking city level primary qualitative data collection. For the shortlisted cities, city profiles and spatial infrastructure maps were developed based on secondary sources. The official websites of these cities, especially the ones developed for COVID-19 response, including the Twitter and Facebook handles, were reviewed as secondary sources. These emerged as important secondary sources given the increased use of social media platforms by governments to put out information on actions being taken and the COVID-19 pandemic status in their jurisdictions.

Based on the literature review, the issues identified in the press scan and the specific city profiles a primary data collection tool based on Key Informant Interview (KIIs) was developed for 11 cities in India across various stakeholders in each city. The KIIs aimed to provide insights into vulnerabilities from the bottom-up and specific government and civil society organisations' response.

Through triangulation of secondary research with primary qualitative data, the study generated specific evidence on how national, provincial, and local governments have adapted existing policies, programmes, and institutional structures to address urban vulnerability issues through urban planning. Based on the systematisation and analysis of the evidence and workshops with experts – actionable recommendations were drawn up on how governments in developing countries can be advised on reshaping urban policies after the outbreak of COVID-19 in an ethical, inclusive, equitable, and resilient manner.

**Figure 4: Research Methodology and Structure**

### 3.3 Details of city selection, press scan and research tools

#### 3.1.1. Secondary literature review across thematic areas

The literature review was undertaken on five identified themes to explore the history of pandemics and its effect on urban policies at a Global and South Asian level to understand the epidemiological, transmission, health system capability context. The literature review focused on the evolution of modern planning policies and their linkages to past and present pandemics in developing countries, with a focus on India, Bangladesh, Myanmar, and Nepal. It explored the current urban governance structures and key policies, programmes and standards, and norms for food security, health, planning, housing, and transport, and social infrastructure in the four focus countries. It also reviewed various Acts and legislations pertinent to the response to COVID-19.

The literature review examined relief and recovery measures undertaken by South Asian countries, focusing on India, Bangladesh, Myanmar, and Nepal to understand the challenges faced and solutions undertaken in dealing with the outbreak of COVID-19. The literature review included reviewing peer-reviewed articles, opinion pieces, and routine periodic and thematic reports.

#### 3.1.2. Country profiles of four South Asian countries

Country profiles of India, Nepal, Bangladesh, and Myanmar were developed to undertake cross country comparisons on response to COVID-19. These profiles covered demographic data of the country. It also covered existing national level housing, livelihood, water and sanitation schemes or other critical policies for the urban poor. It highlighted the country's response (short, medium, and long term) to the pandemic. It dealt with issues related to surveillance and monitoring systems in public space, highlighted special arrangements and coping mechanisms and local practices and social security schemes that worked.

### 3.1.3. City Selection for primary data collection

Eleven urban locations were identified for administering KIIs. These sites were selected, factoring in the following considerations - zonal representation of India, representation of the city's different size (large, medium, small), the density of the city, and diverse nature of economic activities in selected sites. Selected cities were a mix of Smart cities with better control and coordination mechanisms and small towns with low population density. Some of these cities were known for tourism and heritage, some cities were known for industries, mining, IT sector, and other services. These cities were spread across the country to ensure diverse narratives were captured through KIIs. The presence of networks and groups of CSOs (CPR's partners) and CPR staff in the selected cities was a critical factor in city selection. Considering the pandemic was ongoing when the KIIs were to be administered, CPR leveraged its partners' strong presence in six sites (including Pune, Bangalore, Ajmer, Muzzafarpur, Jhansi, Malerkotla) to administer KIIs. The remaining five sites, including Delhi, Bhubaneswar, Dhenkanal, Bhilai, and Lingasugur, were selected as CPR researchers were based there. Details of selected cities are given below (Table 1).

**Table 1: Selected cities for administering KIIs**

| Region (5) | Cities (5)            | Towns (6)                                |
|------------|-----------------------|------------------------------------------|
| North      | Delhi                 | Malerkotla (Sangrur District, Punjab)    |
|            |                       | Jhansi (Uttar Pradesh)                   |
| South      | Bangalore (Karnataka) | Lingasugur (Raichur district, Karnataka) |
| West       | Pune (Maharashtra)    | Ajmer (Rajasthan)                        |
| East       | Bhubaneswar (Odisha)  | Dhenkanal (Odisha), Muzzafarpur (Bihar)  |
| Central    | Bhilai (Chhattisgarh) |                                          |

### 3.1.4. City Profiles and Spatial mapping of selected sites

City-level profiles were developed for all eleven Indian cities selected for administering KIIs. These city profiles covered demographic data, institutional structure for COVID-19 related response by the government and civil society organisations. In addition to city profiles, spatial analysis of all selected cities was undertaken to ascertain -(1) density, (2) public spaces/institutions (parks and playground, religious institution, educational institution, health facilities, markets, and commercial spaces), and (3) public infrastructure (airport, metro, railway station, bus stop, national highway). For each selected city, the parameters mentioned above were spatially represented with a view that spatial analysis of big cities and small cities would help assess the need for preparedness for public infrastructure to deal with the COVID-19 crisis.

### 3.1.5. Press scan

The press scan was undertaken to capture a period of nine months (between January to September 2020) to understand issues that received media attention as well as those that were disregarded. Press scan analysis also aimed to explore the contrast and similarities between news coverage in India vis-à-vis globally.



Under Press Scan, five International media sources covered COVID-19 related global news focusing on all five thematic areas - public spaces; housing and slums; water, sanitation and hygiene; public health including clinical care; and livelihoods and social protection. Additionally, the press scan covered news from nine South Asian countries. Furthermore, six National mainlines and four vernacular media sources covered news from India, Bangladesh, Nepal, and Myanmar. 6.66 M sources globally, 7.96 M sources at the South Asian level and 6.3 M sources in India were covered under the press scan.

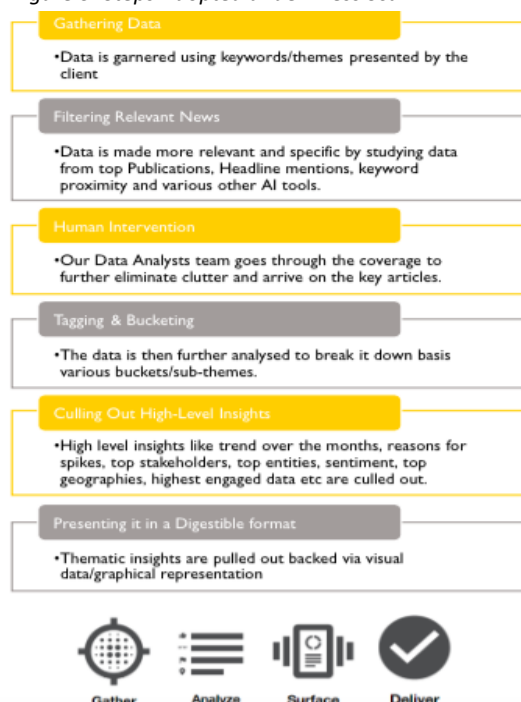
Keywords were developed to explore sub-themes. These were further nuanced by adding regional and vernacular words by the press scan agency. The press scan analysis explored issues and actions taken by the government and civil society in response to the pandemic under each theme. This study identified prominent issues based on the volume of news coverage and actions around them.

### 3.1.6. Key Informant Interviews

Based on the preliminary literature review, the key informant interview schedule was developed for all themes. First, a detailed list of questions was developed on various sub-themes to ensure thematic focus. These questions were further filtered, strengthened, and fine-tuned based on city profiles. As a next step, a city-wise stakeholder list was prepared. Some of the key informants included government officials from Urban Local Bodies like Municipal Commissioner, Public Health Officer, Chief Medical Officer, elected representatives, front line workers [like Accredited Social Health Activist (ASHA), Anganwadi workers (AWWs), Auxiliary nurse midwife (ANM), sanitation workers]. A list of urban poor and representatives from civil society organisations (CSOs) including non-government organisation (NGO), community-based organisation (CBO), auto-rickshaw association, slum dwellers association, street vendor, domestic worker, home-based worker, traders was drawn. After that, stakeholder wise KII schedules were developed that had questions from all themes for each city. These KII schedules were also translated into vernacular language.

Primary data collection through KIIs aimed to capture nuances on issues and concerns the urban poor faced in slums and informal settlements after the outbreak of COVID-19. It also covered relief and recovery response measures by the state and non-government actors in addressing the economic, social, and health-related vulnerabilities. On average, thirteen interviews were rapidly administered in each city in a month (December 2020 to January 2021). This report is based on 162 KIIs across cities in India. Before

Figure 5: Steps Adopted under Press Scan



administering KIIs, field investigators were oriented on Ethics and safety protocols. Informed consent of the key informant was also taken before conducting the interview.

#### **3.1.7. Workshops and expert opinions**

Findings from both primary and secondary data analysis were discussed with advisors and experts through two formal workshops and several direct interactions. They have fed into a set of recommendations on urban planning policies geared towards achieving greater resilience.

#### **3.4 Limitation of the study**

The rapid nature of the study and the short time frame posed some limitations. The study relied on KIIs (a qualitative research technique) for primary data and could have been strengthened with a primary household survey and by the inclusion of more cities. Other than this, the field challenges encountered included scheduling interviews with government officials as they were hard-pressed owing to the ever transforming context of COVID-19. Key limitation around this study include risks around less conventional methods and the ability to address concerns around sampling and ethical biases.

## 4. Outline of Impacts due to COVID-19

This section aims to conduct a comparative analysis of the four countries in South Asia - Myanmar, Nepal, Bangladesh and India identified for the study and outlines the impact of COVID -19 in these countries. The first sub-section lays down the broad urban frame of the four countries followed by summarising the COVID-19 induced impact on major macro-economic parameters of GDP, food security, industrial outputs among others. The following sub-section documents the specific impact of the ongoing pandemic on India's progress to achieve SDG 11, Sustainable and Inclusive cities which is impacted by other SDG goals and indicators. The final sub-section indicates the findings from the press scan conducted during January to September 2020 and presents the media coverage about the specific themes identified-public space, housing and slum, water sanitation, public health (including clinical health), livelihoods and social protection.

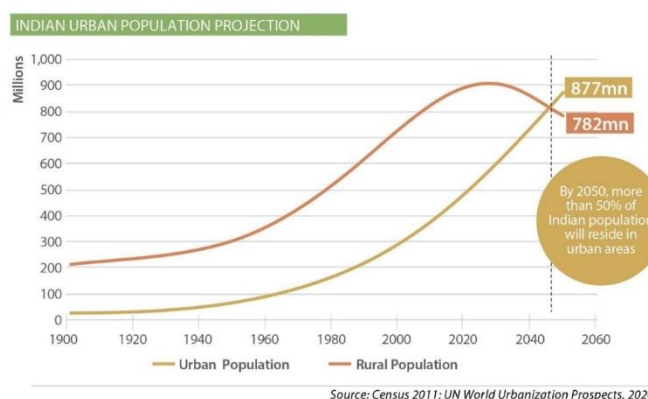
### 4.1. URBANISATION FRAME: Bangladesh, India, Myanmar and Nepal

Evidence reveals that rapid demographic growth, migration and density, increased movement of people and animals, and changes in land uses are some of the main processes linked to the prevalence of zoonosis in the urban global South (Hassell, 2017) (Ahmed S, 2019). According to the UN's World Urbanization Prospects, 2018, it is projected to account that the urban population will account for 68 per cent of the total population by 2050, wherein Bangladesh, India, Myanmar and Nepal will comprise about 15 per cent of the total urban population. Therefore, the increasing trends of urbanisation have also paved the way for an increased probability in the emergence and spread of zoonotic diseases, thereby manifesting a major threat to the world's urban population.

An assessment of the impact of the COVID-19 pandemic and potential future pandemics across the five themes necessitates a demographic analysis of the urban frame of the four selected South Asian countries. This not only includes the projected urban population of these countries, but also their urban population characteristics including slum population, sex ratio, unemployment rate, literacy level and poverty ratio. In addition, the number (and size) of the urban centres of these countries and rate of migration is also documented to showcase the increasing pressure on urban areas vis-à-vis the demand for employment opportunities, housing and basic services. This exercise enables an identification of the most vulnerable groups and regions during a public health emergency/disaster, and can further facilitate a focused dissemination of relief resources and measures.

### 1. Urban Population Projections for South Asia (SA)

|                                                  | India            | Bangladesh       | Myanmar         | Nepal           |
|--------------------------------------------------|------------------|------------------|-----------------|-----------------|
| Total Population in 2020                         | 1.3 Billion      | 168 Million      | 54 Million      | 29 Million      |
| Urban Population in 2020                         | 35%, 483 Million | 38%, 65 Million  | 31%, 17 Million | 21%, 6 Million  |
| Projected Proportion of Urban Population by 2050 | 53%, 877 Million | 58%, 118 Million | 47%, 29 Million | 37%, 13 Million |



## 2. Urban Characteristics of SA

|                                                        | India                                           | Bangladesh                                                              | Myanmar                                                           | Nepal                                                       |
|--------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------|
| A. SLUM POPULATION<br>(% of urban population),<br>2014 | 24%<br>(UN-Habitat World Cities<br>Report 2016) | 55%<br>(UN-Habitat World Cities<br>Report 2016)                         | 41%<br>(UN-Habitat World Cities<br>Report 2016)                   | 54%<br>(UN-Habitat World Cities<br>Report 2016)             |
| B. URBAN GENDER<br>RATIO                               | 111 males/1000<br>females<br>(MHA, 2011)        | 109 males/1000<br>females<br>(Bangladesh Bureau of<br>Statistics, 2014) | 91.6 males/1000<br>females<br>(Department of<br>Population, 2014) | 104 males/1000<br>females<br>(Government of Nepal,<br>2014) |
| C. URBAN<br>UNEMPLOYMENT RATE                          | 8.4%<br>(Kumar, 2020)                           | 4.9% of the total<br>labour force<br>(CEIC, 2017)                       | 4.8%<br>(Department of<br>Population, 2014)                       | 11.6%<br>(Government of Nepal,<br>2017-18)                  |
| D. URBAN LITERACY<br>LEVEL                             | 84.98%<br>(Census, 2011)                        | 65.6%<br>(Bangladesh Bureau of<br>Statistics, 2013)                     | 95.2%<br>(Department of<br>Population, 2014)                      | 82.5%<br>(Government of Nepal,<br>2014)                     |
| E. URBAN POVERTY<br>RATIO                              | 13.7%<br>(PTI, 2013)                            | 18.9%<br>(World Bank, 2017)                                             | 11.3%<br>(World Bank, 2017)                                       | 7%<br>(Nepal Planning<br>Commission, 2018)                  |

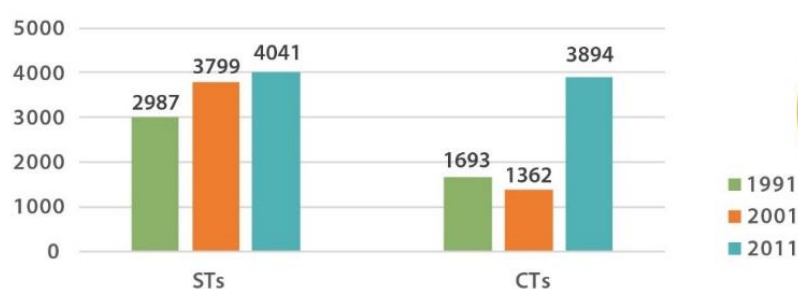
## 3. Migration Trends in SA

| India                                                                                                                                 | Bangladesh                                                                                                                                                                                  | Myanmar                                                                                          | Nepal                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>45%</b><br>(~60 Million) of the<br>total urban<br>workforce (~133<br>Million) comprises<br>of migrant workers<br><br>(Census 2011) | <b>5.3%</b><br>of total workforce<br>comprises of rural<br>to urban migrants<br>(decadal rate for<br>2001-2011)<br>(Hossain, Riad and<br>Ahmed, 2016)<br>(Hossain, Riad and<br>Ahmed, 2016) | <b>10%</b><br>of total workforce<br>comprises of rural<br>to urban migrants<br><br>(Census 2014) | <b>25.5%</b><br>of total workforce<br>comprises of rural<br>to urban migrants<br><br>(Tiwari, 2008) |

## 4. Number of Urban Centres

| India                                                                                                                                                                             | Bangladesh                                                                                                            | Myanmar                                                         | Nepal                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| • <b>46</b> Cities<br>(population > 1<br>Million)<br>• <b>459</b> Class 1 cities<br>(population<br>>100,000)<br>• <b>7428</b> Cities<br>(Population<br><100,000)<br>(Census 2011) | • <b>42</b> Cities<br>(more than 100,000)<br>• <b>490</b> Towns<br>(less than 100,000<br>population)<br>(Census 2011) | • <b>33</b><br>Cities<br>• <b>238</b><br>Towns<br>(Census 2014) | • <b>6</b> Metropolis<br>• <b>11</b><br>Sub-metropolis<br>• <b>276</b><br>Municipal Councils<br>(Open Data Nepal,<br>2018) |

### GROWTH OF STATUTORY TOWNS AND CENSUS TOWNS IN INDIA



The growth of small towns and cities has significantly contributed to India's urbanisation

Source: Census 2011

## 4.2 COVID 19 INDUCED MACRO IMPACT: Bangladesh, Myanmar and Nepal

The pandemic has widened the inequality gap in most of the countries across the world including the select countries of SA. Several studies pointed out that the impact has been significant on the socio-economic conditions of the chosen countries of Bangladesh, Myanmar and Nepal at a macro level. Such sharp impacts have the potential to impede the stride towards attaining SDG target 11.5 of “significantly reducing the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations by 2030”.

|                                                                                                                                 | BANGLADESH                                                                                                                                                                                                                                                                                                              | MYANMAR                                                                                                                                                                                                                                                         | NEPAL                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TOTAL NUMBER OF COVID-19 CASES                                                                                                  | <b>5,47,930</b><br><small>(Worldometers.info, accessed 4th March, 2021)</small>                                                                                                                                                                                                                                         | <b>141,984</b><br><small>(Worldometers.info, accessed 4th March, 2021)</small>                                                                                                                                                                                  | <b>274,381</b><br><small>(Worldometers.info, accessed 4th March, 2021)</small>                                                                                                                                                                                                                               |
| TOTAL NUMBER OF DEATHS DUE TO COVID-19                                                                                          | <b>8,428</b><br><small>(Worldometers.info, accessed 4th March, 2021)</small>                                                                                                                                                                                                                                            | <b>3,199</b><br><small>(Worldometers.info, accessed 4th March, 2021)</small>                                                                                                                                                                                    | <b>2,778</b><br><small>(Worldometers.info, accessed 4th March, 2021)</small>                                                                                                                                                                                                                                 |
|  <b>FOOD INSECURITY</b>                      | <p>At least <b>13 MILLION</b> extra people have fallen below the poverty line due to COVID-19. A recent survey asserts that 75% of the sampled respondents reported not having enough food, while 91% reported of not having enough money to purchase food</p> <small>(Mottaleb, Mainuddin, &amp; Sonobe, 2020)</small> | <p><b>1/4<sup>TH</sup></b> survey respondents worried about food quantities and quality, and around 10% reported instances of going hungry. Around 20% mention food supply problems (referring to food availability).</p> <small>(Headey, et al., 2020)</small> | <p><b>34%</b> of parents cited ‘food’ among the top three needs of their children; 1/5 families still struggle to feed their children.</p> <small>(Nepali Times Editorial, 2020)</small>                                                                                                                     |
|  <b>GDP GROWTH RATE DURING 2020</b>          | <p>Expected to be <b>5.2%</b> during 2020 and 6.8% during 2021</p> <small>(ADB, 2020)</small>                                                                                                                                                                                                                           | <p>Expected to be <b>1.8%</b> in 2020 and 6.0 % in 2021.</p> <small>(ADB, 2020)</small>                                                                                                                                                                         | <p>GDP growth in Nepal is estimated at <b>1.8%</b> in FY2020.</p> <small>(World Bank, 2020)</small>                                                                                                                                                                                                          |
|  <b>COVID-19 INDUCED INCREASE IN POVERTY</b> | <p><b>40.9%</b> poverty rate which was double from that prior to the onset of the pandemic</p> <small>SANEM, 2020)</small>                                                                                                                                                                                              | <p><b>62%</b> poverty from 16% in January, 2020</p> <small>(Headey, et al., 2020)</small>                                                                                                                                                                       | <p><b>&gt;50%</b> Nepali households at risk of falling back into poverty because of loss of jobs and income during 2020 due to the pandemic. 42% of households have no earnings at all; 19% have a combined monthly family income of less than INR 10,000.</p> <small>(Nepali Times Editorial, 2020)</small> |





**NO OF CHILDREN WHO DROPPED OUT OF SCHOOL DUE TO COVID-19**

## BANGLADESH

**>45%**

of secondary-level students in the country will not return to schools, if they reopen after the COVID-19 shutdown ends (Mamun, 2020); 42 million students in Bangladesh affected cannot access online classes

(Montu, 2020)

## MYANMAR

**9.7 MILLION**

learners in basic education sector will be directly impacted from closure of schools due to COVID-19

(Myanmar Ministry of Education, 2020)

## NEPAL

**ONLY 25%**

students used distance learning platforms to continue learning during school closures.

(Gough, 2020)



**REDUCTION IN MANUFACTURING ACTIVITIES**

**>82%**

reduction in export earnings: Export earnings in March, 2020 44.14 billion taka USD 520 million; export earnings in March, 2019: 256.66 billion taka (USD 3.03 billion)

(Export Promotion Bureau of Bangladesh (EPB), in Ahmed, 2020)

**83%**

firms experienced a reduction in sales, 51% firms experienced cash flow shortages and 29% firms experienced a reduction in access to credit which meant reduction in manufacturing activities

(World Bank, 2020)

**49%**

capacity utilisation rate, down from 75-80% in 10 industrial estates in Nepal

(SAWTEE, 2020)



**INTERNATIONAL FINANCIAL ASSISTANCE UNDER COVID-19**

**World Bank  
\$100 MILLION**

(World Bank, 2020)

**IMF  
US\$ 732 MILLION**

(IMF, 2020)

**World Bank**

(World Bank, 2020):

1. Myanmar COVID-19 Emergency Response Project: **US\$50 MILLION**
2. **US\$8 MILLION** grant from the World Bank Group's Global Pandemic Emergency Financing Facility
3. Maternal and Child Cash Transfer Project: 6 months of cash payment, totalling **MMK 90,000**
4. Contingent Emergency Response Component (CERC) of the **US\$480 MILLION**

**IMF**

1. **US\$ 356.5 MILLION** (IMF, 2020)
2. **US\$ 350 MILLION** (IMF, 2021)

**World Bank  
\$200 MILLION**

(World Bank, 2020)

**IMF  
\$214 MILLION**

(IMF, 2020)



### 4.3 COVID-19 INDUCED MACRO IMPACT: India

Despite India's exponential economic growth over the past years, the several inequalities have remained. The ongoing pandemic, not only heightened the fault lines of economic inequities, but also exacerbated the existing inequalities. To ensure a meaningful comparative analysis of other countries with India, the following macro-economic factors are compared which may significantly impede India's stride to achieve the SDG target 11.5, as indicated above.



(Worldometer, 2021. As on Feb 1, 2021.)



#### 131 CLAIMS

under Pradhan Mantri Garib Kalyan Package (insurance cover of Rs. 50 lakh to health-care providers, including community health workers)

(Press Trust of India, 2020)



It is predicted that the closure of family planning services will result in

#### 2.95 MILLION

unintended pregnancies are predicted to result from family planning services as well as

**844,483 LIVE BIRTHS,**

**1.80 MILLION ABORTIONS**  
(including 1.04 MILLION unsafe abortions) and **2,165 MATERNAL DEATHS**

(Berkhout, et al., 2021)



#### 1,461 ACCIDENTS

at least, over the course of the nationwide lockdown - from March 25 to May 31 - in which at least

**750 PEOPLE** were killed, including **198 MIGRANT WORKERS**

(SaveLIFE Foundation)



FOOD INSECURITY:

#### 50%

respondents had no rations left even for a single day in April, 2020 while **96%** had not received rations, **70%** had not received cooked food from the government; and **78%** less than INR 300 left

(Berkhout, et al., 2021)



#### GDP GROWTH RATE DURING 2020:



(Express Web Des, 2020; Kumar, 2020)



COVID INDUCED INCREASE IN POVERTY:

#### More than 12 MILLION

people will be pushed to poverty in India

(Mahler, Lakner, Aguilar, & Wu, 2020)



NO OF CHILDREN WHO DROPPED OUT OF SCHOOL DUE TO COVID:

#### Over 32 CRORES

students affected by the closure of educational institutions till the end of October; **84%** in rural areas and **70%** attend government schools.

(Berkhout, et al., 2021)



#### USD 31 BILLION

Reduction in manufacturing activities due to lockdown/- COVID (estimated)

(ET Bureau, 2020)



INTERNATIONAL FINANCIAL ASSISTANCE RECEIVED UNDER COVID:

#### USD 2.5 BILLION

worth of health, social protection and economic stimulus loans provided by WB

(Hindustan Times, 2020)

#### 4.4 COVID-19 INDUCED URBAN IMPACT: India

As the pandemic raged through Indian cities while the nationwide lockdown brought a majority of urban activities to a standstill, COVID-19 would entail a significant impact on the achievement of all SDGs. This section attempts to map the impact of the COVID-19 in India across three key segments – Public Spaces, Housing and Slums and Water, Sanitation and Hygiene – which significantly contribute towards the achievement of various SDGs and the creation of sustainable and inclusive cities.





## HOUSING AND SLUMS



RISK OF COVID CASES  
IN SLUMS/URBAN:

**1.89X HIGHER**

higher in urban slums  
(ICMR)

(ICMR, 2020)



GINI 2020:

**0.832** IN 2021

(World Population Review, 2021)  
from

**0.36** IN 2011

(The World Bank, 2018)



DOMESTIC VIOLENCE:

**13,410**

complaints, including  
domestic violence, between  
March 1 and September 18  
received by NCW (MWCD).  
Domestic violence complaints  
have increased by

**2.5 TIMES** since the  
nationwide lockdown began  
in India.

(Berkhout, et al., 2021)



## WATER, SANITATION AND HYGIENE



ONLY **6%**

of the **POOREST 20%** has  
access to non-shared sources  
of improved sanitation,  
compared to

**93.4%** of the top **20%**

(Das, 2020)



**2.5-4 KG**

biomedical waste per bed,  
daily (CBWMTF)  
from **500GMS** per day  
(2017)

(Das, 2020)

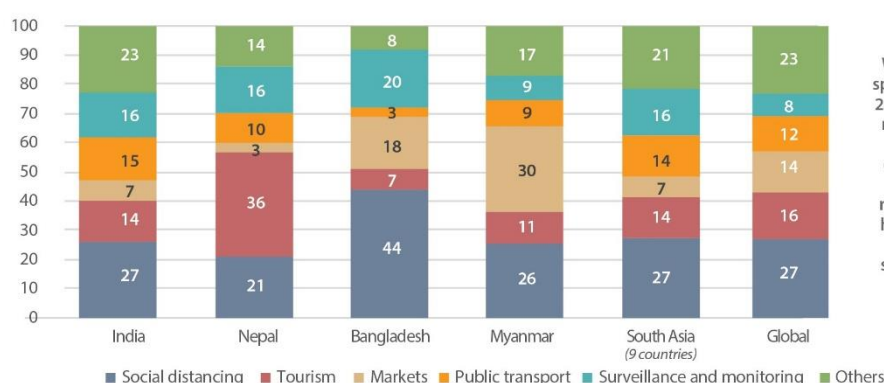
## 4.5 PERCEPTIONS OF URBAN CHALLENGES UNDER COVID-19 (Press Scan)

As a part of this study, a press scan was undertaken to understand the key issues that received media attention for a period of nine months (between January to September 2020) across the globe and in particular, across select four South Asian countries – India, Bangladesh, Myanmar and Nepal. This exercise aimed to explore the gamut of contrasts and similarities in COVID-19 related news coverage, thereby highlighting the particular issues which received significant media attention across the five themes (Public Spaces; Housing and Slums; Water, Sanitation and Hygiene; Public Health including Clinical Care; and Livelihoods and Social Protection).

The following section lists the key issues discussed in the media across the study regions as well as the five themes of this study. It also disaggregates the media coverage across the selected regions to highlight the proportion of media coverage received by various issues that have emerged under the ongoing pandemic.

### PUBLIC SPACES

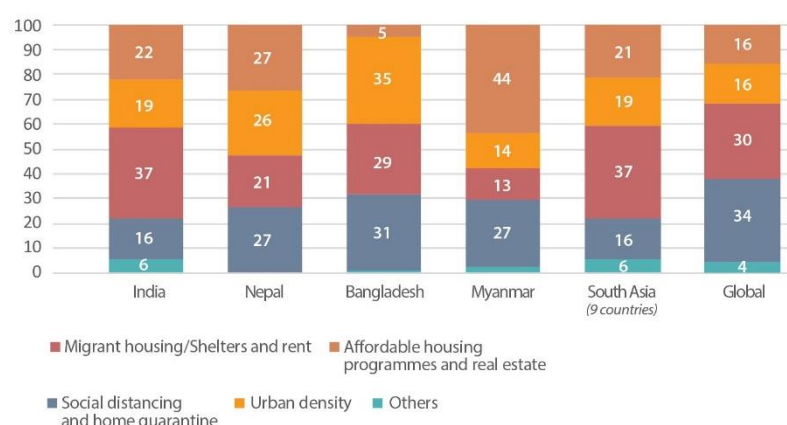
| India                                          | Nepal                      | Bangladesh                                     | Myanmar                             | South Asia                                     | Global                              |
|------------------------------------------------|----------------------------|------------------------------------------------|-------------------------------------|------------------------------------------------|-------------------------------------|
| Social distancing; surveillance and monitoring | Tourism; social distancing | Social distancing; surveillance and monitoring | Markets; social distancing; tourism | Social distancing, surveillance and monitoring | Social Distancing; Cycling; Tourism |



While discussing public space issues in the media, 27% of the global and SA news coverage focused on issues of social distancing followed by tourism and access to markets. In Bangladesh, however, 44% of media coverage was about social distancing, Nepal focused on tourism related news.

### HOUSING AND SLUMS

| India                                           | Nepal                         | Bangladesh                       | Myanmar                        | South Asia                     | Global                                       |
|-------------------------------------------------|-------------------------------|----------------------------------|--------------------------------|--------------------------------|----------------------------------------------|
| Housing and shelter for migrants; urban density | Affordable housing programmes | Urban density; social distancing | Real estate; social distancing | Migrant housing; urban density | Social Distancing; Rents and Migrant Housing |



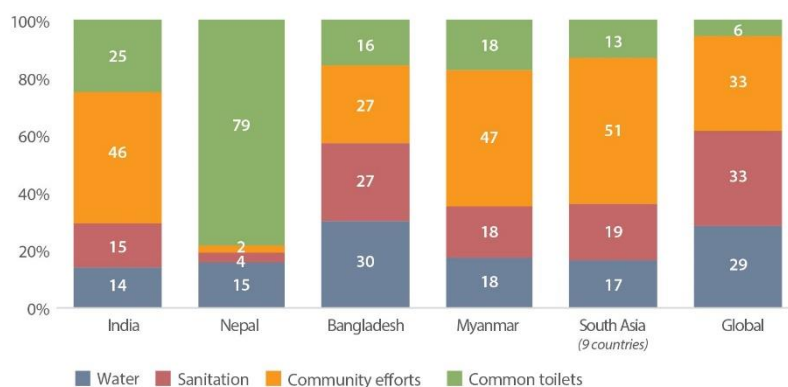
Globally, the issues of migrant housing/shelters, social distancing and home quarantine attained 64% of media attention while discussing housing and slums. In Myanmar, about 44% of media coverage focused on affordable housing programmes and the impact on real estate.





## WATER, SANITATION AND HYGIENE

| India                                                           | Nepal                   | Bangladesh              | Myanmar                                                 | South Asia                              | Global                        |
|-----------------------------------------------------------------|-------------------------|-------------------------|---------------------------------------------------------|-----------------------------------------|-------------------------------|
| Community efforts; Shared toilet facilities and access to clean | Issue of common toilets | Lack of access to water | Community efforts, common toilets, sanitation and water | Community efforts, sanitation and water | Sanitation; Community Efforts |

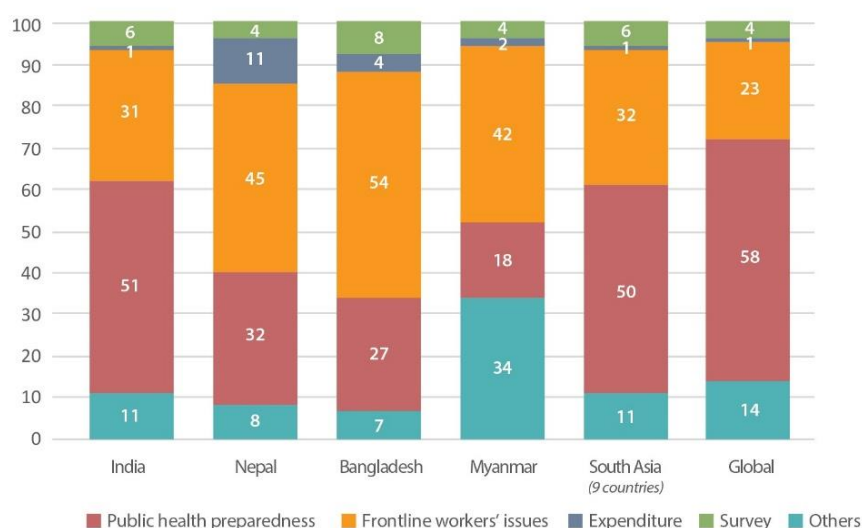


Water sanitation remained critical defence against the pandemic. While global media discussed WASH issues, it focussed on the sanitation challenges and community efforts to secure access; South Asian media reported about community efforts for securing water and sanitation in 51% of the cases. While the same dominated the coverage in case of India and Myanmar, water remained a major issue in Bangladesh and community toilets dominated the media coverage in Nepal.



## PUBLIC HEALTH INCLUDING CLINICAL CARE

| India                                         | Nepal                                         | Bangladesh        | Myanmar           | South Asia                                    | Global                     |
|-----------------------------------------------|-----------------------------------------------|-------------------|-------------------|-----------------------------------------------|----------------------------|
| Public health preparedness; frontline workers | Frontline workers, public health preparedness | Frontline workers | Frontline workers | Public health preparedness; frontline workers | Public Health Preparedness |

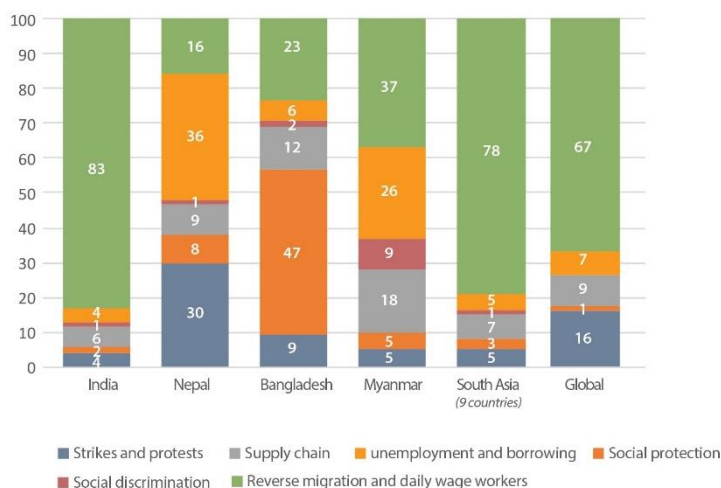


The issue of public health preparedness continued to be of prime importance during the pandemic across the globe as well as in South Asia. Another segment which received significant media attention across all the regions pertained to the issues of Frontline Workers, with close to 50% of media attention attributed to the same in Bangladesh and Nepal.



## LIVELIHOODS AND SOCIAL PROTECTION

| India                            | Nepal                                 | Bangladesh                                                   | Myanmar            | South Asia                       | Global             |
|----------------------------------|---------------------------------------|--------------------------------------------------------------|--------------------|----------------------------------|--------------------|
| Daily wage workers, supply chain | Strikes and protests; money borrowing | Social protection; food assistance and social discrimination | Daily wage workers | Daily wage workers; supply chain | Daily wage workers |



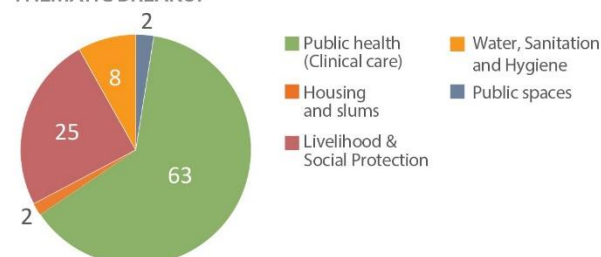
The pandemic not only adversely impacted the livelihoods across the world, but also highlighted the disparities in social protection mechanisms, especially in South Asia. Consequently, the unemployment and the reverse migration of migrants and daily wage workers received the highest media attention across the globe (67%) and in South Asia (78%). In Bangladesh, social protection and the lack thereof also received close to 50% of the media attention.

## THEMATIC ANALYSIS FOR INDIA

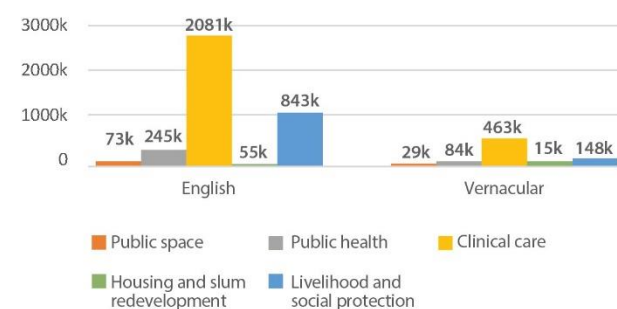
| Theme                                 | India     |
|---------------------------------------|-----------|
| Public Spaces                         | 1,01,857  |
| Housing and Slums                     | 69,343    |
| Water, Sanitation and Hygiene         | 3,29,359  |
| Public Health including Clinical Care | 25,43,689 |
| Livelihoods and Social Protection     | 9,91,690  |

Public Health (Clinical Care) mined the highest number of news coverages in India garnering a total of 63% followed by Livelihood & Social Protection which garnered 25% of the total coverage. Social distancing & Surveillance were prominent sub-themes under public spaces whereas "Public health preparedness" & "Frontline workers" were top sub-themes under Public Health (Clinical Care).

## THEMATIC BREAKUP



## COVERAGE SPLIT





## 5. Building Urban Resilience through Integrated Planning

A resilient city assesses, plans and acts to prepare for and respond to all hazards – sudden, slow, expected and unexpected. Urban resilience has gained greater prominence over the past decade in international development discourse and has emerged as one of the core principles of sustainable urban development. (UN-Habitat, 2017) Building urban resilience has gained even greater importance as the COVID-19 pandemic has brought to the fore the inadequacies related to the capacity of Indian urban centres to withstand the impact of this unprecedented public health emergency and respond adequately, focusing on vulnerable communities (Ghosh, 2020).

Urban resilience is being visualised here as a strategic approach that has planning – including spatial, social and economic planning as its cornerstones. Spatial mechanisms for building resilience include adjusting urban planning based on hazard/risk assessments, improving land use planning, strengthening and implementing building codes and regulations, etc. Economic planning pertains to ensuring that adequate budgetary provisions are made to strengthen and augment the existing public health infrastructure and human resources (across primary, secondary and tertiary health care systems), housing, water and sanitation, wastewater management and public transportation. There is a need to align all plans and interventions to build cities' resilience to the UN Sustainable Development Framework of "Leaving No One Behind". Such an approach will enable concerted action to address inequities, discrimination and reach the presently unserved, poor and marginalised communities and small and medium cities that have till now been largely left untouched by national infrastructure development programs.

### 5.1. Ensure provision of safe public transport services and infrastructure to support Non-Motorised Transport

Public transportation systems are the lifelines of any city/town. In Indian cities/towns, a large proportion of the population depends upon public transport for accessing their livelihoods and services (including but not limited to health and education).

COVID-19 struck a massive blow on public transportation services, including intra-city, intercity and interstate services. When the national government announced a lockdown on 24 March, 2020 all transportation services, including public transportation systems (such as buses and mass rapid transit systems like metros), came to a grinding halt. This led to many hardships for urban residents – the most significant impact was felt by the frontline workers (including health/community and sanitary workers) who had to continue to discharge their duties even during the lockdown as these were related to the provision of "essential" services. Migrant workers who found themselves without jobs and a place to live started leaving metro cities to go to their native towns or villages – due to the lack of any transportation facilities (such as trains, buses, etc.) they had to walk hundreds of kilometres.

Even when the lockdown was gradually removed, city authorities were reluctant to restart public transportation services due to the fear of the spread of COVID-19. Urban residents were also sceptical about using public transportation services due to the same reason. In most urban centres, bus services during the first unlock phase were operated on a limited capacity to avoid infection spread. The slow restart of public transport services coupled with the hesitancy on the part of the citizens had a significant impact on the livelihoods of private bus

operators and drivers of buses, and Intermediate Public Transport (IPT) means such as auto-rickshaws, cycle rickshaws, taxis, etc.

After the lockdown, walking and cycling emerged as two positive trends which urban residents adopted for travelling over short distances. This shift also prompted local government agencies to recognise the importance of creating infrastructure to support walking and cycling by constructing footpaths and providing cycling tracks/lanes.

### **Evidence from the ground (Primary and Secondary)**

As mentioned above, citizens faced numerous hardships during and post lockdown to access public transportation services. In Delhi and Pune, the public transport system's closure during the lockdown made it very difficult for frontline workers to reach their workplaces. In the absence of any transportation facility provided by government agencies, the frontline workers depended on private vehicles/IPT. They reported spending much more time and money commuting to and from work. In Bhubaneswar, on the other hand, a frontline sanitary worker shared that they were cycling to work even before the lockdown, and thus, there wasn't any change for them. They also reported that the police didn't harass them as the latter were aware that they were travelling to discharge their duties coming under the provision of essential services.

In Bhilai, when the lockdown restrictions were lifted, and public transportation services were gradually restarted, these operated at limited capacities. Further, the lack of trust in the public transportation system meant that most people preferred to use private means of transport. KIIs with construction workers and street vendors revealed that they used bicycles to commute to work even over long distances to remain safe. In Bhubaneswar, an interview with an NGO that works with construction workers revealed that these workers were commuting around 25 kilometers to reach the construction sites outside the city limits by trucks provided by the contractor. Before the lockdown, they were living on the construction site, which was no longer an option. The contractor did not want to ensure the practice of safety and hygiene protocols on the site. In Bhilai, the Disaster Management Officer shared that the contractors/factory owners were responsible for seeking permission from the District Collector's office if the labour being employed by them was coming from other states.

The lack of interstate transport facilities (including trains and buses) during the lockdown meant that the migrant workers who lost their jobs during the lockdown had to cycle/walk long distances. The Town Planner working with the Dhenkanal Regional Improvement Trust (DRIT) shared that the migrant crisis was grave, and the government response was managed by the District Administration and Road Transport Office (RTO). In the post lockdown phase, the Executive Officer, Dhenkanal Municipality, informed that arrangements were made to restart transportation facilities to other districts/states facilitating movement of its citizen, especially the migrant workers. Similar arrangements were made by other cities as well to enable mobility.

Private operators and drivers of buses and IPT were also impacted, both during and after the lockdown. During the lockdown, their business and their means of livelihood came to a stop due to public transport's stoppage. Since people avoided public transport in the post lockdown phase, their business was much lower than the pre lockdown times. These interruptions in their business caused them immense financial strain. Interactions with the bus driver's

association in Bhilai revealed that the association had approached the local elected representatives for financial aid. While they were given assurance, they never received any assistance. In Dhenkanal, as per the bus driver's association, their business suffered immensely during the lockdown. Even during the unlock phases, while services were restored, the ridership was only ~50 per cent. They were hopeful that in the next 2/3 months, the demand for bus services would be restored to pre-pandemic levels. They also shared that while they were strictly adhering to the COVID-19 safety protocols (such as making hand sanitiser available at the time of boarding and ensuring that all passengers wear masks), the demand was low. The same sentiment was shared in Malerkotla, where post lockdown passenger traffic for bus transport remained low. Thus, only 50 per cent of the regular fleet of buses were put in operation, and the Heating, Ventilation and Air conditioning (HVAC) Volvo bus service were put on a complete hold. In Malerkotla, the bus drivers employed by the Patiala and East Punjab State's Union (PEPSU) Road Transport Corporation (RTC) were paid only half their salary during the lockdown period. In Jhansi, the ridership was reported to have reduced significantly due to hesitancy among the citizens even though the private bus operators were strictly following COVID-19 safety protocols outlined by the district administration.

**Box 1: Nepal – Safe restart of public transport facilities**

In Nepal, the public transport was shut down during the lockdown period. The restrictions were partially lifted in July 2020 and the government decided to resume public transportation services due to immense pressure from businesses and citizens. However, the following measures were adopted to ensure that public transport services were safe:

- Passengers up to 50% of the seating capacity;
- Recording the temperature of all commuters; and
- Mandatory use of masks and gloves for transport staff.

Source: (The Katmandu Post, 2020)

Even in the crisis posed by the COVID-19 pandemic, some private transport service providers' innovations came to light. These initiatives aimed to make public/IPT services safer and build trust and confidence among citizens. Noteworthy is the interventions of the auto-rickshaw drivers' association in Bengaluru, which took the initiative of installing plastic sheets as a partition between the driver and riders to ensure adherence to social distancing norms. Also, they started accepting online payments instead of cash. In the small town of Muzaffarpur, globally recognised best practices for ensuring public transportation systems' safe operation were being practised. Like the metro system in Japan that encourages its riders to not speak with each other and always wear a mask, the bus driver's association in Muzaffarpur also instructed drivers and conductors to ensure that passengers do not speak with each other. Further, the buses were sanitised twice a day and drivers were given PPE kits while on duty. Besides, hand sanitising facilities were provided for all passengers before boarding.

The COVID-19 pandemic has also resulted in Development Authorities/Improvement Trusts' becoming cognizant about the need for planning and developing infrastructure to support walking and cycling. The officials from Ajmer Development Authority and Dhenkanal Regional Improvement Trust believed that adequate provisions need to be made for pedestrian and cycling infrastructure. In Jhansi, the district administration's nodal officer shared that realising

the need for pedestrian infrastructure, many cities were working towards constructing footpaths.

### Recommendations

Ensuring that public transportation systems are safe and have emergency protocols to address any public health emergency and augmentation of infrastructure to support IPT and NMT will facilitate livelihood recovery and help cities transition to more environmentally friendly modes of transport.

For public transport, cities must ensure that adequate transportation facilities are provided for frontline workers responsible for delivering essential services during any lockdowns imposed to control a public health emergency. Also, cities need to put in place mechanisms whereby all citizens, especially the urban poor communities, have access to transportation facilities in case of any medical emergency during a public health emergency like COVID-19.

To ensure safety, State transport departments should issue emergency safety and hygiene protocols for public transport to enable their operation even during a public health emergency. While implementing these guidelines would be the responsibility of the respective city governments/transport undertakings, the enforcement should be by the traffic police. Citizens must be made aware of the safety guidelines and protocols being adopted on public and IPTs through IEC to build trust and encourage usage.

A renewed effort must be made to improve last-mile connectivity of public transport by strengthening regulations and infrastructure around IPTs (autos, mini-buses and e-rickshaws) and ensuring high-quality pedestrian infrastructure (well-made pavements and street lighting).

Cities should create/revise Comprehensive Mobility Plans (CMPs) to provide or augment infrastructure for walking and cycling. In addition, city Master Plans should allocate adequate space for pavements and cycle tracks. The respective ULB must identify the land required to create the required infrastructure in close coordination with the Development Authority/Improvement Trust. Small towns, where government-operated public transport is not currently operational, and planning capacities and financial resources are inadequate, will require the state government's technical support and funding to prepare and implement these plans.

### **5.2. Adoption of strategic planning approach in small towns to promote resilient urban development**

Around 40 per cent of India's urban population resides in small towns (towns with a population of less than 0.1 million). These urban centres are characterised by haphazard and unplanned growth, non-conforming land uses, mushrooming unauthorised colonies, and land conversion from agriculture to urban use resulting in environmental degradation and low quality of life. Effective planning and management of small towns call for accurate and vital information to be available regularly (TCPO, 2016).

Local governments in small towns need to be equipped with tools and technologies that will enable them to collect and analyse spatial information/data about the areas under their jurisdiction and to use this information for planning and decision making. Such information becomes extremely crucial in emergencies like the COVID-19 pandemic, where the timeliness,

as well as the efficacy of the response, depends, to a large extent, on the knowledge of the existing ground realities, the ability to identify vulnerable areas and communities, and the ability to define buffer zones to contain the spread of disease.

The old-fashioned practice of static land-use based master plans being prepared by large cities in India has failed miserably. Under the current planning regime, master plans are mainly restricted to the zoning of areas as per different uses (including residential, commercial, industrial, agricultural, etc.). Also, there is a limited or no scope for designing networks, such as transport, water and energy, crucial for ensuring liveable cities. Even when master plans are comprehensive, these are not statutorily binding and are challenging to implement as the functions fall under multiple *parastatal* agencies' jurisdiction. In such a background, it becomes imperative to explore alternative approaches to urban planning. For smaller towns, dynamic approaches address the current social and economic realities and integrate the needs and aspirations of urban residents by leveraging the local governance structures envisaged under the 74<sup>th</sup> Constitutional Amendment Act, including Ward Committees and Area *Sabhas*. The alternative approaches must also provide opportunities for inter-sectoral coordination and linkages.

### **Evidence from the ground (Primary and Secondary)**

Government officials across small towns covered by this research believed that lack of spatial data and map limited local governments' capacity to effectively track and trace COVID-19 cases and define containment and buffer zones to control the disease's spread. They believed that since the exact location of vulnerable settlements/communities was unknown to the city and district authorities, the relief and response was during early months of pandemic.

Haphazard development and high densities in the older parts of small towns like Malerkotla and the absence of data and maps made it difficult to isolate COVID-19 cases and define containment and buffer zones to the Sub Divisional Magistrate (SDM), Malerkotla. In Lingasugur, the lack of coordination between the neighbouring development/town authorities (namely, Raichur Development Authority, Sindhanur Town Authority and Manvi Town Authority) has resulted in excessive delays in the initiation of the physical planning process. The initial information required for the preparation of Master Plans, that is, the base map and geocoded data, were thus not available – this was identified as a barrier for providing timely relief to vulnerable communities and undertaking surveillance.

On the contrary, metropolitan cities like Pune and Bengaluru were quick to convert the Integrated Command and Control Centres (ICCCs) created under the Smart City Mission (SCM) into "COVID-19 War Rooms". Using an integrated data dashboard, the ICCCs served as the nerve centre for the city's COVID-19 response. All COVID-19 positive cases were mapped using Geographical Information Systems (GIS), and this spatial data was used extensively for surveillance and for creating buffer zones. The ICCCs helped implement various other surveillance activities, including Closed Circuit Television (CCTV) surveillance of public places to ensure social distancing. The cities also used Global Positioning System (GPS) based tracking of healthcare workers, predictive analytics (heat maps) for virus containment, virtual training of doctors and healthcare professionals, real-time tracking of ambulances and disinfection services, and medical services through video conferencing, telecounselling and telemedicine.

While it is difficult to ascertain whether the response facilitated through the ICCCs was sufficient under the scope of the current research, the findings from these cities show that they were more aware of the ground realities than other cities/towns and the presence of the infrastructure facilitated quick mobilisation. However, the activities carried out through these war rooms remained limited to diseases surveillance and were unable to address welfare aspects such as providing relief to stranded migrant workers, providing food and ration to vulnerable and urban poor communities, etc.

## Recommendations

Against this background, it becomes critical to ensure that small towns adopt a strategic planning approach for urban development to make cities resilient to future shocks, including public health emergencies and natural disasters. Provisions should be made to ensure that local governments in small towns have access to tools and technologies that enable collection as well as analysis of spatial data to support decision making. Through adequate financial and technical support, small towns should be encouraged and assisted in developing digital geo-referenced maps using Geographical Information System (GIS). Learnings from Atal Mission for Rejuvenation and Urban Transformation's (AMRUT) sub-scheme "Formulation of GIS based Master/development Plans" (Box 2) must be used to devise a program targeting small towns. The central government should fully fund the initiative. It should enable investments towards strengthening institutional structures, capacity building and enabling vertical and horizontal coordination to manage urban growth and response in the face of public health emergencies/disasters.

### **Box 2: Formulation of GIS based Master / Development Plans under AMRUT**

Formulation of GIS-based Master/Development Plans for cities covered under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) was one of the 11 reform agendas under the Mission. This was as a 100% centrally funded sub-scheme with a budget outlay of INR 5.15 billion. The main objectives of this sub-scheme were:

- a) To develop common digital geo-referenced base maps and land use maps using Geographical Information System (GIS); and
- b) Master Plan Formulation for AMRUT Cities.

Source: (TCPO, 2016)

### **5.3. Earmarking of open and green spaces as a part of all urban infrastructure programs and enable safe access for all urban residents**

The problem with physical distancing and limiting access to open spaces is that it doesn't reduce demand. People still need to go outside for exercise, play and leisure. (UN-HABITAT, 2020) The COVID-19 pandemic has brought to the fore how scarce and unevenly distributed open and green spaces are in our cities/towns. Access to such spaces is minimal, especially in poor neighbourhoods. While the Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines provide for an allocation of 10-12 square meters of open space per person (including recreational spaces, organised green and other common open spaces), most Indian cities/towns do not adhere to this norm (Ministry of Urban Development, 2015).

With the lockdown announcement, access to open and green spaces, along with all other open public spaces, was stopped. Even post lockdown, access to these spaces was restricted



to prevent the spread of infection. Preventive measures such as prohibiting the use of facilities (such as play equipment, benches, open gymnasiums, etc.) and enforcement of social distancing norms have considerably restricted access to these spaces. In India, as the lockdown restrictions were relaxed under Unlock 1.0, people thronged all available open/green spaces, at times, not even maintaining social distancing norms.

The COVID-19 pandemic and the resultant physical distancing have drastically reduced personal connections, which exacerbated social isolation and exclusion in cities. Research shows a direct correlation between social isolation, loneliness and poor health due to heart disease, dementia and immune dysfunction. (UN-HABITAT, 2020). In such a context, the need for unrestricted access to open and green spaces become even more critical. Being in the open and exercising is an excellent mechanism for dealing with the stress and anxiety being experienced by urban dwellers due to the COVID-19 pandemic and the associated restrictions. There exists enough evidence to show a positive relationship between presence and access to neighbourhood level open and green spaces and the mental health and well-being of the residents (Wood Lisa, 2017).

### **Evidences from the ground (primary and secondary)**

In Myanmar, while access to green and open spaces was provided even during the lockdown, restrictions were imposed in December 2020 as many people started visiting parks and other green areas. This overcrowding became difficult for the local authorities to manage for ensuring social distancing norms.

The head of the Garden Committee of the Udaipur Municipal Corporation confirmed that all gardens and parks were shut down during the lockdown. When the lockdown was removed, gardens and parks were reopened, albeit for a shorter duration of six hours, from 7-10 am and 4-7 pm. The access was restricted – swings and benches could not be used, and these were marked with red tape as areas that were out of bound of the visitors. The same sentiment was echoed across cities covered by this research. In many cities and towns, the public parks and gardens were also used to display IEC material (including posters and banners) about preventive practices for COVID-19, including social distancing, use of masks and hand hygiene.

### **Recommendations**

Cities and local authorities should be encouraged and supported to integrate open and green spaces as a part of their response to COVID-19 and to ensure inclusive and health focus in urban development for the future.

Local governments need to ensure that open and green spaces are evenly distributed across the city (focusing on urban poor neighbourhoods), well connected through streets, promoting walking and cycling to access such spaces. Open green spaces must be designed to allow for physical distancing, and authorities responsible for maintaining these spaces must ensure frequent and thorough cleaning and sanitisation of any high-touch surfaces.

The existing GoI's urban missions, such as AMRUT, which provide windows of opportunities for augmenting open green spaces in cities, must be leveraged. (Box 3) The AMRUT scheme guidelines should be modified to incorporate a mandate related to the design of open spaces

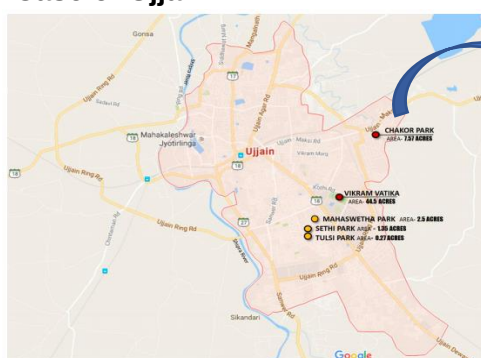
to ensure proximity and connectivity to residential areas (including urban poor neighbourhoods), size, and design to control crowding and ensure physical distancing.

Further, emergency safety protocols should be developed and communicated to all stakeholders so that parks, gardens and other open spaces can be safely accessed even during a public health emergency.

### **Box 3: Parks developed under AMRUT scheme in India**

Over 1,100 parks have been developed so far across the country under the AMRUT Mission. In addition to the completed projects, 990 projects worth INR 8.12 Billion are under progress (PTI, 2020).

#### **Case of Ujjain**



#### **Chakor Park**



### **5.4. Clear separation of wet markets and strict regulation, as a strategy for combating zoonotic diseases**

Wet markets essentially refer to assemblages of stalls that sell fresh produce like fruit, vegetables, meat and seafood. Typically, animals sold in these markets are slaughtered at the precise point of sale. The use of ice and practice of hosing down stalls to drain fluids and blood is how these markets have come to be known as 'wet.' Wet markets provide the perfect breeding ground for the transmission of zoonotic viruses as they often locate wild species of animals in close proximity to each other as well as common livestock. (Nalapat, 2020).

The origins of earlier epidemics/pandemics caused by zoonotic viruses have been traced to wet markets. For example, the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 was traced to a wet market in the southern Guangdong Province of China. In 2012, the H5N1 avian influenza (bird flu) epidemic was also traced to poultry infected by migrating waterfowl in Hong Kong's markets. Further, both HIV and Ebola made the jump to humans from endangered primates as a reported consequence of the bush-meat trade in Africa (Nalapat, 2020). There is reason to believe that many initial cases of COVID-19 in Wuhan were directly linked to the Huanan Wholesale Seafood Market. Many initial patients were either stall owners, market employees, or regular visitors to this market (WHO, 2020).

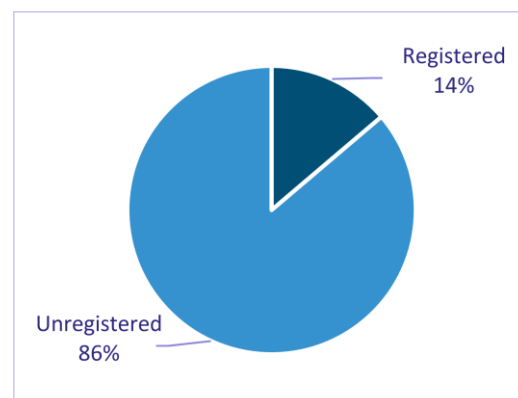
India is a huge market for animal products. Apart from poultry, animal meat and fish, a few wild species are also illegally traded for food in wet markets across the country. The potential

danger of the origin of disease from wet markets and food habits necessitates the need for adequate regulations (Goyal, 2020)

In India, the Food Safety and Standards Act, 2006 (FSSA) is the overarching legislation for food safety. The Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 govern the license and registration of Food Business Operators (FBOs), including meat and meat-based products. Part IV of Schedule 4 outlines the hygiene and sanitary practices to be followed by FBOs engaged in manufacturing, processing, storing, and selling meat and meat products. This schedule covers requirements of location, equipment and machinery, sanitary facilities, ante-mortem and post-mortem

inspection, animal welfare, personal hygiene and health requirements. (Goyal, 2020). While a robust regulatory framework is in place its implementation on ground appears to be lacking (Box 4). Of the ~29,000 slaughterhouses, only 4,000 (14%) are registered (Jahan, 2017). Further, most abattoirs are old, dilapidated and lack basic facilities like water, electricity, ventilation, drainage, ceramic flooring, lairage, holding pens, overhead rails and waste disposal which are essential for the production of wholesome and safe meat for domestic consumers (Jahan, 2017). In most meat markets, both wholesale and retail, stalls are open, and thus, contamination from dirt, dust, flies and other pollutants is rampant.

**Figure 6: Slaughter houses: Registered and unregistered**



#### **Box 4: Weak Regulation of slaughter houses**

A 2014 Supreme Court order, observed that there was no periodic supervision or inspection of slaughterhouses. Action Taken Reports (ATR) indicated that, in many states, slaughterhouses are functioning without any license and even the licensed slaughterhouses are not following the various provisions listed out in the guidelines (Goyal, 2020).

In February 2020, as a preemptive measure, the Food Safety and Standards Authority of India (FSSAI) initiated a nationwide third-party audit of slaughterhouses and meat processing units (Ahmad, 2020). The auditing parameters were comprehensive, covering design and facilities, control of operations, maintenance and sanitation, personal hygiene, training, and complaint handling. While the audit of government slaughterhouses has been completed, findings are yet to be placed in the public domain (PTI, 2020). Also, the FSSAI has taken some steps to strengthen its institutional capacity, which includes- (a) setting up of six new branch offices (in Bhopal, Chandigarh, Ahmedabad, Bengaluru, Vishakhapatnam and Krishnapatnam), four new import offices and two new food laboratories at Mumbai and Chennai (PTI, 2020).

During the COVID-19 pandemic, the Government of India (GoI) issued the Food Hygiene and Safety Guidelines for Food Businesses which applies to all FBOs and contains "measures including maintaining high levels of personal hygiene, excluding COVID-19 infected persons

from operations, practicing social distancing, and appropriate cleaning/sanitisation of the food operations' premises, food contact materials etc. (Ahmad, 2020).

### Evidences from the ground (Primary and Secondary)

In inland cities (including Lingasugur and Udaipur) there are meat and poultry shops dispersed across the city (along main roads, close to bus stops and in other market spaces) while dedicated wet market zones do not exist. On the other hand, in coastal cities like Puri, designated wet markets exist that sell fish and other animal meat, fruits, and vegetables. These markets are constructed and maintained by the respective local governments. In Puri, the Municipality is developing a designated meat market complex in partnership with the State Fisheries Department. The market is being planned as a state-of-the-art complex with well-designed stalls with water and sanitation facilities and its own Effluent Treatment Plant. As a part of allocating stalls to fish and meat vendors, the Puri Municipality has recently surveyed all vendors (registered and unregistered).

As stated above, the retail meat and poultry shops must be registered with the respective local governments. In Lingasugur and Bhilai, the Municipality's Health Department is responsible for monitoring and regulating meat and poultry shops. The health department in Lingasugur's Town Municipal Council (TMC) conducts regular (once/ twice a month) inspections and issues warnings if the outlets are not found to be following hygiene practices. The Health officer also shared that they conduct raids if they receive any customer complaints. However, despite finding anomalies, they do not cancel registration/license but only issue warnings. In addition to the Health Department of the TMC, the District Food Department is also responsible for monitoring and regulating all FBOs, including meat and poultry shops in Lingasugur. Given the lack of coordination between both agencies, they discharge their functions in complete isolation. In Udaipur, the meat and poultry shops' monitoring rests with the Chief Medical and Health Officer (CMHO) of the Udaipur Municipal Corporation (UMC), while in Puri the responsibility rests with the Puri Municipality. In Bhilai, the Food and Safety Department of Durg District is responsible for ensuring that the FSSAI guidelines are followed. The official from Bhilai believed that the comprehensive guidelines under *Swachh Survekshan* had helped them streamline the existing meat markets, which helped them control spread at such markets when COVID-19 struck.

During the lockdown, all wholesale and retail shops were shut down. Post lockdown, as the shops reopened, customers were wary of visiting meat and poultry shops, and many chose home delivery. The local governments were responsible for ensuring that meat and poultry shops, just like other shops, ensure social distancing and hygiene. In Puri, circles were drawn to ensure physical distancing, temporary sitting arrangements were made for customers waiting in the queue, and sanitiser dispensers were provided at different locations. In Puri, all market areas came under the supervision of a newly created position, the Incident Commander, under the State Disaster Relief Department. The *Tahsildar* served as the Incident commander and was responsible for inspection and crowd control in all market areas. In Bhilai, after COVID-19, the health supervisor carries out daily supervision of meat markets, and the frequency of inspections at the slaughterhouses has also been increased.

### Recommendations

Institutionalising mechanisms that allow for clear demarcation and physical separation of wet markets at the wholesale and retail level is crucial to reduce the risk of origin and early spread

of zoonotic diseases. Specifically, the town planning guidelines should include a separate subcategory for wet markets under the commercial land use category. Further, city plans should demarcate spaces for wet markets at the wholesale and retail level, and the same should be included in land use zoning regulations.

Food Safety and Standards Licensing and Registration of Food Businesses Regulations, 2011 need strong enforcement. The local governments must ensure that all slaughterhouses and meat processing units located within their jurisdiction are registered with FSSAI while all retail meat, fish and poultry shops are registered with the ULBs. Also, the third-party audit of slaughterhouses and meat processing units, which FSSAI initiated in February 2020, should be carried out on a regular periodic (annual) basis and the ratings achieved should be made a pre-requisite for license renewal. The findings of the audit should be placed in the public domain.

Further, the regulations for wet markets must be expanded to include drainage, design of the flow of goods and people, the distance between stalls, hygiene facilities for hand-washing, protocols for disinfecting, signage, etc. The regulations must also incorporate special codes which are to be applied during early and advanced stages of disease spread. These should outline elements such as special protective gear, entry restrictions, higher hygiene standards, opening and closure, etc.

### **5.5. Revisit the National Health Policy (2017) to ensure adequate investments for augmenting the public health infrastructure**

The COVID-19 pandemic resulted in a massive demand for health facilities, including isolation wards, intensive care units, etc. During the initial phase of the pandemic, positive cases were referred to government hospitals, which created a huge stress on the existing public health infrastructure. It was unable to provide necessary healthcare to affected individuals and provide other regular services to others. Private healthcare is expensive and was thus out of reach for most of the urban poor households.

India is at the bottom of the list (fourth lowest) with respect to the proportion of health budget in terms of the Gross Domestic Product (GDP). During 2013-14 and 2019-2020, the health budget has hovered around 1 per cent of its GDP. The National Health Policy, 2017 (NHP, 2017) articulates the need to augment health care expenditure as a percentage of GDP to 2.5% by 2025. While India's per capita public expenditure on health has increased more than twice, from INR 621 per person in 2009-10 to INR 1,657 in 2017-18, it still remains very low compared to other countries (Chandna, 2019). Further, only 0.55 beds are available per 1,000 population in India. The NHP, 2017 also provides that the national healthcare infrastructure (primary and secondary care facility) should be provided as per norms (population as well as time to access). Underfunded and weak public health system with limited infrastructure, resources, and personnel has limited the country's ability to provide appropriate and timely healthcare for patients infected by COVID-19.

The crisis also brought to light the importance of public healthcare workers for an adequate response. In India, a large number of healthcare positions lie vacant (Amar Patnaik, 2020). To meet the huge demand of health workers, the Ministry of Health and Family Welfare (MoH&FW) issued a notification for hiring qualified specialists, medical graduates, staff nurses



and other paramedics, including retired professionals at various government hospitals on a short term contract basis. The NHP, 2017 provides that health workforce across all levels - medical, paramedical and frontline health workers – should be ensured as per the Indian Public Standard Norms by 2025.

While India has an extensive network of primary health care centres, they are often underfunded, ill-equipped and understaffed. Also, tertiary health care is inadequate – various reports put the available human resources for health at 8 to 11 per 10,000 population as against the WHO's norm of 25 to 26 per 10,000. According to one estimate, the number of allopathic doctors, nurses, and midwives combined (at 11.9 per 10,000 people), half the WHO benchmark (Krishna D Rao, 2016). A robust primary health care system is crucial for reducing the high costs associated with tertiary care. It can help diagnose and refer to disease early on to prevent many conditions from becoming adverse. Since most health conditions, infectious or non-communicable, are preventable, this strategy keeps the health system's burden low and minimises Disability Adjusted Life Years (Amar Patnaik, 2020). A CII report highlighted that primary health care services were unable to cope due to lack of basic supplies and equipment, shortage of skilled work force, medical and paramedical staff (including doctors, nurses, mid-wives, auxiliary nursing midwives, ASHAs and Anganwadi workers) who were overburdened with long hour duties has further worsened the situation (CII, 2020).

Quality of service delivery is an essential component of building trust with communities and citizens and improving the utilisation of public health facilities. The *Mohalla* clinics run by the Delhi government have significantly improved service quality for the urban poor and have seen higher utilisation due to lesser waiting time at clinics, increased interaction time with the doctor, perceived performance of doctor, and effectiveness of treatment (Tanisha Agrawal, 2020).

In a vast majority of (94%) countries responding, to COVID-19 health staff working in the area of Non-Communicable Diseases (NCD) were partially or fully reassigned to support COVID-19 due to which routine health care services faced disruption (WHO, 2020). Routine health services like Maternal and Child health care, NCDs (like cancer, heart disease, stroke and diabetes, mental health and disability), family planning, immunisation and antiretroviral therapy for HIV, mental health and disability were adversely impacted in India as well.

Outreach-based public health measures are centred on extensive testing and case identification, isolation and treatment, meticulous contact tracing, home quarantine of contacts, and localised restrictions on movement in some cases. The Korean Model, a vigorous regime of "trace, test, treat", has shown remarkable results in controlling the spread and mortality due to COVID-19 without a nationwide lockdown by conducting as many as 18,000 tests a day over 650 testing centres nationwide. Anyone in Korea who has symptoms or reasons to be tested can get the test within minutes at 'drive-thru' or 'walk-thru' testing centres and receive the result by text message the very next day. The government also exhibited a full commitment to sharing information in a prompt and transparent manner and has gained public trust and high-level civic awareness, which encouraged the public to take voluntary self-quarantine and other preventive measures such as social distancing (Haider, 2020).

On the other hand, India adopted a strict nationwide lockdown that acted as a barrier for access to general/routine health care services and resulted in enormous social and economic



costs, especially for the urban poor. The unintended consequences of the lockdown restrictions on healthcare access and health outcomes for patients needing lifesaving care have been alarming. With the access to health services severely disrupted; mortality increased by 64% between March and May 2020; and there was 25% total excess mortality in the four months after imposition of the lockdown. Although critical health services were officially exempt from the lockdown, these exemptions were hard to implement – patients had difficulties obtaining administrative permissions and finding transport. Hospital and pharmacy supply chains were disrupted. It was seen that service access did not return to normal even after the lockdown was eased, suggesting that adverse effects on morbidity and mortality may continue to unfold over the coming months if further action is not taken (Jain & Dupas, 2020).

With the onslaught of COVID – 19, health care professionals across all levels were caught unaware as they were not well equipped to respond to a public health emergency of this magnitude and duration. The perceived risk among public health workers was associated with several factors peripheral to the actual hazard of COVID-19. These risk perception modifiers and the knowledge gaps became barriers to the adequate response. Several state-specific prevention strategies required tailoring the technical capacity of human resources. In Uttar Pradesh, for instance, frontline health care workers were provided training support on infectious disease control, and the modules focused on how to navigate sociocultural gatekeepers to enable behaviour change at the community level. Similarly, in Punjab, an effective outreach program helped motivate families and individuals to moderate alcohol consumption and adopt healthier diets. This outreach level requires a dynamic primary healthcare system that is adept at responding to local needs with local contexts and utilises technology to deliver the quality of care at primary, secondary and tertiary care centres (Amar Patnaik, 2020).

The ongoing pandemic has also brought to light the inadequacy of public healthcare services, particularly for people living in poverty who cannot afford health care services available through the private sector. Some national and state-level initiatives have provided free testing and treatment services for the poor under existing national and state health schemes. One such step by the National Health Authority (NHA), was to allow Pradhan Mantri *Ayushman Bharat Jan Arogya Yojana* (PM-ABJAY) beneficiaries to avail free testing at laboratories empanelled and approved by the Indian Council of Medical Research (ICMR). Further, to provide free testing and treatment for PM-ABJAY beneficiaries even at private hospitals/labs, NHA approved packages for COVID-19 testing which are being used by many states in the country (Kumar R. , 2020). Similarly, the Maharashtra government announced free treatment services for all residents under the *Mahatma Jyotiba Phule Jan Arogya Yojana* (MJPJAY) (ANI, 2020).

### **Evidence from the ground (Primary and Secondary)**

*Bolstering health care workforce with additional hiring:* The Odisha Government announced engaging doctors and paramedical staff to deal with the impending crisis that may crop up due to a sudden spike in COVID-19 cases (Rout, 2020). Additionally, AYUSH doctors were also roped in to strengthen the frontline medical teams in combating COVID-19 in their respective areas (Express News Service, 2020). In Bangalore, the vacant public health worker positions were filled as a step towards preparedness. A blanket order was issued to fill all vacant posts, create additional posts (including doctors, nurses, lab assistants and support staff) and hiring of doctors/staff on a contract basis in 12 hospitals of Bengaluru Urban and Rural Districts.

*Shadowing general healthcare:* It was reported in Delhi, and other cities that Municipal doctors were assigned pandemic related duties and hence were unavailable for general medical care. Even the routine medical services faced disruptions-challenges were reported to access dialysis, chemotherapy and even neonatal care in cities like Delhi and Bangalore. In smaller urban centres like Lingasugur, respondents reported that people with existing health ailments had difficulty accessing health services.

In the wake of the pandemic, expectant mothers had to face challenges in accessing health care due to the closure of doctors' clinics, Out Patient Departments (OPDs) of hospitals and Anganwadi Centres (AWCs). Pregnant women from poor families were often left unassisted as most public health care institutions were turned into COVID -19 testing/treatment facilities. In Bangalore, pregnant women suffered adversely as their access to health care was disrupted, and they were fearful of visiting hospitals and thus opted for delivery at home. Moreover, one million fewer children were vaccinated in the month of April 2020, risking the health of the next generation.

*Provision of healthcare services through mobile clinics in urban poor settlements:* Cities like Pune, Bhilai and Lingasugur initiated mobile health services for slums and urban poor settlements to ensure continuity of health care services. These services helped many residents access medical treatment of minor ailments at their doorsteps during and post lockdown. In Pune, the Pune Municipal Corporation (PMC) launched mobile dispensaries through 15 ambulances/buses which were converted after most private physicians shut down their clinics in COVID-19. This initiative, 'doctor at your doorstep,' was launched to reach the residents of slums, temporary shelters and old-age homes in the city. The ambulances were allotted to each of the 15 wards equipped with one doctor, one nurse, one attendant and a volunteer, and they work from 10 am to 5 pm in various localities of the city (Bari, 2020).

Similarly, in Bhilai, a mobile unit consisting of a doctor, sample technician, attendant and driver were provided for mobile health care services. Likewise, free healthcare services were provided to all with the support of *Rashtriya Bal Swasthya Karyakram* (RBSK) mobile team consisting of Doctor, Nurse, Medical Officer and ASHA in Lingasugur and other cities in Karnataka. Additionally, Karnataka launched a mobile COVID-19 laboratory. It was the first of its kind mobile testing facility equipped to conduct RT-PCR (Reverse Transcription Polymerase Chain Reaction) tests approved by ICMR. (PTI, 2020).

*Standardising charges:* To ensure equitable access to treatment facilities and restrict overcharging by hospitals, several state governments capped the rates charged by private hospitals for treatment of COVID-19. In Delhi, the prices for an all-inclusive package for NABH -accredited hospitals were to be capped at INR 10,000, INR 15,000, and INR 18,000 per day for isolation beds, ICU beds without ventilators, and with ventilators support, respectively. (Dash, 2020). Similarly, the Government of Punjab capped the treatment charges for COVID-19 starting from INR 4,500 to INR 18,000 depending upon the criticalness of the health and services being provided (Hindustan Times , 2020). Likewise, in Goa initially, private hospitals were overcharging and based on public outcry, the state government intervened to cap the charges for both testing and treatment - the testing charges were thus reduced from INR 4,500 to INR 1,900 for RT-PCR.

*Grievance Redressal Systems:* Adequate and accessible grievance redressal systems for addressing public grievances regarding bills of private hospitals related to testing and treatment of COVID-19 were set up in several cities, including Pune, Delhi and Bangalore. It was envisaged that the committee would not harass private hospitals but seek better cooperation as many private hospitals were doing a great job to ensure smooth treatment of patients. In Pune, the district administration constituted a health committee to address complaints of refusal of admission in private hospitals or disputes regarding hospital fees. The committee, formed under District Collector, has powers to recommend action against private hospitals, empowering the administration to take control of 80 beds across private hospitals in the city (Times, 2020).

## Recommendations

With the COVID-19 pandemic in the backdrop, it is time that the agenda of "Health for All" gains resurgence. There is a need to revisit the NHP, 2017 and ensure that the commitments made regarding investments for augmenting public health services (including physical infrastructure and human resources) must be ensured. Augmenting the public health systems for primary, secondary and tertiary care, focusing on preparedness, hold the key for a more structured response to future public health emergencies/disasters.

There is an urgent need for ensuring that the commitments made under the National Health Policy, 2017, are fulfilled. These commitments are making adequate investments towards augmenting the public health infrastructure to enable the provision of at least 2 beds per 1000 people by 2025 (as per the NHP, 2017) and ensure increased workforce across all levels – medical, paramedical and frontline health workers. Further, the Government of India should commit to spending at least 2.5% of GDP on health care, in tandem with the norms set in the NHP, 2017. To ensure that there is no disruption of general/routine health care and critical and non-elective health services continue uninterrupted, prior health system planning must be undertaken.

*Bolster primary healthcare system's preparedness through investments in infrastructure and human resources:* There is an urgent need to strengthen the primary health care system's infrastructure. In addition, the human resources responsible for the primary health care system needs to be increased to the norms set out in the NHP, 2017. The vast network of private hospitals, clinics and other doctors/paramedics must be leveraged for ensuring adequate access to affordable and quality primary healthcare services. The learnings from Delhi's experience of running the Mohalla clinics and other similar best practices can be explored for potential replication.

*Augment public health workforce preparedness for future public health emergencies by increasing public health workforce and providing training and capacity building inputs:* In order to ensure the preparedness of the health care system for any public health emergency, the Ministry of Health and Family Welfare (MoH&FW) should ensure increase in public health workforce, including medical, paramedical and frontline health workers as per norms mentioned in the NHP, 2017. The GoI' Digital Infrastructure Knowledge Sharing' (DIKSHA) platform, which was created for the training of frontline workers, should be popularised and used for training of FLWs.

*Ensure continuity of disease control programs and rehabilitative care, with a strong focus on poor and vulnerable communities:* Concerted efforts are required for ensuring continuity of disease control programs, particularly for chronic/long term care needs such as Tuberculosis, HIV, NCDs, Mental Health and Disability to ensure that the positive impacts of the disease control programmes are not diluted, and there is no resultant mortality due to lack of access to health services. Special thrust is required to ensure continuity of essential health services, including rehabilitative care as well as continuity of care by seamless referral services. Steps should be taken to ensure that there is no disruption of routine medical services for vulnerable and marginalised persons, including persons with disability.

*Ensure continuity of primary health services for residents of slums and low-income settlements through mobile services:* Through the deployment of mobile teams of doctors, nurses, front line workers technicians, continued delivery of primary health services to the residents of slums and low-income localities must be ensured. A mobile dispensary should support this to ensure the supply of medicines and provide easy access to testing by rolling out mobile testing units.

*Adoption of appropriate technologies to minimise disruptions to routine medical care:* Technology applications (telehealth and telemedicine) must be encouraged to monitor patients and provide remote consultations as a strategy to minimise disruptions to routine medical care.

*Standardisation of Health care charges (including testing and treatment):* Health care charges must be standardised to ensure affordability for all. This should be accompanied by awareness generation about schemes and measures for free testing and treatment such as PM-ABJAY and other relevant schemes as applicable from time to time. Grievance redressal systems should be in place for resolving public complaints if any.

*Engaging the private sector:* The private healthcare sector's capacities need to be leveraged effectively to provide services during a pandemic. The guidelines defining the engagement for testing and treatment need to be developed by the Ministry of Health and Family Welfare. Once the contours of the engagement are well defined, communicated and understood, the operationalisation in a public health emergency could be rapid and seamless.

## **5.6. Ensuring business continuity and realigning flexibilities**

The COVID -19 pandemic and the associated lockdowns had a drastic impact on the national, city economies, government and work processes. The pandemic has led to each sector of the economy including government, services and manufacturing having to rethink their prospects and work processes. The pandemic has also brought to the fore that ensuring the ability of business processes to revive, continue and realign is critical to a resilient economy especially in the urban context. Much of this report deals with the issues around the systemic flexibilities required in services and government processes for the poor, in this section the focus is on evidence around business continuity in manufacturing and the labor requirements of the sector in cities. The lockdown resulted in all key segments of the manufacturing industry shutting down following the Centre and State government's orders. It is estimated that there was a USD 31 billion worth reduction in manufacturing activities due to COVID-19 associated lockdowns (Economic Times , 2020).

In the post lockdown phase, given the demand for new products such as PPE kits and ventilators, many businesses quickly made the shift. The virus overwhelmed the global production capacity of PPE, which was the most critical product to protect the frontline health workers. India was a complete import-dependent as far as PPE kits are concerned. In January, there were only 275,000 PPE kits available, that too owing to timely import. The Ministry of Textiles, GoI stepped into leading the assessment of the availability of all protective wears for the frontline health workers. What followed this is a remarkable journey of collaboration between governments at the central and state levels, industries and workers and community-based groups like SHGs to revamp existing production lines to manufacture a completely unknown product. This saw the PPE industry record a 56 times growth in 60 days between March and May 2020 – the production grew from zero to 4.5 lakh PPE kits per day. (India, Invest, 2020).

A similar story comes to light with respect to the manufacturing of ventilators. In March 2020, the Empowered Group of Secretaries (EGoS) estimated that India would need 75,000 ventilators by June. The government, accordingly, gave tenders to two companies to manufacture 30,000 ventilators in six weeks and 10,000 ventilators in a month, respectively, by the end of May. Since then, over a dozen entities have boosted the ventilator manufacturing capacity of India. These include large-scale automobile and Information Technology (IT) companies as well as universities and independent startups, and even National Aeronautics and Space Administration (NASA) - licensed firms replicating the prototype developed by NASA's Jet Propulsion Laboratory (India, Invest, 2020).

In 2020, the COVID 19 pandemic challenged the Indian economy resulting in the possibility of a breakdown of the Micro, Small and Medium Enterprises (MSMEs). The Government of India was quick to respond with measures to safeguard the MSME sector and announced the 'Atmanirbhar Bharat' scheme on 13 May 2020. As part of this scheme, the definition of MSME has been revised with an upwards revision in the investment limits – micro-enterprises are defined as those with an investment of less than INR 10 million; small enterprises are to have an investment of less than INR 100 million and a turnover of less than INR 500 million, while medium enterprises are those with an investment of INR 500 million. Further, under the Credit Guarantee, sub-Scheme unsecured loan facilities were provided to MSME businesses, whereby they can avail collateral-free term loans or working capital loans. In addition, under the *Atma Nirbhar Bharat* Scheme the government made provision for INR 200 billion as subordinate debt to help MSMEs with stressed accounts or non-performing assets (NPA). The government has also created a fund with a corpus of INR 500 billion for MSMEs with growth potential and viability. The objective of this fund is to infuse equity to help MSMEs expand and grow (NovoJuris Legal, 2020).

### **Evidence from the ground (primary and secondary research)**

In Bengaluru, 108 licenses were issued in the post lockdown period, while only 11 sanitiser manufacturing companies existed prior to COVID-19. Of the total 119 license holders, 81 were pharmaceutical companies, and 38 were distilleries. Due to this, the production capacity is more than 400,000 litre per day, to meet the new requirements whereas the requirement as per the contingency plan was only 20,000 litres per day.

Emerging as one of the critical areas of livelihood and social protection in India during the pandemic is workers' relative skill levels. Whether it is the large construction market or even



the manufacturing sector, they often employ workers informally without any written contracts. The economic slump triggered by the pandemic sparked the dismissal of many informal workers who were unfortunately disposable without any social insurance. Through our key informants interviews, we found that many of the informal workers, such as auto-rickshaw drivers, domestic workers, hotel staff, etc., started vegetable vending and vending of other essential goods such as masks, sanitisers and hand-wash soaps to make a living during the trying times.

Street vendors were another group of urban workers who were adversely affected. Operating with small working capitals, the street vendors had little capacity to deal with the supply chain disruptions. While the GoI announced a scheme, PM Street Vendors *Atma Nirbhar Nidhi* Scheme, to provide a micro-credit facility for the street vendors, the awareness of the scheme was limited. The street vendors believed that a cash benefit would have helped them more than a credit facility as their business, and thus their ability to pay back the loan was relatively low.

Many workers in the formal sector also lost their jobs and couldn't find alternative employment due to the absence of jobs and limited skills.

Also, private operators of buses and drivers of buses and IPT services (including autorickshaw and cycle rickshaw drivers) also suffered a setback. During the lockdown, their means of livelihood came to a stop as all transport services were halted. In the post lockdown phase, also people avoided public transport services, and their business was much lower than pre lockdown times.

### Recommendations

To ensure business continuity in cities, there is a need to ensure that businesses which are impacted by these shocks are adequately supported through financial, process reengineering and guidance to alternative business opportunities. As shown above the government has attempted to provide such support, but a more systematic review and policy options need to be put in place for each industry under shock conditions. This could take the form of business continuity contingency funds, tax breaks to the formal sectors or direct cash support to urban poor workers, based on asset and labor inventorisation at the level of each business.

Authorities should create a record of the informal workers in the country and assess their skill levels to help provide them with adequate skilling inputs under the National Skill Development Mission to access other employment opportunities.



## 6. Enable Legal Reforms and Revisit Governance Responsibilities, Scales and Interfaces

Instituted upon making governance participatory, inclusive and transparent, India introduced the 74th Constitutional Amendment in 1992, which intended to strengthen grassroots-level democracy by decentralising governance and to empower local political bodies. It provided the necessary legislative backdrop for decentralisation and establishing the local governments or urban local bodies in India (Biswas, 2020). However, though political decentralisation has been successfully achieved by establishing local government bodies, the actual transfer of functions, finances, and functionaries to these institutions remained incomplete, further weakening the system and inhibiting its proper functioning (India Development Review, 2020). The Act mandated that in all ULBs with populations of 300,000 or more, wards committees should be constituted to serve as an administrative entity for a group of electoral wards to look after that geographical area's civic affairs. Moreover, to further institutionalise citizen participation at the ward and neighbourhood level, a model law called the Nagara Raj Bill (NRB), or Community Participation Law, was introduced by the Government of India in 2006. It suggested states to amend their respective municipal acts and institutionalise citizen participation by introducing the concept of Area Sabhas (consisting of all registered voters of a polling booth) in urban areas (Community Participation Law, 2006). Despite the Indian government's efforts in institutionalising participation and decentralisation of the government, it is faced with numerous challenges on account of the weak implementation of the legislation, policies, and programmes (Tripathi, 2018) which have been highlighted during the ongoing COVID-19 Pandemic.

The Disaster Management Act, 2005 (DMA, 2005) lays down the institutional and coordination mechanisms for effective disaster management (DM) at the national, state, and district levels. While the division of roles across the various tiers of government is clearly defined, the COVID-19 Pandemic has brought to light the weak inter-tier coordination, which has, in many cases, resulted in a delayed and inadequate response. For instance, even after weeks of invoking DMA and issuing multiple Standard Operating Procedures (SoPs) and guidelines, there were cases of disruption of supply chains of essential commodities due to sealed state borders, lack of PPE kits for frontline workers, the mass exodus of migrant labourers, among others (Luthra & Goswami, 2020). Thus, inter-government coordination mechanisms need strengthening.

Further, the DMA, 2005 provides prominence to the district government – in the event of a disaster, the district authority becomes the focal point for coordination and monitoring of the National/State Policy as well as the National, State and District plan and for coordinating all relief and response activities. In such a background, the local government's powers as institutions of local governance get compromised (EPW Engage, 2020). Given that this tier of government is the closest to the ground, it is critical to activate the local government's powers (Urban Local bodies) to assess and lead the government response.

Community participation has emerged as a key to managing the pandemic -- from compliance with lockdown, the steps needed to be taken as the country eased the restrictions, to community support through volunteering. Hence, there is a need to revisit the governance system to empower the local authorities through devolution of functional and financial autonomy and to strengthen the community-level organisations at the lowest level, i.e. the

ward and neighbourhood level, to ensure that the power rests with the people, not just on paper, but also in practice. Community involvement is likely to play a critical role in planning local-level actions in collaboration with local bodies, including identifying vulnerable households, providing support to the elderly and those in quarantine, developing and rolling out communication strategies, and helping in contact tracing among others.

The continuing responses to the challenges posed by COVID-19 have accentuated the need to recognise the role that transparent decision-making plays in the effective management of a disaster/public health emergency. Proactive communication allows the adoption of protective behaviours, facilitates increased disease surveillance, reduces confusion and allows for better use of resources, all of which are necessary for effective response (Malley, Rainford, & Thompson, 2009).

Further, technologies that enable digitisation and spatial analysis should be integrated into the planning processes. There is rich evidence to show the benefits of integrating Geographic Information Systems (GIS) in spatial planning and tracing and tracking COVID-19. However, reliance on technology for free dissemination of information comes with a caveat of misuse of data available on open source. Therefore, there is an urgent need to ensure robust data protection and privacy framework before seamless integration of technology and governance.

### **6.1 Expand engagement with the fourth tier of government alongside providing opportunities for localised action and innovation**

Managing the COVID-19 pandemic has been a challenging task for governments worldwide, especially in India, where the focus has been on stopping the spread of the virus and minimising the socio-economic damage caused in the aftermath.

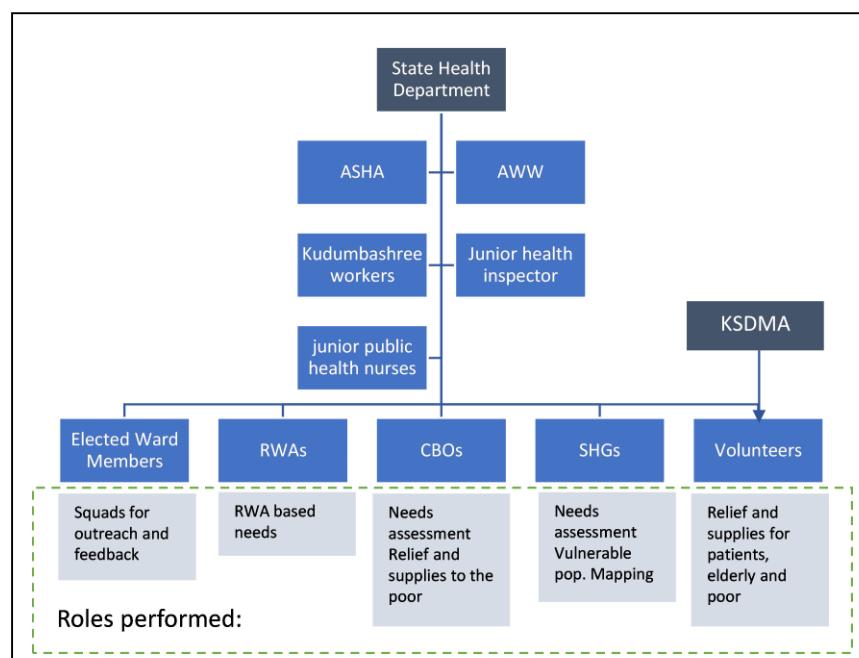
South Korea garnered much positive attention for its swift management of the COVID-19 pandemic. The country's Civil Society Organisations (CSOs) played a pivotal role in monitoring the situation on the ground, assisting government agencies, and reaching the most vulnerable social groups and populations. Similarly, in India, various civil society organisations, including NGOs, Community based organisations (CBOs), Resident Welfare Associations (RWAs) and individual citizens, have come forward to support the government's response. However, most of these efforts have been spontaneous and lack effective coordination with government agencies. Given the complexity and diversity of Indian cities, resilience can only be built on the back of participative and localised governance systems that provide opportunities for engagement with the fourth tier of governance, which includes community-based groups and community-based organisations (including but not limited to Slum Dwellers Associations, Self-groups, other women's and youth groups). The trust that the CBOs and CSOs build with the local community facilitates the action on the ground.

During the Ebola outbreak in West Africa, the community witnessed the fragmentation of social cohesion due to lockdown, cessation of economic activities, high mortality, weakening of their old culture and traditional practices related to community gatherings, greetings, burials of dead bodies. This created mistrust and led to violence and attack by community groups on Government and community health workers. The community perceived them as actors contributing to the persistence of the outbreak. As a result, health staff were forced to avoid communication about the disease in the community. This tension and conflict were addressed by instating a strategy to engage community-based groups and community leaders to deliver

responses on the ground. The empowerment of communities facilitated their effective and efficient involvement in observing the EVD (Ebola virus disease) outbreak control measures (Camara, et al., 2020).

Among the Indian state, Kerala stands out with a well-established system of engagement of various local actors. The Kerala state health department ensured close coordination between FLWs (ASHA, AWWs and ANMs), Kudumbashree workers, junior health inspectors, junior public health nurses, ward members and resident associations as a strategy for dealing with cases of local and community transmission (Kumar, 2020). Besides,

**Box 5: Representation of the Community structure adopted for COVID-19 response in Kerala**



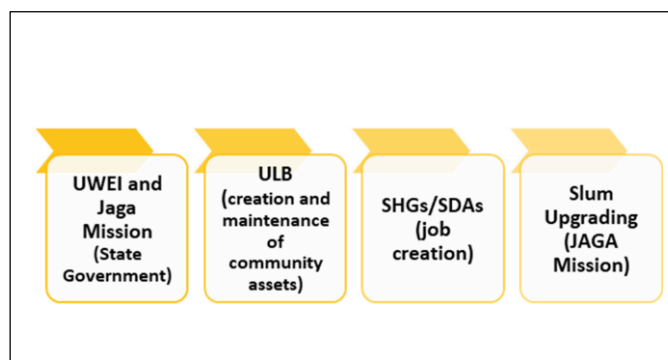
Kerala followed a community-based approach steered by the local governments, and the state has a vibrant and successful tradition of an empowered fourth tier. Under the leadership of the elected ward member, squads were formed for outreach and feedback with Kudumbashree workers' support. Further, women's empowerment groups were marshalled to undertake a needs assessment, including mapping of the vulnerable people (elderly and ones with co-morbidities) to ensure their access to food and medical care while self-quarantining – an acceptable, workable, and scalable solution (Balsari, Sange, & Udwadia, 2020). The experience of the Kerala Sannadhasena also highlights the role of citizen volunteers (Sannadhasena, 2020). The Kerala State Disaster Management Authority (KSDMA), learning from its experiences during the floods of 2018, constituted the Kerala Sannadhasena - a platform that allows volunteers and voluntary organisations to work in tandem with government agencies. During the COVID-19 pandemic, the platform helped mobilise ~236,000 volunteers across the state (Vimal & Chandran, 2020). These volunteers helped transport cooked food from the community kitchens and dry ration to the houses of the families who were in quarantine or could not afford to buy food (Sannadhasena, 2020).

As we enter a crucial phase of the COVID-19 pandemic response, engagement with the fourth tier would be crucial to help the governments and support them in reducing caseload, carrying out vaccination and ensuring long term risk mitigation. The management of COVID-19 depends on the practice of regular handwashing, respiratory etiquettes, identification of contacts and contact tracing, identification of positives and isolation. Further, information dissemination on these crucial aspects, helping reduce the stigma of the disease and building community confidence are elements that the CSOs/NGOs can anchor.

Some states like Odisha have successfully engaged with the fourth tier of government during COVID-19. Through its Urban Wage Employment Initiative (UWEI), the Government of Odisha effectively engaged with the fourth tier, i.e. Slum Dwellers Associations (SDAs) and Women Self Help Groups (SHGs), leveraging their skills and labour to create and maintain community assets while creating jobs for urban wage seekers.

The programme links upwards with the Jaga Mission – a state government initiative to provide adequate housing to slum dwellers in all urban centres across the state, anchored by the respective ULBs. UWEI provided job opportunities to the migrants in the post lockdown period in Odisha. Till Feb 2021, the scheme could create 12.94 lakh person-days of work for 3.70 lakh urban wage seekers through engagement of 5723 SHGs, 466 SDAs and 2035 ward committees. The scheme benefitted the differently-abled and women wage seeker (HUDD Government of Odisha, UWEI Cell, 2021). Few other states like Jharkhand, Himachal Pradesh, and Madhya Pradesh also launched similar initiatives in urban areas in 2020 (Shukla, 2020).

**Box 6: Engaging with the fourth tier of Governance – Case of UWEI in Odisha**



Dharavi, which is Asia's biggest and densest slum, saw a hand-in-hand civil society members' involvement with the healthcare workers for contact-tracing. This partnership helped in rapid contract tracing that kept the spread of infection under control. From 491 positive cases in April to 1,216 cases with over 56 deaths in May and then reducing the numbers significantly with zero deaths in June was not an easy feat to achieve. However, the united efforts of CSOs and the government taskforce exhibited that it was possible (Gopal, 2020).

### Evidence from the ground (primary and secondary)

Our interactions across cities covered by this research brought to light numerous examples of community, CSOs, CBOs, RWAs and volunteers playing vital roles in every aspect of disease management and providing relief to vulnerable populations (including migrants, urban poor, elderly, etc.).

KIIs conducted with slum resident's collectives in Delhi and Malerkotla revealed that they benefitted immensely from the services provided by the NGOs and CBOs. These actors' embedded knowledge was essential in supporting public processes, but private efforts and initiatives also bolstered efforts at the local level. In cities like Muzzafarpur, Ajmer and Jhansi, active private (individual and organisation) participation was observed explicitly relating to the provision of essential services like groceries to the needy.

Experiences from the field show that cities with existing and active networks of CBOs were able to respond faster as they were well aware of the local situation, the needs/requirements and had well-established links within the community. According to the Executive Officer, Dhenkanal Municipality, even though they did not have access to maps and data, they were able to reach the most marginalised communities very quickly due to the active participation of CBOs. Parallel non-spatial information systems facilitated through CBOs become crucial in

cities and towns that did not have databases and maps, especially slum data. Local community-based networks have also helped Frontline Workers (FLWs) undertake their duties by providing information and insights.

### Recommendations

For building resilience, there is a need to build engagement with the fourth tier (comprising of CSOs, CBOs, RWAs, etc.) and provide ample opportunities and spaces for local actors to respond and innovate.

The provisions for decentralised governance outlined under the 74th CAA that pertain to the "Ward Committees" constitution should be created/activated. Ward Committees should become focal points where various local actors, including CBOs, RWAs, SHGs, volunteers, can interact, discuss and resolve local issues/challenges. The Ward Committees should also become focal points for data collation, information dissemination, IEC campaigns and grievance redressal.

A collaborative approach must be adopted to manage any disaster / public health emergency, including encouraging the active involvement of NGOs, CBOs, RWAs, SHGs, etc. These organisations can be involved in patient care, community sensitisation on positive hygiene practices, inculcating behavioural change, and contact-tracing. The emphasis should be on reaching the vulnerable population groups (elderly, differently-abled and those having terminal diseases) and groups (urban poor, slums and pavement dwellers). In addition, community-centred guidelines for people to self-organise and self-care must be vigorously disseminated.

Instances where states and cities have effectively engaged with the fourth tier must be studied and used to create a participation framework.

## 6.2 Minimise risks, ensure preparedness and create awareness on schemes meant for Frontline Workers (FLWs)

The pandemic has thrown up unprecedented challenges that have significantly impacted the Frontline Workers (FLWs), including ASHAs, AWWs, ANMs, and sanitary workers, who have served as the first line of government response. The challenges faced by FLWs received much attention worldwide – as per the Press Scan Analysis, 'Frontline worker's issue' received 23%, 32% and 31% coverage of the clinical care news globally, South Asian and India level respectively.

### Evidence from the ground (primary and secondary)

The availability of Personal Protective Equipment (PPE) and its consistent and appropriate use by healthcare providers and public health professionals is crucial for combating any infectious disease. The rapid spread of COVID-19 created a temporary shortage of PPE kits in India. The lack of PPE kits also affected healthcare workers' (HCWs) morale and other frontline warriors fighting COVID-19. As corroborated from the field, the FLWs had limited access to PPE kits, thus, exposing them to the risk of infection. In Delhi and Bangalore, while PPE kits were initially not provided to FLWs, this issue was addressed as supplies subsequently increased. In Malerkotla, PPE kits were made available only to sanitation workers responsible for collecting waste from the houses of COVID-19 positive patients, while the rest were provided with only sanitisers and masks. In Bhilai, PPE kits were given only once



to FLWs with no further replacements. ASHA workers in Ajmer were neither given PPE kits nor sanitisers as they were part-time workers.

FLWs have been allocated additional duties related to COVID-19, including community awareness through Inter-personal Communication (IPC), house to house surveillance, identification of high-risk groups, testing and tracking. In most cities, FLWs were not incentivised for this additional work except in Punjab, wherein an additional incentive of INR 1,500 was given to ASHA workers. The FLWs in Lingasugur, Bhilai and Jhansi reported being overburdened due to the need to adhere to additional safety protocols while collecting and disposing of bio-medical waste. FLWs from Pune also reported additional financial burden as they had to buy android devices and internet data packs for discharging their COVID-19 related duties.

As the fight against COVID-19 becomes long-drawn, the Front-Line Health Workers (FLHWs) have become particularly vulnerable to mental stress. FLHWs have experienced stigmatisation, isolation and social ostracisation. Coupled with this, the apprehensions regarding the risk of infection, the sufficiency of protection and the long working hours have led to severe psychological distress. If not effectively treated, such stress can transform into persistent illness. NIMHANS and the Department of Health and Family Welfare, Government of Karnataka, have developed "Guidelines for Mental Well-being of the FLWs during the COVID-19 pandemic", which call for adherence to workplace bonding, reducing isolation, discussing issues of distress, problem-solving and enhancing social support. The protocol is to be adhered to across all government hospitals in the state. Structured and confidential mental health services for FLWs is the need of the hour.

The COVID-19 pandemic has also brought to the fore the need for training and capacity building of FLWs to ensure preparedness for public health emergencies/disasters and enable them to protect themselves from risks. During COVID-19, while some specific instructions were provided to FLWs in Pune regarding hand hygiene and social distancing, specific training was not conducted either by the district or local government. Similarly, in Bhilai, COVID-19 related instructions were put up on the notice board with no specific training.

The Government of India announced an insurance scheme for health workers fighting COVID-19 on 30th March 2020. The 'Pradhan Mantri Garib Kalyan Package Insurance Scheme for Health Workers Fighting COVID – 19' provides a cover of INR 5 million for healthcare providers, ward-boys, nurses, ASHA workers, paramedics, technicians, doctors and specialists, other health workers and Safai Karmacharis, who may have to be in direct contact and care for COVID-19 patients and are therefore at risk of being infected. It also includes accidental loss of life on account of contracting the disease. Due to low awareness about the scheme and the convoluted process of accessing it, the uptake has been low. Findings from KIIs reveal that FLWs were unsure whether they are covered and had limited information about how to avail the benefit. The scheme's uptake has been deficient – till 15th September 2020, only 282 claims were received, out of which only 61 claims had been processed (PIB, 2020).

Some state governments also made concerted efforts to provide health insurance coverage to FLWs. In Delhi, an insurance scheme worth INR 5 million was announced for FLWs (PTI, 2020). While frontline health workers were aware of the scheme, ASHA and AWWs were unsure if they were covered. Frontline workers in Pune, Jhansi, Muzzafarpur, Ajmer,

Dhenkanal and Lingasugur were unaware of health insurance schemes. In Bhilai, the Medical Officer shared that 16 FLWs had succumbed to COVID-19, out of which the insurance amount had been received only for two. In Ajmer, an insurance scheme of INR 1 million was explicitly announced for sanitation workers. In Bangalore, as per the district's nodal officer, a compensation of INR 3 million was provided for AWWs and sanitary workers in case of death due to COVID-19.

### Recommendations

In order to minimise the risk of infection to FLWs, during their duties amid a public health emergency, it is essential to provide an adequate supply of PPEs (gloves, surgical masks, hand sanitisers, N95 masks if involved in contact tracing), along with training on appropriate usage during the early phase of the emergency.

The remuneration to FLWs must be reviewed in case of allocation of any additional duties due to a public health emergency/disaster. In addition, psychosocial support, non-monetary incentives, additional transport allowance, and child-care support should be planned. In order to enhance motivation, awards and recognition should also be institutionalised.

For ensuring better uptake of social security and insurance schemes, there is an urgent need to create awareness among FLWs about their entitlements under these schemes and the processes for availing the benefits.

For addressing the social stigmatisation and discrimination of FLWs, a plan for systematic advocacy and communication for building public consciousness must be developed in consultation with community leaders, associations, and ULBs.

### 6.3 Ensure decision making transparency through use of technology and legal reforms to ensure privacy

The use of digital platforms for pro-active sharing and disclosure of information by governments will further strengthen open governance. Easy access to information will ensure seamless trickle-down of verifiable information, thereby restricting the spread of misinformation and rumour mongering, which was experienced during the initial phase of the pandemic. Integration of technology in the ethos of governance needs to be strengthened to encourage open communication channels between citizens and states, thus, promoting public trust in the political decision making.

Further, technologies that enable digitization and spatial analysis should be integrated with the planning processes. There is rich evidence to show the benefits of integrating Geographic Information Systems (GIS) in spatial planning and tracing and tracking COVID-19 positive cases. Geospatial data has been used effectively by WHO, UNICEF and CDC during the outbreak of SARS, Ebola and Zika diseases (Udas, 2020). In the wake of COVID-19, many cities used spatial mapping tools for decision-making to contain the virus spread. New Orleans, one of the US cities hardest hit by the COVID-19 outbreak, could bring down cases through the informed decision making and the officials reported that data has helped drive the result and will be crucial going forward (Wray, 2020). Further, in Wuhan, GIS and big data technology played a crucial role in their fight against the disease; GIS-based strategies were used to identify spatial transmission, prevention and control, allocation of resources, and detection of social sentiment, among other things (Sareen & Singh, 2020). The City of

Philadelphia, which has a long history of using GIS data, has also proved that spatial mapping and analysis were central to its COVID-19 response. Advanced location data will continue to be critical in the next steps to support economic recovery (Wray, 2020).

However, reliance on technology for free dissemination of information, integration of GIS in spatial planning to build in prevention and transmission control strategies comes with a caveat of misuse of data available on open source. Therefore, there is an urgent need to ensure robust data protection and privacy framework before seamless integration of technology and governance.

### **Evidence from the ground (primary and secondary)**

*Use of digital maps and GIS for disease surveillance thereby supporting decision making:* Many large Indian cities, especially the ones covered under the Smart City Mission (SCM) like Pune and Bengaluru, were quick to convert the Integrated Command and Control Centres (ICCCs) created under SCM into “COVID-19 War Rooms”. They used the integrated dashboards to rapidly digitize spatial information, use it to predict disease spread, and undertake a host of disease surveillance activities, including identifying and managing containment zones and buffer zones. These cities also used the dashboard to make real-time information on COVID-19 available to the citizens (Box 8).

Other large cities, which did not have an ICCC level of infrastructure, used available maps and spatial data. For example, Aurangabad used spatial data to demarcate containment zones, planning locations of COVID-19 care centres and other health facilities. However, given that the maps and data were not up-to-date, it hindered their ability to use it as a decision-making tool. This was corroborated by interviews with CBOs, who said that the data was used mostly for communication and not for decision-making.

In smaller cities and towns, where spatial data abilities and infrastructure was absent, the local governments relied more on community networks for information. For instance, Dhenkanal Municipality recorded such shortcomings, and as per Executive Officer, Dhenkanal Municipality, they were able to offset these through the active engagement of CBO's. Parallel non-spatial information systems made available through community-based networks and Front-Line Workers were used extensively in smaller cities and towns such as Ajmer and Muzaffarpur. These sources of information were considered more reliable as the existing databases and maps were in poor shape.

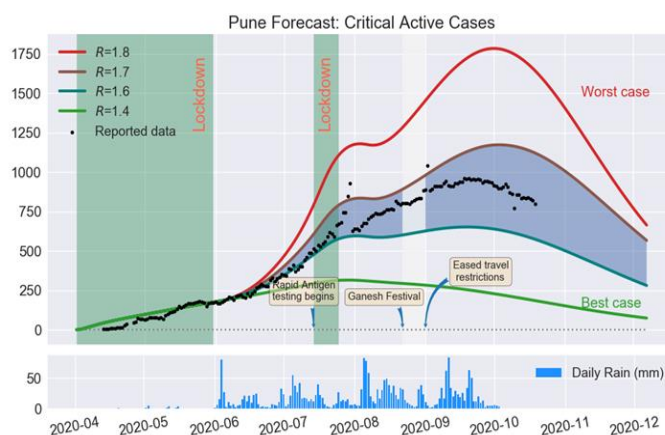
*Ensuring accessibility of information for the citizens:* Inaccurate and dangerous messages proliferated wildly over social media and led to confused, misled, and ill-advised people. The Government of India launched the Aarogya Setu App on 2nd April 2020. While the main aim of the App was to help with contact tracing as it recorded the details of all people the user may have come in contact with and warns the user if any of the contacts tests positive for COVID-19, it was also used to spread awareness about COVID-19 hoping to dispel rumours (Banerjee, 2020). The App also provided information regarding various guidelines issued by the Government of India.

Moreover, district and city governments used various mediums to spread awareness and make information on COVID-19 readily available. District authorities used their respective websites to share awareness information, Standard Operating Procedures (SoPs) and

government orders issued by them from time to time along with daily updates on the number of tests conducted and the number of people testing positive, those recovered, as well as those who succumbed to the disease. Further, toll-free numbers and helplines were also set up in most cities, including Delhi and Pune. In Muzaffarpur, 24X7 medical hotlines were operated under a district-level control room established to provide medical advice or respond to inquiries about COVID-19. In Ajmer, a Public Address (PA) system was used to create awareness on COVID-19. Along with regularly addressing the public about the status of COVID-19 response in Kerala, robots were also used to create awareness about hand hygiene and social distancing.

### **Box 7: Pune's collaborative model for COVID-19 management**

The Pune Knowledge Cluster (PKC) was set up under the Office of the Principal Scientific Adviser to the Government of India to bring together academia, R&D institutions and industry to find cutting edge solutions in the areas of air, water, health and sustainable mobility. In April 2020, as a response to COVID-19, the PKC set up a group comprising physicians, epidemiologists, data scientists and modellers and IT innovators who worked closely with the Pune Municipal Corporation (PMC). Bringing together the big data, AI capacities in the PKC, and the pre-existing GIS capacities of the PMC, the city was able to rapidly digitise information on COVID-19 collected from flu clinics, mobile clinics, hospitals and dispensaries across the city. They could model the data to predict disease spread and conduct timely sero-surveys, which was fed into the disease management decisions in real-time. For example, doctors from the PKC create standard operating procedures, and data scientists analysed real-time data collated by the PMC. Moreover, the dashboard is accessible to the public and has helped in keeping them informed through the pandemic.



Source: (CPR-CSH Workshop, 2020)

*Concerns regarding the use of personal data for population surveillance:* Government authorities have employed digital technologies, particularly mobile and biometric applications, to improve the effectiveness of response and relief measures. Via the Aarogya Setu App, demographic, contact, self-assessment and location of persons infected by COVID-19 or those who have come in contact with the infected person is collected (Sebastian, 2020). The App collects multiple data points for personal and sensitive personal information, which increases privacy risks, unlike other Apps that use only one data point, which is later replaced by a scrubbed device identifier (Sebastian, 2020). However, such surveillance can quickly traverse the blurred line between disease surveillance and population surveillance. Further,

red flags were raised when GoI mandated using Aarogya Setu for public sector employees and subsequently for travel purposes for residents of containment zones. Gradually it spilt over to the frontline staff of private sector undertakings such as Zomato, Swiggy, Urban Company, Grofers, etc., while Flipkart and Amazon recommended it for their delivery staff. Mandating the App when the legal framework for data protection and privacy is in abeyance is a coercive mechanism potentially leading to infringement of right of privacy of individuals.

One of the principles of data privacy is the minimum capture and storage of data. The absence of clear regulations on how to use the data captured, where to store it, for how long to store exposes the citizens to the potential misuse of the data and infringement of their right to privacy.

As the Data Protection Bill 2019 is pending with the Parliament, India does not have a comprehensive and dedicated data protection law (Thaorey, 2019). Some provisions of the Information Technology Act, as amended from time to time, and the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data and or Information Rules, 2011 framed under the IT Act, 2000 deal with the protection of Personal Information and Sensitive Personal Data and Information. However, these are not enough, and there is a need for comprehensive legislation which can deal with informational privacy and its related issues (Thaorey, 2019). The judiciary has shown an attentive inclusive approach in recognising, protecting and conserving the right to privacy as part and parcel of a fundamental right (Thaorey, 2019). The need for comprehensive legislation was also underlined in the Supreme Court's judgment in Justice K. S. Puttaswamy v. Union of India.

### Recommendations

Cities must build their capacity to undertake spatial data and mapping to ensure preparedness for any public health emergency in the future. ULBs should be encouraged and resourced to set up spatial mapping labs, enabling the use of spatial data for planning and decision-making. Cities covered by the SCM that could leverage recently augmented capacities can be considered good practice case studies and their processes, learnings widely shared.

MoHUA should set up a capacity building program specifically for augmenting spatial data collection and analysis capacities in ULBs in partnership with state governments. States should appoint Administrative Training Institutes (ATIs) to prepare training modules and undertake training and capacity building of ULB officials on data collection, mapping and spatial analysis. Training should also be imparted to community organisers, frontline workers, and volunteers to use data and maps.

ULBs should prepare city maps with spatial and non-spatial information regarding critical public facilities, services, population density, jurisdictions, etc. to enable quick decision making and crisis management. Open data systems, many of which were used during the pandemic, should be used to involve tech start-ups and citizen-led data collection/reporting in the city mapping process. Every effort should be made to make this information available to the public to facilitate participatory and localised forms of governance.

The government agencies must ensure regular and timely dissemination of information about their decisions to the people through various platforms such as Mobile Apps, websites,



helplines, social media, mass media, etc. The information must be shared in English, Hindi, and all regional languages to enable that the information reaches everyone across the country.

There is a need to watch out that the apps which are being touted as 'proximity tracing' technologies do not become a method of movement control and lockdown enforcement, thereby inching towards the thin line of population surveillance. There is a need to revisit the Data Protection Bill, 2019 to integrate adequate provisions to protect the right to privacy when data is collected during a public health emergency/pandemic for disease surveillance. The proposed legislation on data protection should ensure high security and encryption of any personal data (including health data) collected and any devices, applications, servers, networks, or services involved in collecting, transmission, processing, and storage. Further, the legislative framework should mandate that the mandatory applications or portals collecting individual data, especially on behalf of the government, should be subject to third-party audits and penetration testing. Developers should publish full details about their security protocols.

#### **6.4 Reform legislative framework for managing public health emergencies and empower local governments to lead relief, response and mitigation**

India's response to the COVID-19 pandemic was backed by invoking the Epidemic Act, 1897 and the Disaster Management Act, 2005.

The Epidemic Act, 1897, is a precolonial legislation that lacks clarity and clear demarcation of authority. It has outdated its scope to deal with compelling situations like the ones being faced during the COVID-19 pandemic. Enough so that according to an order of the Supreme Court, in *Dr. Jerryl Banait v. Union of India (WRIT PETITION (CIVIL) Diary No(s). 10795/2020)*, directing the Government of India to provide necessary police security to doctors and medical staff in hospitals and places where patients who have been diagnosed or where patients suspected to be COVID-19 positive are housed, an ordinance, namely, the Epidemic Diseases (Amendment) Ordinance, 2020 was promulgated to ensure the provision of protection for healthcare personnel.

There has been a long-standing demand for promulgating a public health legislation that is more relevant for the current times. The Public Health (Prevention, Control and Management of Epidemics, Bio-terrorism and Disasters) Bill was introduced in 2017. The Bill proposed to empower state and local authorities to take appropriate actions to tackle public health emergencies like epidemics and bioterrorism. Under the Bill, states and local bodies could take multiple measures, ranging from quarantining people to decontamination of areas, isolation of infects, destruction of animals or birds and surprise inspections during any public health emergency (Dey, 2020). However, the Bill did not receive adequate support in the Parliament and lapsed (Dey, 2020). Other countries in the South Asian region have already enacted specific legislations for prevention and control of infectious diseases, including Bangladesh (Infectious Diseases (Prevention, Control, and Eradication) Act 2018), South Korea (Infectious Diseases Control and Prevention Act, 2009) and Thailand (Communicable Diseases Act, 2015).

The Disaster Management Act, 2005 provides the framework for the institutional response once a disaster is declared. The DMA, 2005 provides a well-defined and somewhat rigid division of roles across the various government tiers, namely, national, state and district. Further, the DMA, 2005 gives prominence to the district government – in the event of a

disaster, the district authority becomes the focal point for coordination and monitoring of the National/State Policy as well as the National, State and District Disaster Management Plans, thereby coordinating all relief and response activities. The DMA, 2005 does not provide much authority to local governments to assess and lead local-level responses. Thus, the local government's powers as institutions of local governance get compromised (EPW Engage, 2020). The DMA, 2005 also does not provide avenues for engagement with Civil Society Organisations and Community Based Organisations (CBOs) which are critical to ensuring an effective response to any public health emergency/disaster at the grassroots level.

The COVID-19 pandemic also brought to light the weak inter-tier coordination mechanisms under the DMA, 2005, which, in many cases, resulted in a delayed response. For instance, even after weeks of invoking DMA, 2005 and issuing multiple Standard Operating Procedures (SoPs) and guidelines, there were cases of disruption of supply chains of essential commodities due to sealed state borders, lack of PPE kits for frontline workers, the mass exodus of migrant labourers, etc. (Luthra & Goswami, 2020).

The present legislative framework, Epidemic Disease Act, 1897 and the DMA, 2005 invoked to respond to pandemic lacked specific provisions required for the prevention, containment and management of a communicable disease such as quarantining measures; restrictions on movement; measures for inspection and control et al.

Public institutions (like hospitals, schools and sports facilities) are valuable infrastructural resources to tackle any public health emergency/disaster. The DMA, 2005 provides the state executive committee and the district administration with authority "to procure the exclusive or preferential use of amenities from any authority or person" {Section 24(h)} and "to identify buildings and places that could be used as relief centres or camps" {Section 30 (xxiv)}. In the current legal framework, the ULBs are subject to the directions of the state government/district authorities and lack the authority to requisition public institutions during a public health emergency/disaster.

### **Evidence from the ground (primary and secondary)**

The urban local governments are critical for undertaking and leading the assessment and response for any disaster or public health emergency. Their jurisdiction area is closest to the ground, and they are best aware of the local context and challenges. They are also well placed to garner support from other tiers of the government (district and state) and civil society (including individuals, institutions and organisations) and the private sector.

Various experiences from the ground during the COVID-19 pandemic have demonstrated that urban local governments have played a critical role in the creation of temporary shelters for migrant workers, creating isolation/quarantine and testing and treatment centres, undertaking measures to control the spread of the disease, and ensuring uninterrupted delivery of essential services including water, sanitation, liquid and solid waste management.

Given the large-scale migration of labour from cities, GoI on 28th March directed states to construct temporary shelters for travelling migrants (PIB, 2020). The state governments, in turn, issued orders to the district administration and ULBs. ULBs led the implementation of the order in cities and towns in close collaboration with NGOs, CSOs and CBOs. In Bengaluru, for example, the Bruhut Bengaluru Mahanagar Palike (BBMP) set up relief camps for migrant labour in public spaces and food and other relief materials were supplied in association with

local NGOs. In Odisha, the state government decided to isolate returnee migrants to avoid community level spread of COVID-19. On the state government's orders, District Collectors and Municipal Commissioners converted empty school and hostel buildings as temporary shelters for migrant labourers (Mallick, 2020).

Secondary research and KIIs also highlight how public institutions and open spaces were used to set up isolation, quarantine and testing and treatment centres. In Jhansi, as per the city's Chief Medical Officer, open spaces on the city's outskirts were used for erecting temporary isolation centres for returnee migrant workers. In Bengaluru, COVID-19 care centres were created in buildings belonging to the Bengaluru Development Authority, Bengaluru Housing Board, apartments constructed by private builders, hostels, government and private sports facilities and commercial buildings. In addition, playgrounds were also used to set up temporary care centres. Similarly, in Delhi, various hostels, hotels and schools were converted into COVID-19 quarantine centres.

ULBs also implemented various initiatives to limit the spread of the disease and ensured that essential services continued without disruption. In Pune, the Pune Municipal Corporation put in place and implemented a protocol for cleaning all Community Toilets (CTs) in slums at least five times a day. The New Delhi Municipal Corporation (NDMC) undertook sanitisation of all public places/streets at least once a day using tankers/vehicles available with the horticulture department and fire brigade, cleaning and sanitisation of CTs and Public Toilets (PTs) in slums at least once a day, sanitisation of all hospitals/quarantine centres and homes of patients placed under isolation twice a day. Further, the NDMC made separate teams for collecting waste from the homes of COVID-19 patients. NDMC also made handwashing facilities available at various places, including markets, toilets, Government offices, etc. In Bengaluru, the Bruhat Bengaluru Mahanagar Palike (BBMP) installed handwashing facilities in every ward for sanitation workers and citizens and in CTs/PTs. The BBMP also deployed separate vehicles for solid waste collection from houses of COVID-19 patients. ULBs were also involved in launching mass awareness campaigns using the frontline sanitary workers' services involved in door-to-door collection of solid waste. Mechanical cleaning of sewers was also undertaken (NIUA, 2020).

## Recommendations

There is an urgent need to promulgate a legislation on Public Health to prevent, control, and manage epidemics, bio-terrorism, and disasters. In September 2020, the Government of India announced its intent to table the National Public Health (Prevention, Control and Management of Epidemics, Bio-terrorism and disasters) Bill. This move is welcome and must be prioritised. The DMA and the proposed Public Health Legislation should be read with each other and invoked co-terminus; therefore, provisions need to be inbuilt for such a harmonious interpretation.

The proposed National Public Health Legislation must enlist specific provisions for quarantine and restricting the movement of any person or class of persons or any object or class of objects suspected to be exposed to any such disease or exposed to any substance; disposal of dead bodies; prohibit any such activity inimical to public health in any area; authorise any officer of the district or local authority to take such measures and for such duration of time, to prevent, control and manage the public health emergency; and for undertaking deratting, disinfection, decontamination, treatment, destruction or disposal of baggage, cargo,

containers, conveyances, goods, postal parcels, human remains, animals, birds or biological substances to remove infection or contamination including vectors and reservoirs of infection et al.

Clarity on roles of the different tiers of the government (including national, state, district and local) and inter-tier coordination mechanisms must be incorporated in the proposed Public Health Legislation and the DMA, 2005 through appropriate amendments.

As institutions of local governance, the ULBs have played a crucial role in providing relief and controlling the spread of COVID-19 and ensuring no disruptions to the essential services in the areas under their jurisdiction. Therefore, there is an urgent need to empower these local institutions with the powers to lead the on-ground assessment and response to any public health emergency through appropriate amendments in the DMA, 2005 and by incorporating specific provisions in the proposed National Public Health Legislation. This should include giving the ULBs power to requisition and convert public institutions into emergency health facilities (such as testing booths, care and treatment centres, and vaccination centres) and relief centres or camps. State governments should develop technical guidelines on retrofitting public institutions for differing temporary uses and the types of services that must be provided. Corresponding training of ULB officials on these Technical Guidelines must also be facilitated. In states where urban local governments are not yet fully empowered, the respective state governments must ensure that devolution is ensured and financial and technical support is provided to allow them to play their role as institutions of local governance effectively.

### **6.5 Strengthen the Disaster Risk Reduction (DRR) Framework to ensure better cognizance of the current social realities alongside integrating provisions for zoonotic diseases**

India has a robust legal framework for disaster management under which National, State, and District Disaster Management Plans are prepared annually to address any impending disaster, including "Biological and Public Health Emergencies". Even though the DM Act 2005 provides a detailed action plan right from the central government to state and district levels, including preparing, implementing, and executing disaster management plans, it did not demarcate each level's responsibilities. Thus, knee jerk and haphazard responses were witnessed on the ground during the pandemic (Luthra & Goswami, 2020). Furthermore, it failed to involve local communities in disaster management practices (EPW Engage, 2020).

The District Disaster Management Plans (DDMPs) do not focus on the poor and the vulnerable. Moreover, the DDMPs are never reviewed by the National Disaster Management Authority (AIDMI, 2020).

The National Disaster Management Plan, 2019 outlines India's disaster risks like earthquakes, floods and river erosion, cyclones and tsunamis, droughts, and landslides and avalanches, specifically in hilly areas. It also mentions disasters and emergencies of chemical, biological, radiological, and nuclear origin. The only reference to epidemics and disease outbreaks is found in the post-disaster scenario and not in the context of them being disasters themselves (Chaturvedi, 2020). It also does not promulgate any specific measures for the control, management and mitigation of infectious zoonotic diseases.

The Disaster Risk Reduction (DRR) framework administered under the National Disaster Management Plan (NDMP), 2019, needs to recognise the current social realities to better

prepare for future pandemics or any public health crisis. In the 21st century, the world has witnessed infectious zoonotic diseases like Ebola, SARS, Avian influenza, MERS, Swine Flu, etc. However, India remained significantly insulated from such epidemics. When COVID-19 struck in the early months of 2020, it brought to the fore the gaping holes in India's Disaster Management framework and the absence of specific provisions for the control, management and mitigation of infectious zoonotic diseases. Thus, while India announced a stringent nationwide lockdown quite early, it was unable to tame the pandemic as the lockdown could help reduce the number of infections for a short period; however, in the absence of sustainable long-term measures, the pandemic resumed its original trajectory (Raju, 2020).

### **Evidence from the ground (Primary and Secondary)**

There have been inadequacies in the Disaster Management Framework itself, including the Biological Disaster Management (BDM) guidelines. While the BDM guidelines state that "central to the success of quarantine will be making available all essential services in the quarantined area", it took the Ministry of Home Affairs five days to issue an order which provided for measures that included adequate arrangements of food for the poor and needy, including migrant workers stranded due to lockdown (Chaturvedi, 2020). While the BDM guidelines provisioned for suspension of economic activity to ensure social distancing, a measure strictly implemented as part of the lockdown, it did not focus on the repercussions of the same, especially on the economically vulnerable, including migrant workers (Chaturvedi, 2020).

To add to the challenges, the emergence of COVID-19 in India has raised the alarm and exposed the loopholes in the public healthcare sphere and the allied legal framework on risk communication and crisis management. The government had enforced the lockdown under the colonial Epidemic Disease Act, 1897 and the more recent National Disaster Management Act, 2005. However, both these acts do not elaborate explicitly on crisis communications, one of the most critical crises management tools in such times (Mondkar, 2021). Moreover, while the NDPM 2019 lays out the provisions to ensure facilities and infrastructure for implementing adequate access of information to communities at risk, the linguistic component is least considered in India's NDMP (Prabhakaran, Krishna, Kumar, & Raja, 2020). With about 736 districts in 28 states and eight union territories and varied shades of dialects and cultures within the states, crisis communication in India becomes a complex exercise (Mondkar, 2021). This led to a surge in rumours, hoaxes, and misinformation regarding the aetiology, outcomes, prevention, and cure of the disease. The spread of misinformation was masking healthy behaviours and promoting erroneous practices that increase the virus's spread and ultimately result in poor physical and mental health outcomes among individuals. Inaccurate information spreads widely and at speed, making it more difficult for the public to identify verified facts and advice from trusted sources.

Community participation emerged as the key to managing the pandemic, from compliance with lockdown to the steps needed to be taken as the country eased the restrictions, to community support through volunteering. The pandemic also spotlighted the involvement of civil societies. However, the Disaster Management Plan entirely excludes the involvement of local communities in disaster management. No disaster can be dealt with effectively only through administrative set-up, alienating the community as a whole (EPW Engage, 2020). Odisha is one of the pioneering states in institutionalising community-based preparation during disasters and empowering the local *sarpanches*, building its skilled healthcare force through



community participation, and protecting the vulnerable groups has led to reduced disease burden with low mortality rates (MoHFW, GoI, 2020).

## Recommendations

In the above background, the DRR framework must be strengthened to become more relevant and inclusive, promote universal access to basic infrastructure and involve local communities and their organisations. The DRR framework should lay out the roles of Centre, States and ULBs with absolute clarity on jurisdictional coverage, command over assets and autonomy in decision making while implementing the Disaster Management Plan. The DRR framework should highlight the functional integration between the NDMA and the Ministries responsible for WASH, livelihood, public health, urban development, housing, and poverty alleviation.

Further, the Disaster Management Plans should ensure mandatory inclusion of the provisions for identifying vulnerable populations/communities/settlements, identifying groups requiring special attention, and conducting an audit of equipment and human resource requirements, as laid out in the DRR framework their enforcement through DMA, 2005. The Disaster Management Plans should also include a comprehensive and reasoned lockdown strategy, taking into account disruptions to supply lines, essential and non-essential services, human migration, relief and food support and all non-health services and utilities. The DRR framework should be revised to include a detailed provision to ensure economic sustenance, such as employment generation and cash transfer schemes, etc. The Disaster Management Plan should be modified to include a strategy for designing and implementing well-coordinated surveillance, identification, contact-tracing, quarantine, isolation, testing strategy and treatment. The Finance Commission should ensure sufficient funds for the state for mitigation, capacity building and rehabilitation rather than allocating funds for relief measures.

Further, there is a need to develop a comprehensive communication strategy for public health emergencies and disasters that can be put into motion when such an event occurs. The communication strategy must include details on the key target audiences, communication messages about the positive behaviours to be instilled among the communities and individuals, potential communication mediums and channels that can be used for disseminating the information. The communication campaign must be rolled out in English, Hindi, and all regional languages to allow coverage of all affected/potentially affected population groups. The messaging must be specific for different population groups, including men, women, children, the elderly, people with comorbidities, the differently-abled, etc. The communication strategy must also have the Frontline Workers, including FLHWs and sanitary workers, as a key target audience to ensure the adoption of positive behaviours and practices. Strategic partnerships must be forged between mass media, healthcare organisations, community-based organisations, and other essential stakeholders to launch platforms for disseminating authentic and verified messages. Advanced technologies like natural language processing or data mining approaches should be applied to detect and remove online content with no scientific basis from all social media platforms. ‘

Community involvement can play a crucial role in planning local-level actions in collaboration with local bodies to identify vulnerable households, provide support to the elderly and those in quarantine, develop better communication strategies and help in contact tracing, as experienced during COVID-19. Hence, there DRR Framework should be revisited to include a clear demarcation of the role the local government can play with the engagement of CBOs.

## 7. Attenuate Formal/Informal Categories to Universalise Access

The COVID-19 pandemic has highlighted one of the most crucial vulnerabilities of the Indian economy; its large informal sector, the state of the labours engaged and their living conditions. The urban informal sector comprises domestic workers, home-based workers, street vendors, and waste pickers. It lacks legal and economic security in terms of social protection and worker's rights; hence the informal worker's experience is highly vulnerable. With the spread of COVID-19, social distancing and maintenance of proper hygiene have become significant, and the government has several issued guidelines to this effect. However, while these guidelines may seem simple enough to implement for a large proportion of the formal sector workforce, they are exclusionary towards informal sector workers as they can't observe these measures due to the nature of their livelihood and their socio-economic conditions (SEWA, 2020).

According to an estimate by the International Labour Organisation (ILO), globally, nearly 400 million informal sector workers have sunk deeper into poverty amidst this pandemic due to job loss (ILO, 2020). India witnessed a mass exodus of migrant labourers from the cities to their respective villages following strict lockdown. It also brought to light that urban India is highly dependent on the informal workforce that migrates to cities in search of livelihood and contributes significantly to our cities' building. They suffer from a lack of savings, housing, access to healthcare and, in most cases, access to welfare schemes run by the government (Deb, 2020). Hence, there is a need for the government to ensure that the informal workforce has access to affordable housing, basic services like water and sanitation, and health care to attenuate the gap between formal and informal.

The Census identifies 'migrants' as those enumerated in a place other than Birth Place or have changed their Usual Place of Residence. To qualify as a migrant for enumeration, a person should have lived in the place of enumeration for six months or more. But that is rarely the case, as migrant workers keep moving in under six months due to their jobs' nature (Sharma A. , 2020). The definition needs to be more inclusive to include all seasonal migrants who migrate during a particular season or for a brief period. These migrants also get excluded from public programmes as such programs usually rely on poverty thresholds, leaving behind informal workers who don't meet these criteria (Bussolo, Sharma, & Timmer, 2020). Hence, the policymakers also need to loosen the conditions for eligibility and ensure social security coverage for all informal employment in the unorganised sector. Adequate awareness generation around these social welfare schemes is also critical to ensure uptake.

The hierarchy between formal and informal has always existed in the Indian context, with informal being subordinate to the formal and has uniformly reflected among urban service providers and urban settlements (De, 2020). While the well-served areas emerged as formal areas of residence, unserved areas came out as informal areas or slums. While joblessness due to lockdown impacted the informal sector workers the most, housing shortage, overcrowding, and lack of access to basic services and amenities intensified the risk of spreading Covid-19 infection for slums and informal settlement (Dasgupta, Mukherjee, Agarwal, 2020). In India, despite recognising the importance of basic services to the urban poor as an important agenda in various policies and urban planning regulations, the right to basic services remains a distant dream for a large section of the urban poor, especially those living in slums. While the construction of new houses under central government schemes has

accelerated in recent years, there has been limited attention given to holistic spatial planning resulting in houses without the allied basic infrastructure (Dasgupta, Das, Mukherjee, & Sarkar, 2020). Hence, there is a need for the government to shift focus from individual house construction and encourage slum upgradation instead.

### **7.1 Labour laws should categorically earmark non-negotiable aspects, which cannot be amended even in emergencies**

Labour falls under the Concurrent List of the Constitution of India; therefore, both the Parliament and State Legislatures can make laws regarding labour. Presently, there are Central and State laws regulating various aspects of labour, such as the resolution of industrial disputes, working conditions, social security, and wages. States regulate labour by bypassing their laws or amending central labour laws to make them applicable to their state (Tiwari & Ram, State Legislative Brief, 2020).

The Indian economy suffered a setback during the lockdown, which was imposed to control the spread of COVID-19. Many states amended the existing labour laws in their respective jurisdictions to revive the economy. In early April, some states, including Gujarat, Punjab, Himachal Pradesh, Uttar Pradesh, Rajasthan and Madhya Pradesh, amended the provisions of the Factories Act, 1948 by extending working hours from 8 to 12 in a day and from 48 to 72 in a week and necessitated such amendments to accommodate the requirements for physical distancing. Similarly, State governments of Odisha, Goa and Bihar also issued notifications to this effect. While some states allowed the extended hours to be paid at the statutory overtime rate (double), others (Uttar Pradesh and Gujarat) allowed the extended hours to be paid at regular rates (Box 8)

Hence, to attract investment and provide flexibility to investors, the Governments of Uttar Pradesh, Madhya Pradesh and Gujarat have sought exemptions from the provisions of labour laws, including statutory inspections and submission of multiple returns, for three years, 1,000 days and 1,200 days, respectively. Significantly, these ordinances would suspend provisions of the Trade Union Act 1926 and the Industrial Disputes Act 1947, which recognise the collective rights of representation and protect workers from arbitrary dismissal such as retrenchment or lay off (Mander & Verma, 2020). These ordinances also take away the mechanism for the resolution of industrial disputes.

### **Evidence from the ground (primary and secondary sources)**

In Bengaluru, provisions of the Factories Act, 1948 were amended to increase the daily and weekly working hours to 10 hours and 60 hours, respectively, for three months (from 22-05-2020 to 21-08-2020). The state government justified this as an attempt to help revive business and the economy, but in the process, worker's rights were compromised.

**Box 8: Amending Labour laws on the pretext of revival of the economy – The case of Uttar Pradesh**

The Governor of Uttar Pradesh passed the 'Uttar Pradesh Temporary Exemption from Certain Labour Laws Ordinance, 2020' on 8th May 2020 to suspend various labour laws in the state for factories and establishments engaged in the manufacturing process, for three years (**Ram, 2020**). The ordinance allowed the relaxation of all labour laws, barring three laws (related to abolishing bonded labour, ex gratia to workers in case of work-related diseases and disabilities, and timely wage payments). The justification provided for the ordinance was "to promote business and industry which has slowed due to COVID-19". All labour laws related to labour unions, settling work disputes, regulations for working conditions, contracts, etc. were to remain suspended for three years under this ordinance (**PRS, 2020**). However, even before the ordinance could receive the President's assent, a Public Interest Litigation (PIL) was filed in the Allahabad High Court and pursuant to that order, the entire ordinance was withdrawn.

Under Section 5 of the Factory Act, 1948, state governments can **grant exemption** to establishments from the provisions of the Act in case of emergencies. Leveraging this, the UP government argued that the outbreak of COVID-19 had "shattered" the economy, migrants had returned to the state in large numbers, and there was widespread unemployment. To provide a boost to industries and attract investments, the state government passed the **Factories (Uttar Pradesh Amendment) Act, 2020**. According to the Governor's notification, all factories registered under the Factories Act, 1948 shall be exempted from provisions relating to weekly hours, daily hours, overtime, intervals for rest, etc., of adult workers for three months (from 20th April till 19th July 2020). However, the notification also provided that:

1. No adult worker shall be allowed to work in a factory for more than twelve hours any day and Seventy-two hours any week.
2. Working hours will be fixed so that the adult worker does not work for more than six hours without an interval of at least half an hour.
3. Wages shall be in proportion to the existing wages to adjust for additional work hours.

**Recommendations**

Labour laws are welfare socio-economic legislation to protect the vulnerable and guarantee them rights. This genre of suspension in the wake of crises to further the capitalist interest may put the vulnerable worker community in a highly exploitative position. Suspension or relaxation of the established international norms of labour legislations exposes this already vulnerable population to more risks and perils. Planning a program of economic revival and employment generation without compromising workers' rights and working conditions is the need of the hour. The Labour laws should earmark categorically non-negotiable aspects, which cannot be amended by the States, even in emergencies. Amendments, if necessary, should adhere to the available checklists and solicit public opinion on amendments likely to have a socio-economic impact.

**7.2 Ensure social security coverage for workers in the unorganised sector through simplification procedures and improved awareness**

The heterogeneity of the Indian labour market means that workers are situated in a wide range of employment arrangements – from own account self-employed workers to helpers in household enterprises, from casual workers to those in different forms of regular wage work. Among those that are in regular wage salaried work, 50 per cent were without any social

security benefits, according to the Periodic Labour Force Survey (PLFS), 2017- 18 conducted by the Ministry of Statistics and Program Implementation (MOSPI), GoI.

Social security is a basic set of benefits afforded to a worker to enable access to healthcare and income security, especially during old age; in case of unemployment, sickness, invalidity, and injury at work, maternity or a loss of the primary breadwinner (widow benefit). For workers in organised, registered enterprises, health and pension benefits (e.g., Employers Provident Fund and Employers State Insurance Scheme) are linked to employment. But for workers in informal employment, who comprise a significant proportion of self-employed workers, they are responsible for accessing benefits by enrolling themselves into various government schemes. Most cannot avail of the benefits as they lack adequate information about these schemes, and they find the registration process tedious.

Moreover, targeting beneficiaries is often exclusionary for informal workers who do not have ration card' or other documents as domicile proof. For example, in the Pradhan Mantri Matru Vandana Yojana (PMMVY), the application process is cumbersome and exclusionary. The scheme has three instalments, and for each instalment, the beneficiary needs to fill-up a separate form. Along with the form, the beneficiary needs to submit a host of documents (including a copy of the mother-child protection card, Aadhaar card, husband's Aadhaar card, and the details of a bank account linked to her Aadhaar number) (Priya, 2018). There exist a vast information gap amongst the Anganwadi workers (AWWs) on the schemes, which includes a cut-off point for submission of applications, course of action in the case of a miscarriage, direct registration despite having an Aadhaar card (Falcao, Sachin, & Painkra, 2019). Furthermore, beneficiaries often face payment delays. Both non-payment and chronic delays in payment of benefits make AWWs reluctant to encourage uptake of PMMVY (Falcao, Sachin, & Painkra, 2019). The much-touted Pradhan Mantri Jan Dhan Yojana (PMJDY) also has some barriers that limit uptake – in addition to linking their Aadhaar card with their bank accounts; the beneficiaries must also open a Jan Dhan account. The awareness is limited. Additionally, around 60 million Jan Dhan accounts were inactive as of July 2018 (Kapil, 2020).

The fallacies in implementing welfare schemes in the times of their utmost need only heighten a need for their over-hauling. The over-hauling must be horizontal and cross-sectional through decentralisation to meet the requirements of migrant labour in different sectors across cities. It should be vertical, taking into account the rural-urban spread of family members of the migrant labour. This line of reasoning underscores the need to make cities more inclusive for migrant labour.

Universal social security is not within immediate reach for India. India's low tax to Gross Domestic Product (GDP) ratio, which has decreased further in the wake of the COVID-19 pandemic, makes it challenging to finance a universal system. Yet, the government can work out an iterative plan to provide basic benefits to the most vulnerable, with others opting into the system through contributions.

### **Evidence from the ground (primary and secondary sources)**

The pandemic indeed became a litmus test for the efficacy of the existing welfare schemes and the institutions involved in their delivery. The migrant crisis exacerbated the crippling effects of the pandemic on the economy, loss of livelihoods of millions of informal workers in urban areas and the failure of existing welfare support systems in their places of work. Two of the biggest welfare support failures were in terms of food security and employment guarantee.



The impact of COVID-19 on the labour force employed without any social security benefits and on those engaged in unorganised sectors are highlighted in section 4, specifically for select countries of SA in sub-section 4.3 and 4.4.

The fact that informal workers cannot avail the existing welfare schemes due to the absence of documents to serve as "proof of residence" was corroborated by the interviews across cities. A domestic worker from Bhubaneswar shared that despite her family's residence in Bhubaneswar for several years, they lack a ration card. Because of the lack of documents such as rent agreements and other residential proofs and, hence, they could not avail ration during the lockdown when both she and her husband had been laid off their work. Similar responses were recorded from slum residents in Delhi who had no ration card in the state, and hence no ration was available to them. According to Aajevika Bureau, an Organisation that works with migrant labour, there is a need to ease the norms regarding local domicile proof for migrant workers, enabling them to benefit through social welfare schemes.

While the Government of India launched the "One Nation One Ration Card Scheme" in 2019 for ensuring portability of benefits under the National Food Security Act (NFSA), between states, it requires migrant workers to be on one ration card list (PRS, 2020). According to Aajevika Bureau, given that migrant workers are highly mobile and keep on moving between their village and city/ town, their workplace, they are reluctant to get their names removed from the village ration card list. The policies, thus, must be cognizant of the multi-location lives of migrant workers and make provisions that enable them to access entitlements regardless of the number of years they have been living in the city.

After the outbreak of the COVID-19 pandemic, many states (like Delhi, Kerala, West Bengal, and Uttar Pradesh) announced temporary ration cards. In Delhi, between April to June, 334,000 (Dabas, 2020) migrant workers applied for temporary ration card to get 2kg of rice, 3kg of wheat and 1kg of gram every month. This insinuates that many workers did not have ration cards despite the One Nation One Ration Scheme. According to Aajevika Bureau, regardless of the government's intent, very few people benefitted from the temporary ration card schemes. In their opinion, while the mechanism put in place at the district level for registering migrant workers and linking the same to the Aadhar card was successful to some extent, the last mile connectivity was a challenge. The mechanism for delivering food grains through the ration shop dealer did not yield the desired results as the onus of contacting and informing the migrant worker about the available food grain was placed on the local ration shop dealer. It was challenging for the ration shop dealer to actively call up migrant workers, and thus most never received a call.

The KIIs also indicated that most informal employment workers received (or availed) little government assistance. The main barrier to accessing the benefits under PMJDY was that they needed a Jan Dhan bank account. Beneficiaries with an Aadhaar linked PMJDY account were able to receive Direct Benefit Transfers (DBTs) during the lockdown. In contrast, others who didn't have a PMJDY account were unable to do so.

## Recommendations

There is an urgent need to simplify the registration process for social welfare schemes to ensure that the informal employment workers can register and avail the benefits. As mentioned above, many migrant workers in urban areas, irrespective of the nature of their informal

employment (whether daily wage-earning or short-term contract or even annual contracts), often lacked ration cards to their names in their place of work. The social security coverage and welfare benefits must be made portable to ensure that benefits can be made available irrespective of whether they have documents as proof of their residence in cities/towns. Further strengthening of systems so that all social security schemes are transferred directly to individual accounts will make them more accessible and less susceptible to leakage.

Inputs must accompany the changes mentioned above to create awareness among potential beneficiaries on the existing social protection schemes. An Information, Education and Communication (IEC) portal will create awareness on livelihood and social protection schemes and any relief packages announced during an emergency (like the COVID-19). Also, government and civil society partners must explore iterative paths to develop a social security framework to provide social protection to income-based disadvantaged groups. It is critical to support the meaningful engagement of informal workers in the design of social protection schemes.

### **7.3 Augment rental housing for migrants**

About one-third of urban India depends on rental housing, most of which is supplied informally (about 75 per cent) and is often the only option available for the poor and migrants in the city. Rental housing is important for migrants because it allows them to relocate to places with better economic opportunities without high costs. Financially resourceful migrants can afford good quality rental housing but poor migrants, many of whom migrate for a shorter duration, rely on low-quality housing in slums, informal settlements. Most of these migrants do not have access to basic amenities like water and sanitation. A study of the living conditions of migrants in an informal settlement in Gurgaon reveals instances of inadequate ventilation, lack of sanitation and conditions of crowding in such tenements (Naik, 2019). They often compromise on their living conditions to save money or better jobs (Naik, 2015). Numerous cyclical migrants, for whom housing remains unaffordable even in slums and squatter settlements, often opt for housing within their workplace where they are exposed to workplace hazards and are also subjected to a higher degree of exploitation from the employer (Sugathan & Jayaram, 2018). When government of India announced a complete lockdown on 24th March 2020 for 21 days, many of the migrants, who were employed in informal jobs and were living in rental houses in slums and informal settlements, lost their livelihood and could no longer sustain themselves in the city. As a result, many migrants and urban poor started going back to their villages and towns. Along with a shortage of food and ration, the inability to pay rent and poor living conditions contributed to the decision of migrants to go back.

### **Evidence from the ground (primary and secondary sources)**

From Press Scan Analysis and KIIs conducted by us, the plight of migrants emerged as one of the most critical issues during the pandemic. Many studies and reports also highlighted the plight of migrants. Aajeevika Bureau, in a study of migrant workers in Ahmedabad and Surat, found that a large portion of migrant workers who lived on the work site lost both their livelihood and housing and were forced to go back to their villages. As per a study by the Housing and Land Rights Network (HLRN), nearly 75 per cent of the migrant workers who returned to their villages during lockdown lived in rented rooms in low-income housing or tenements 10 per cent lived in jhuggi or slum-like settlements. Further, about 12 per cent of the respondents indicated a direct loss of housing (including through evictions by homeowners) as one of the main reasons for leaving Delhi during the lockdown (HLRN, 2020). In Bengaluru construction

workers were affected during the lockdown as they lived in the construction sites closed during the lockdown. In a few cases, as in Lingasugur, our discussions with construction workers revealed that their contractor allowed them to stay in the building under construction during the lockdown. Apart from migrants and urban poor, many people working in the health care and sanitation sectors living in rental housing also faced evictions. The government was forced to pass an order-making prohibiting eviction threats to health care professionals living in rental housing.

To address this issue, the Ministry of Home Affairs (MHA) issued an order on 29th March 2020 asking landlords "to provide a moratorium on rent for a month" and restrained them "from forcing labour (and students) to vacate their premises in case they fail to pay rent". Some other states and districts like Jhansi and Delhi also issued a notice to the same effect. However, studies by Aajeevika Bureau suggest that there is limited evidence to show that the policy was enforced. Although Community Based Organisations (CBOs) in few cities like Delhi and Bhilai reported that rents were either waived or deferred by the landlords in most places, this was not the case. In response to a plea for waiving rent, Supreme Court said that the "apex court cannot implement the orders of the government and that a helpline to monitor the situation exists and the aggrieved can approach the authorities concerned through it" (Economic Times, 2020). The court also noted that many landlords are also dependent on the income from renting, and it will not be fair to them.

Although the government could not prevent an exodus of migrants, many of them took steps to provide immediate relief by providing food and shelters. The urban local bodies in close collaboration with Non-Governmental Organisations (NGOs), Civil Society Organisations (CSOs) and CBOs to provide temporary shelters for migrants. In Bengaluru, for example, the Bruhut Bengaluru Mahanagar Palike (BBMP) set up relief camps for migrant labour in public spaces such as the National College Grounds and supplied food and other relief material in support with NGOs. The local corporator shared that while many homeless people came to stay in these relief camps. As per the District Nodal Officer in Bhilai, government community halls were converted into "rainbaseras" (shelter for the homeless) and provided shelter to the migrants. Homeless and needy families were identified and provided emergency food and relief material. In Delhi and Odisha, school and hostel buildings were used as a temporary shelter (Box 9). In Maharashtra, 16 hostels used for Haj pilgrims was also used as temporary shelters.

#### **Box 9: Findings from the Press Scan**

The Delhi government decided to convert public schools into temporary shelter homes for people, mainly migrants, during the coronavirus lockdown. The state government also announced that it would provide free food in these shelters (New Indian Express, 2020).

Taking cognizance of the thousands of migrant labourers returning to the state following the nationwide lockdown, the Odisha government decided to keep them at isolated places to avoid the spread of COVID-19. All the district collectors and municipal commissioners used the school and hostel buildings as temporary shelters to house the migrant labourers in their districts and municipal corporations (Mallick, 2020).

## Recommendation

In response to the migration crisis brought on by the COVID-19 related lockdown, GoI announced the Affordable Rental Housing Complexes Scheme under Pradhan Mantri Awas Yojana – Urban (PMAY-U) to enable conversion of un-occupied public housing stock into ARHCs managed by the private sector (**Error! Reference source not found.**). **Error! Reference source not found.** However, this approach may not fully address the existing challenges. Most migrants are dependent on the informal rental housing market and subsistence landlords to supply low-cost rental housing and flexibility. This design of the scheme needs to recognise small landlords' role in providing rental housing for the poor and migrants.

Low returns on investment and lengthy dispute resolution mechanism discourage many people from investing in rental housing or renting their house. Formal dispute resolution mechanisms for rental disputes are lengthy and impose prohibiting costs on both parties. Therefore, many landlords prefer to keep their houses vacant rather than rent them out. The Central government should encourage state governments to modify their rental laws to allow for arbitration in landlord-tenant dispute for effective resolution in addition to forming a separate rental court for resolving disputes. India has one of the lowest rental yields globally, and therefore, it receives meagre investment from institutional investors and households. The government of India has already announced tax incentives on investment in ARHC and can extend similar tax incentive to households willing to invest in rental housing. The housing sector has a multiplier effect on the overall economy; thus, any revenue loss owing to tax rebates can be compensated by increased investment in the construction sector, the second-largest employer in the country.

### Box 10: ARHC Scheme under MoHUA, GoI

|        |                                                                                                                                                                                                                                                                                                                                                                                       |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| What   | Affordable Rental Housing Complexes (ARHCs) as a Sub-scheme under Pradhan Mantri Awas Yojana- Urban (PMAY-U) to provide affordable rental housing to urban migrants/ poor, close to their workplace. It aims to create a conducive ecosystem for Public/ Private Entities to leverage investment in rental housing                                                                    |
| Who    | Beneficiaries for ARHCs will be varied groups of urban migrants/ poor from EWS/ LIG categories including industrial & construction workers, migrants working with market/ trade associations, educational/ health institutions, hospitality sector, long-term tourists/ visitors, students etc.                                                                                       |
| When   | ARHCs to be considered till PMAY (U) Mission period i.e., March 2022.                                                                                                                                                                                                                                                                                                                 |
| Where  | To be implemented in all Statutory Towns, Notified Planning Areas and areas under Special Area/ Development Authorities/ Industrial Development Authorities                                                                                                                                                                                                                           |
| How    | Model-1: Utilising existing Government funded vacant houses to convert into ARHCs through Public Private Partnership (PPP) or by Public Agencies. (75,000 Govt. funded existing houses will be converted as ARHCs)<br><br>Model-2: Construction, Operation & Maintenance of ARHCs by Public/ Private Entities on their own available vacant land 40,000 DUs & 180,000 Dormitory Beds. |
| Status | Government has identified 130,000 government funded vacant houses for ARHC and out of which 1,700 houses have been allocated in Chandigarh. All states, except West Bengal, Goa, Sikkim, J&K and Ladakh, have signed Memorandum of Agreement for implementing ARHC.                                                                                                                   |

#### **7.4 Enabling special provisions for street vendors through earmarking street vending zones and integrating safety and hygiene practices**

As per conservative estimates, 8 million workers in India are street vendors. (Unni, 2020). However, other studies estimate that there are around 10 million street vendors in India (Bhowmik, 2005). Street vendors often work in non-designated vending zones under constant fear of being harassed and evicted.

Street vending and retail located in *bazaars*, *haats* and a variety of natural markets are vital livelihood sources for the urban poor and instrumental in providing a variety of goods and commodities to urban residents. These markets are important in urban centres' public life, particularly in small towns, where planned markets are often absent or inadequate. These markets are often overcrowded and lack basic amenities.

The Street Vendors Act, 2005 heralded the advent of participatory mechanisms to resolve legality, hygiene, and spatial management to protect informal livelihoods in ways that enhanced public life in Indian cities. More recently, the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 enabled very crucial street vending provisions. Some of those include Town Vending Committee to survey all vendors in the areas under its jurisdiction once every five years; demarcate 'vending zone' based on 'traditional natural markets' and other associated mechanisms; and ensure all street vendors are allocated spaces within these vending zones.

#### **Evidence from the ground (primary and secondary sources)**

The Press Scan Analysis, undertaken as a part of this study, indicates that street vendors were one of the groups hugely impacted by Covid-19. Indian media highlighted the street vendors' challenges, including loss of livelihood due to the lockdown. The topic of "street vending" garnered 80% of the Indian media coverage.

The COVID-19 induced lockdown led to the closure of all markets and vending sites, deprived street vendors of livelihoods and income. They being sites of spontaneous intermingling made street retail emerged as sites for the disease's potential spread. Though most restrictions were removed, albeit gradually after the lockdown, some curbs continued to remain related to street trade / informal vending. In some cities like Delhi, a few weeks after the national lockdown, the government eased restrictions and vendors dealing in essential goods were permitted to vend. In Dhenkanal, a Sabji Haat (vegetable market) was started in a playground, and the market was functional from 7 am to 2 pm. In Tripura, to ensure sanitisation – customers entering markets were asked to wash their hand and walk through a 'disinfection tunnel' (PIB, 2020). In Bangladesh, as most food markets are congested and people cannot maintain social distance while moving through these markets, posing a risk of infection, the Government on Local Authorities shifted all food markets to the nearest open grounds (TBS Report, 2020).

While curbs were lifted and business resumed, it is critical to note that the cost of doing business went up significantly due to disruption of the supply chain and increased travel costs. Street vendors in Bhubaneswar and Jhansi shared that it was difficult to source vegetables and fruits from the mandi (wholesale markets) due to supply chain disruptions. Street vendors operate with small working capital, and their earnings diminished due to supply chain disruptions and low sales due to customer hesitancy. In Bhubaneswar, vegetable vendors



and food stall owners from the Bhubaneswar Municipal Corporation's vending zones shared a decline in business to half the pre-COVID levels. The same sentiment was shared by street vendors across most cities/towns covered by this research.

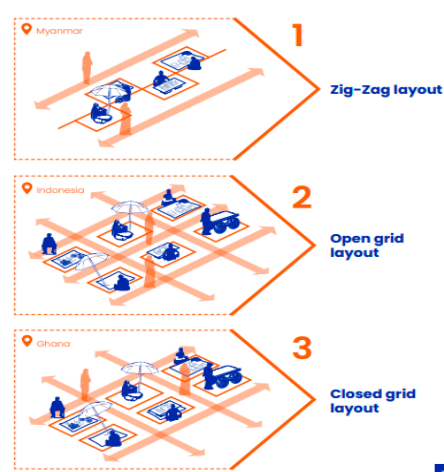
Given the low entry barrier, the post lockdown phase saw many daily wage workers across Malerkotla, Bhubaneswar and Bhilai taking up street vending, selling vegetables and other in-demand products such as cotton masks and sanitisers.

To address the problems being faced by street vendors, the Ministry of Housing and Urban Affairs (MoHUA) launched the Pradhan Mantri Street Vendor's Atmanirbhar Nidhi (PM SVANidhi), which offered collateral-free working capital loans of up to INR 10,000 for one year. Street vendors found it challenging to access the credit facility because it required them to be registered with the respective ULBs, which a vast majority were not. The scheme's awareness was found reasonably good in designated vending zones, as was the case in Bhubaneswar. Further, the Bhubaneswar Municipal Corporation provided one-time financial assistance of INR 3,000 to all registered vendors. Some narratives from street vendors were that cash transfers would have been more useful than a credit facility, given that limited demand for their goods would be challenging to pay back the loan.

Street markets have also been sites of harassment during the lockdown. The National Association of Street Vendors of India (NASVI) pointed out that during the lockdown, there were incidents of police beating street vendors for going out and seized their carts; this has reportedly continued even after the curbs were lifted (Thomson Reuters Foundation, 2020).

Cities undertook some innovations, such as, in Ahmedabad, Self-Employed Women's Association (SEWA) collaborated with the Municipal Corporation of Ahmedabad to deliver "Vegetables on Wheels" by using electric rickshaws. The innovative initiative brought together informal food sellers and informal transport drivers to provide an essential food security service (Chen, 2020). In Delhi, two pilot projects were implemented in central and east Delhi in September 2020 to demonstrate social distancing strategies in weekly markets. These on-site design-led tactical interventions involved vendors and helped generate simple, inexpensive solutions to enable a safe re-opening of markets (Social Design Collaboration, 2020).

**Figure 7: Participatory interventions to improve vending spaces**



## Recommendations

Identification of street vendors is the first step towards improving their access to government schemes and benefits, which can help improve their income and standard of living. Urban Local Bodies, thus, need to fast track the survey of vendors and ensure their registration. Simultaneously, there is a need to develop IEC plans to ensure awareness of the PM SVANidhi scheme with a special focus on enrollment.

Street vending zones limit their holding capacities, but having access to designated spaces for street vending makes street vendors work without fear of harassment and eviction. There

is a need to integrate street vending and natural markets into the existing spatial planning framework. Adequate space must be earmarked for bazaars, haats and other natural markets in Master Plans, Zonal Plans and Local Area Development Plans. Existing and historic natural markets that are still in popular use must be adequately integrated. Demarcation of vending zones should be visible and accessible - preferably close to sites where vending is/was occurring in the city. Where vending activity only occurs at certain times (like some days of a week or some event), cities should create special vending zones where temporary commercial use is permitted at specified times. This should be supported by adequate arrangements for rerouting traffic, alternate parking, etc., in consultation with police and traffic departments. Small towns, where the reliance on street-based informal retail is high but planning capacities are low, should be supported in planning for such spaces through technical assistance.

Besides, targeted efforts are required to ensure effective management of vending zones to ensure safety and hygiene practices. There is a need to ensure representatives from the street vending community in decision-making around planning and managing vending zones, haats, bazars and natural markets. ULBs must guarantee that Town Vending Committees (TVCs) are functional and licenses are issued to street vendors as per the Street

As per the Press Scan Analysis the term “sanitation” garnered 33% of the global news, 19% in South Asian and 15% in Indian news coverage. Water, on the other hand received 29% coverage in the global news, 17% in South Asia and 14% in India.

Vendors Act 2014 to avoid police harassment and eviction. ULB/TVC should mobilise vendors to follow social distancing, practice positive hygiene practices and ensure the overall cleanliness of these markets and public spaces. ULB/TVC should also ensure adequate infrastructure creation, including handwashing stations, etc. ULB should undertake IEC campaigns for awareness generation among the public about hand hygiene and the frequently touched surfaces' hygiene. These should aim to induce behavioural changes to prevent littering and spitting in public spaces.

### **7.5 Prioritising upgradation of slums/informal settlements and providing in-house water supply and sanitation services as part of "build back better" strategy**

Majority of slums in India are characterised by high densities, overcrowding, poor ventilation, limited access to water and sanitation services, which severely constrained the ability of the residents to adopt COVID-19 preventive measures such as social distancing and regular hand washing. This left the slum dwellers at greater risk of COVID-19 as indicated in section 4 above.

According to the World Bank, close to 100 million people live in slums in India, with densities ranging from 44,000 persons per square km in Dharavi, Mumbai, to 125,000 persons per square km in Rasalpoora, Hyderabad (Dasgupta, Das, Mukherjee, & Sarkar, 2020). Many slum residents share rooms with three or more individuals, which indicates inherent overcrowding in slums (Besra, Mishra, Bramhankar, & Singh, 2020). Along with overcrowding, 60 per cent of residents rely on a shared water source, and nearly 40 per cent do not have access to both a toilet and a bathroom within their house which makes regular hand washing very difficult. Many slums also do not have access to soaps for regular hand washing (Dasgupta, Mukherjee, Agarwal, 2020). In Maharashtra, studies have reported that 60% of the

slum households did not have a private toilet facility inside their homes (Das, et al., 2020). Field research from a slum in Delhi reveals that there were 3 Community Toilet (CT) complexes, each with 20 seats, catering to 50,000 people (Upadhyay A. , 2020). Extreme cases include slums like Dharavi in Mumbai, where estimates suggest that there is only one toilet seat per 1,440 people (Watkins, 2006).

As slums are often informal and unplanned settlements, securing formal, individual water and sanitation services is challenging due to household financial constraints and unmet tenure requirements. In the case of water supply, the last mile connectivity rests with the households, contingent upon producing documentary evidence of residence. Besides, due to the inherent high densities and overcrowding, it often becomes challenging to provide IHHLs. Due to this, government-sponsored slum upgradation schemes often forego the option of providing IHHLs, and rely on CTs/PTs instead, thereby creating inequality in terms of access and further marginalising slum dwellers.

A study conducted by the Indian Council of Medical Research (ICMR) based on a sero survey claimed that people living in urban slums were more likely to contract COVID-19 than those living in non-slum areas (Murhekar et al, 2020). Due to high density and shared water and sanitation services, the infection rate among slum residents was 44 per cent higher than non-slum residents (Dasgupta, Mukherjee, Agarwal, 2020).

### **Evidence from the ground (primary and secondary sources)**

*Challenges faced by slum dwellers due to high densities and overcrowding:* In Delhi, considering the pressure on healthcare systems, especially due to the high volume of cases, home quarantining was encouraged. However, as per the Deputy Health Officer, in slums owing to space constraints and lack of adequate water and sanitation facilities, COVID-19 patients were taken to institutional quarantine facilities set up by the government. Similarly, in Bhubaneswar, as per the local corporator, symptomatic slum dwellers were shifted to government quarantine centers due to overcrowded homes and lack of quarantine facilities within the slums. He further added that the lockdown compelled families to live in congested spaces, which further increased infection chances. Government officials in Ajmer and Jhansi stressed the need for slum redevelopment as part of ongoing public housing schemes like PMAY (U) to address overcrowding in these settlements.

Slum communities in Delhi shared that their houses are very small while their family size is big, and thus it was challenging for them to remain indoors during the lockdown. Slum-dwellers from Pune felt that house sizes, under the Maharashtra government's Slum Rehabilitation Authority (SRA) scheme, should be increased to enable adequate space for all members. In terms of alternative shelter, they also sought support for families whose houses were under construction under various government schemes.

*Challenges related to water supply:* Individual piped water supply was absent in most slums, and residents were accessing water from community stand posts or tankers. In Delhi and Jhansi, instances of unreliable water supply were reported. In Delhi, some slum dwellers had to fetch water from "water ATMs", and water tankers were also arranged by ASHA workers in coordination with the Delhi Jal Board (DJB). In Jhansi, with only 60% city-wide coverage by piped water supply, slum dwellers relied on government hand pumps. A shortage of clean water was reported during the summer months (May-July) when they used water supplied by

tankers. In Dhenkanal, CBOs flagged inadequate water supply, due to which residents were forced to fetch water from a location located at a distance of 1km from the slum. In Bhilai, there are common taps shared by 9-10 households, and some common hand pumps and the supply was reported to be limited. For construction workers in Bangalore, Bhubaneswar and Bhilai, water was provided at the construction site through water tankers. Although slum dwellers have reported water shortages and unreliable water supply, local officials from some cities like Malerkotla, Ajmer, and Dhenkanal denied any such water supply issue.

Evidence from a non-notified slum in Delhi revealed that lack of water access during the lockdown resulted in slum dwellers prioritising water usage for only cooking and drinking, postponing other uses such as bathing and washing clothes. Upon receiving one tanker of free water supply from the DJB, there was a riot like situation wherein every resident was trying to get their share before the supply got exhausted (WaterAid India, 2020). In such a situation, social distancing norms could not be practiced. Further, due to lockdown restrictions and containment measures, it became increasingly difficult to access water sources far away, contributing to an additional burden on women (Paliath, 2020).

**Box 11: Challenges faced by water utility in Nepal during COVID-19**

In Nepal, Kathmandu Upatyaka Khanepani Limited (KUKL) can meet only 19 per cent of the city's water needs in the dry season and 31 per cent in the wet season (Thapa, et al., 2019). The COVID – 19 pandemic highlights the disproportional WASH challenges for the poorest and marginalized in Kathmandu and elsewhere. In the face of inadequate water supplies, many in Kathmandu continue to rely on traditional public water sources, although these systems are increasingly dysfunctional or defunct (Khadka, Joshi, & Nicol, 2020).

*Challenges related to sanitation:* The lack of Individual Household Latrines (IHHLs) in slum communities emerged as a major impediment during the pandemic, as reported from large and small cities alike. In Delhi, around 50% of slum houses did not have toilets and were dependent on CTs. In Malerkotla, Bhilai and Ajmer, a vast majority of slum and informal settlements (bastis) lacked IHHLs and relied on CTs. Reliance on CTs and PTs meant that these places became potential sites for the spread of infection. As a response, most local governments carried out regular cleaning and sanitisation of these toilets and ensured access to soaps and water for handwashing. Caretakers of these toilet complexes were advised to ensure social distancing. In Dhenkanal, when households with infected members reported non-availability of a separate toilet and room, local officials recommended institutional quarantine.

A case study from Odisha reveals that while many slum dwellers were using available CTs, it was time-consuming because the long queues, due to which they often resorted to open defecation – exacerbated the slippage during the pandemic – people wanted to avoid using shared infrastructure. Thus they reverted to open defecation (ongoing study from Cuttack).

Local government officials interviewed shared that they have realised that in slums, the house spills into the public spaces and lanes as the houses are very small. It is challenging to ensure social distancing in such overcrowded and cramped spaces. Public facilities like community water standpoints and CTs are vital for slum dwellers, and there is a need to ensure that these are adequate and well maintained.

**Box 12: Findings from PSA – Government Response**

**Water Supply**

- “It is possible that demand [for water] during this period may go up and if people have to fetch water from the public stand post, supply hours may be required to be increased to ensure social distancing,” the Ministry of Health and Family Welfare (MoHFW) said in an April 14, 2020 advisory, issued following a Supreme Court order for a writ petition on the need for clean water (Paliath, 2020).
- The Ministry of Health and Family Welfare (MoHFW) has issued an advisory on the supply of safe drinking water amid the coronavirus pandemic. The advisory asks all Public Health Engineering Departments/ Boards/ Nigams of the State Governments to ensure potable water supply to vulnerable sections of society. The vulnerable sections include people residing in relief camps, places of quarantine, hospitals, old age homes, poor strata of society and slums (National Jal Jeevan Mission , 2020).

**Toilets:**

- Mumbai has a high density of population and particularly in slums. Mobile toilet facilities were installed in these localities as per the recommendations by the central government delegations that recently visited Mumbai’s Worli and Dharavi (Suryawanshi, 2020).
- Concentrated efforts are being made to clean toilets regularly and ensure adequate water in them, especially in densely populated areas where there are more chances of the virus spreading. The ward office has been asked to check if the facilities are unclean or filthy, and the toilets are to be cleaned at least thrice daily (Dastane, 2020).
- Amalgam Biotech, a Pune based global Biotechnology company, collaborates with Pune Municipal Corporation to improve sanitation & hygiene at Public Toilets, Bio Toilets & urinals in the densely populated areas of Pune under the Campaign name – #Toilet\_Saaf\_Toh\_Corona\_Khalaas (punekarnews, 2020).

**Recommendations**

Slum upgradation through improved tenure security, housing, house access to water and sanitation and other public amenities should be prioritised as a part of the “build back better” strategy. This will help mitigate the vulnerability of these settlements in the wake of pandemics and/or disasters.

Public housing programmes, such as PMAY, should include in-situ slum upgrading within its ambit. Based on a holistic planning approach towards creating an inclusive habitat, the slum upgradation should include improving access to housing, basic amenities (water, sanitation, etc.) and social infrastructure (including parks and playgrounds, community centres, health centres, primary school/Anganwadis, etc).

Through directives and guidelines, Indian government should encourage states to improve tenure security among slum dwellers, which can protect them against eviction and encourage households to invest in upgrading housing and in-house access to water sanitation facilities.



Access to piped water supply and Individual Household Latrines (IHHLs) within the dwelling unit reduces dependence on shared infrastructure, thereby decreasing exposure to overcrowded spaces and infection risk. Therefore, government-led slum upgradation programmes should ensure the provision of piped water supply and IHHLs within the premises as far as possible. The provision of basic services must be delinked with the prevailing tenorial conditions. Further, there is a need to address the operationalisation barriers inherent in the delinking process by understanding the broader political, institutional, legal, economic, cultural and historical contexts.

The construction of new toilet facilities must be supplemented by the proper performance of on-site sanitation systems. Local governments must also prioritise adequate service provision for desludging by regulating the desludging market, introducing price ceiling mechanisms for desludging services in the slum and low-income areas and ensuring timely services. Local governments and service providers must be encouraged to integrate financial sustainability in providing water to informal settlements and slum areas by devising strategies for Operation and Maintenance (O&M), billing and collection, and tariff setting.

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